

Inflation Monitor

January 2022
(Base Year: 2015-16)



State Bank of Pakistan
Statistics & DWH Department

ISSN 1992-8327 (print)

ISSN 1992-8335 (online)

The analysis in this document is based on data

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

http://www.sbp.org.pk/publications/inflation_Monitor

Table of Contents

1.	Inflation in Brief	1
2.	Heat-maps of CPI inflation	3
3.	Trends in Inflation	7
4.	Movement in Price Indices (Moving Averages)	8
5.	Movement in Price Indices (Month-on-Month)	9
6.	Trends in Consumer Price Indices and Inflation	11
7.	Weighted Contribution	14
8.	Inflation Diffusion Index	16
9.	Domestic Commodity Prices	18
10.	Inflation in Global Context	19
11.	Global Commodity Prices	20
12.	Seasonal Adjustment in CPI	21
	List of Tables	26
	Table A0: Inflation – Summary	26
	Table A1: National CPI Inflation by Groups (YoY and MoM in percent)	27
	Table A2: Urban CPI Inflation by Groups (YoY and MoM in percent)	27
	Table A3: Rural CPI Inflation by Groups (YoY and MoM in percent)	28
	Table A4: Top Ten Contributors to Urban CPI Inflation (YoY) – January 2022	29
	Table A5: Top Ten Contributors to Urban CPI Inflation (MoM) in January 2022	30
	Table A6: Top and Bottom Fifteen Contributors to Urban CPI Inflation (YoY) in January 2022	31
	Table A7: Top and Bottom Fifteen Contributors to Urban CPI Inflation (MoM) in January 2022	32
	Table A8: Top and Bottom Fifteen Contributors to MoM Urban CPI Food Inflation in January 2022	33
	Table A9: Top and Bottom Fifteen Contributors to MoM Urban CPI Non-Food Inflation in January 2022	34
	Table A10: Top Ten Contributors to Rural CPI Inflation (YoY) in January 2022	35
	Table A11: Top Ten Contributors to Rural CPI Inflation (MoM) in January 2022	36
	Table A12: Top and Bottom Fifteen Contributors to Rural CPI Inflation (YoY) in January 2022	37
	Table A13: Top and Bottom Fifteen Contributors to Rural CPI (MoM) Inflation in January 2022	38
	Table A14: Top and Bottom Fifteen Contributors to MoM Rural CPI Food Inflation in January 2022	39
	Table A15: Top and Bottom Fifteen Contributors to MoM Rural CPI Non-Food Inflation in January 2022	40
	Table A16: Distribution of Price Changes (YoY) - Selected Urban CPI Items: January 2022	41
	Table A17: Distribution of Price Changes (YoY) - Selected Rural CPI Items: January 2022	42
	Table A18: Distribution of Price Changes (YoY) - WPI Items: January 2022	43
	Table A19: International Commodity Prices/Indices	44
	Table A20: National CPI Data Series Original and Seasonally Adjusted	45
	Table A21: Urban CPI Data Series Original and Seasonally Adjusted	46
	Table A22: Rural CPI Data Series Original and Seasonally Adjusted	47
	Table A23: National CPI Monthly & Average Seasonal Factors	48
	Table A24: Urban CPI Monthly & Average Seasonal Factors	48
	Table A25: Rural CPI Monthly & Average Seasonal Factors	49
	Table A26: National CPI (Month-on-Month) Original & Seasonally Adjusted	50
	Table A27: Urban CPI (Month-on-Month) Original & Seasonally Adjusted Series	51

Table A28: Rural CPI (Month-on-Month) Original & Seasonally Adjusted Series	52
List of Figures.....	53
Figure A1: National CPI Non-food Inflation (YoY, 12MMA, MoM in percent).....	53
Figure A2: Urban CPI Non-food Inflation (YoY, 12MMA, MoM in percent)	54
Figure A3: Rural CPI Non-food Inflation (YoY, 12MMA, MoM in percent)	55
Figure A4: Frequency Distribution of Price Changes of Urban CPI Items (YoY)	56
Figure A5: Frequency Distribution of Price Changes of Rural CPI Items (YoY).....	57
Figure A6: Frequency Distribution of Price Changes of Urban CPI Items (MoM).....	58
Figure A7: Frequency Distribution of Price Changes of Rural CPI Items (MoM).....	59
Figure A8: Frequency Distribution of Price Changes of WPI Commodities (YoY)	60
Technical Notes, Definitions and Methodologies	61
Technical Notes	61
Methodology for Estimating Inflation Diffusion Index for Pakistan	63

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, increased to 13.0 percent in January 2022 from 12.3 percent in previous month and stood at 5.7 percent in the corresponding month of last year. However, on month-on-month basis (MoM), National CPI Inflation, increased to 0.4% in January 2022 as compared to a deflation of 0.02% in previous month.
2. Urban CPI Inflation (on year-on-year basis) increased from 12.7 percent in December 2021 to 13.0 percent in January 2022. It stood at 5.0 percent during the corresponding month of last year. Urban CPI Inflation (on month-on-month basis) decreased from 0.3 percent in December 2021 to 0.1 percent in January 2022 whereas a deflation of 0.2% was observed in corresponding month of last year. Seasonally adjusted month-on-month CPI Inflation recorded at 0.3 percent in January 2022 compared to 1.2 percent in the previous month.
3. Rural CPI Inflation (on year-on-year basis) increased to 12.9 percent in January 2022 from 11.6 percent in previous month and stood at 6.6 percent during the corresponding month of last year. Rural CPI Inflation (on month-on-month basis) increased to 0.9% in January 2022 from a deflation of 0.5% in the previous month. Seasonally adjusted month-on-month CPI Inflation recorded at 1.5 percent in January 2022 as compared to 0.6 percent in the previous month.
4. Urban Core Inflation (trimmed) on year-on-year basis decreased to 10.6 percent in January 2022 from 10.8 percent in previous month and stood at 5.7 percent during the corresponding month of last year. On month-on-month basis, Urban Core Inflation (trimmed) stood at 0.5 percent in January 2022 as compared to 1.1 percent in previous month and 1.0 percent during the corresponding month of last year.
5. Rural Core Inflation (trimmed) on year-on-year basis increased to 10.9 percent in January 2022 from 10.3 percent in December 2021 and stood at 8.1 percent during the corresponding month of last year. On month-on-month basis, Rural Core Inflation (trimmed) stood at 1.1 percent in January 2022 as compared to 1.0 percent in previous month and 1.2 percent during corresponding month of last year.
6. Urban Core (Non-food, Non-energy (NFNE)) Inflation on year-on-year basis decreased to 8.2 percent in January 2022 from 8.3 in previous month and stood at 5.4 percent during corresponding month of last year. On month-on-month basis, Urban Core (NFNE) Inflation decreased to 0.8 percent in January 2022 from 1.1 percent in previous month and stood at 0.9 percent during the corresponding month of last year.
7. Rural Core (Non-food, Non-energy (NFNE)) Inflation on year-on-year basis increased to 9.0 percent in January 2022 from 8.9 percent in previous month. It stood at 7.8 percent during the corresponding month of last year. On month-on-month basis, it increased from 1.1 percent in December 2021 to 1.2 percent in January 2022 and stood at 1.1 percent during the corresponding month of last year.
8. WPI Inflation on year-on-year basis decreased from 26.2 percent in December 2021 to 24.0 percent in January 2022. It stood at 6.4 percent during the corresponding month of last year. On month-on-month basis it increased to 0.6 percent in January 2022 from a deflation of 0.2 percent in previous month.


9. SPI Inflation on year-on-year basis increased to 19.5 percent in January 2022 from 19.3 percent in previous month. During corresponding month of last year, SPI Inflation stood at 6.4 percent. On month-on-month basis, a deflation of 0.2 percent is observed in January 2022 as compared to an inflation of 0.3 percent in the previous month.

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)														
		Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22
Headline	National	5.7	8.7	9.1	11.1	10.9	9.7	8.4	8.4	9.0	9.2	11.5	12.3	13.0
	Urban	5.0	8.6	8.7	11.0	10.8	9.6	8.7	8.3	9.1	9.6	12.0	12.7	13.0
	Rural	6.6	8.8	9.5	11.3	10.9	9.7	8.0	8.4	8.8	8.7	10.9	11.6	12.9
Food	Urban	7.3	10.3	11.5	15.7	15.3	11.0	9.4	10.2	10.8	9.4	11.9	11.7	13.3
	Rural	7.2	9.1	11.1	14.1	12.8	9.8	7.3	9.1	9.1	7.2	8.6	9.0	11.8
Core	Urban	5.4	6.4	6.3	7.0	6.8	6.7	6.9	6.3	6.4	6.7	7.6	8.3	8.2
	Rural	7.8	7.7	7.3	7.7	7.6	7.3	6.9	6.2	6.2	6.7	8.2	8.9	9.0

Source: Pakistan Bureau of Statistics and SBP staff estimates

Key 


Heat-map of National, Urban and Rural CPI inflation (MoM)														
		Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22
Headline	National	-0.2	1.8	0.4	1.0	0.1	-0.3	1.3	0.6	2.1	1.9	3.0	0.0	0.4
	Urban	-0.2	2.3	0.3	1.3	0.2	-0.4	1.3	0.5	2.0	1.7	2.9	0.3	0.1
	Rural	-0.3	1.1	0.5	0.6	0.0	-0.1	1.4	0.7	2.3	2.2	3.1	-0.5	0.9
Food	Urban	-2.1	1.3	1.7	2.7	1.1	-1.9	1.5	0.5	3.6	1.5	3.9	-2.3	-0.8
	Rural	-2.2	0.2	1.5	0.9	0.2	-0.8	1.6	0.8	3.7	2.6	3.3	-3.1	0.4
Core	Urban	0.9	1.1	0.2	0.9	0.2	0.3	0.8	0.2	0.4	0.9	1.1	1.1	0.8
	Rural	1.1	0.5	0.3	0.7	0.3	0.4	0.7	0.2	0.5	1.0	1.8	1.1	1.2

Source: Pakistan Bureau of Statistics and SBP staff estimates

Key 


Heat-map of National CPI inflation (YoY)														
	Weights	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22
General	100.00	5.7	8.7	9.1	11.1	10.9	9.7	8.4	8.4	9.0	9.2	11.5	12.3	13.0
Food and Non-Alcoholic Beverages	34.58	6.7	9.7	11.6	15.9	14.8	10.5	8.2	10.0	10.2	8.3	10.5	10.3	12.8
Alcoholic Beverages, Tobacco	1.02	5.8	5.7	5.9	4.9	5.0	5.0	3.1	2.1	2.0	1.9	1.8	2.0	2.0
Clothing and Footwear	8.60	9.5	11.3	10.7	11.9	10.7	10.0	9.5	9.3	9.2	9.3	9.8	11.2	11.2
Housing, Water, Elec., Gas and Other Fuels	23.63	3.4	10.6	8.8	9.7	8.4	9.1	9.2	8.0	9.8	12.0	14.8	16.6	15.5
Furnishing and Household Equipment Maintenance	4.10	7.6	8.5	8.9	9.5	9.6	9.8	9.8	9.6	9.3	9.2	10.4	12.3	13.0
Health	2.79	8.5	9.2	8.8	9.0	9.0	9.4	8.6	8.5	8.0	8.0	8.5	9.4	9.2
Transport	5.91	-2.6	-1.0	2.9	6.5	14.0	16.4	10.5	8.1	9.1	14.4	24.4	24.1	23.1
Communication	2.21	0.5	0.6	0.6	1.5	1.5	1.6	2.8	2.8	2.8	2.8	2.5	2.5	2.6
Recreation and Culture	1.59	4.6	4.8	4.6	4.6	4.9	6.2	5.9	6.4	6.9	7.5	7.5	7.7	7.8
Education	3.79	1.3	1.2	1.0	1.6	1.6	1.8	2.0	2.9	2.6	2.2	2.4	2.8	3.2
Restaurants and Hotels	6.92	8.9	8.0	8.1	8.2	8.6	8.8	8.5	7.3	7.8	8.3	11.0	12.6	13.0
Misc. Goods and Services	4.87	11.5	12.3	10.6	10.0	10.7	10.9	9.4	5.9	7.4	8.7	10.0	10.6	10.3

Source: Pakistan Bureau of Statistics and SBP staff estimates

Key 

Heat-map of Urban CPI inflation (YoY)														
	Weights	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22
General	100.00	5.0	8.6	8.7	11.0	10.8	9.6	8.7	8.3	9.1	9.6	12.0	12.7	13.0
Food and Non-Alcoholic Beverages	30.42	6.7	10.5	11.9	17.0	16.3	11.1	9.2	10.6	11.1	9.4	12.2	11.7	13.6
Alcoholic Beverages, Tobacco	0.85	6.2	6.3	6.9	6.0	6.1	6.1	3.8	2.8	2.6	2.1	1.9	2.1	2.0
Clothing and Footwear	8.01	8.5	12.3	11.5	12.7	11.2	10.5	10.4	10.3	10.0	10.2	9.5	12.2	12.4
Housing, Water, Elec., Gas and Other Fuels	27.03	2.9	10.0	8.2	9.3	7.9	8.4	8.5	7.2	8.9	11.1	13.6	15.4	14.2
Furnishing and Household Equipment Maintenance	4.09	6.4	7.4	7.9	8.6	8.8	8.9	9.5	9.4	9.5	9.1	10.0	11.4	11.9
Health	2.31	7.4	8.7	8.9	9.4	9.6	10.3	9.5	9.1	8.7	8.4	9.3	10.1	10.0
Transport	6.14	-2.8	-0.8	3.2	6.8	14.2	17.0	11.4	8.8	9.7	15.0	25.7	25.0	23.4
Communication	2.35	0.6	0.7	0.7	2.0	2.0	2.0	3.8	3.8	3.8	3.8	3.4	3.3	3.4
Recreation and Culture	1.73	3.3	3.6	3.3	3.2	3.4	5.1	5.4	5.5	6.3	7.6	7.5	7.9	8.1
Education	4.88	1.1	1.1	0.9	1.2	1.2	1.3	1.5	2.5	2.3	1.9	2.2	2.6	3.0
Restaurants and Hotels	7.41	8.7	7.9	8.4	8.5	9.1	9.4	9.5	7.6	8.5	8.6	11.4	13.2	13.2
Misc. Goods and Services	4.77	10.4	11.8	10.3	9.8	10.8	10.9	9.3	6.1	8.0	9.3	10.1	10.4	10.1

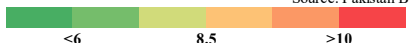
Source: Pakistan Bureau of Statistics and SBP staff estimates



<6 8.5 >10

Heat-map of Rural CPI inflation (YoY)														
	Weights	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22
General	100.00	6.6	8.8	9.5	11.3	10.9	9.7	8.0	8.4	8.8	8.7	10.9	11.6	12.9
Food and Non-Alcoholic Beverages	40.87	6.6	8.9	11.2	14.7	13.2	9.8	7.2	9.3	9.3	7.1	8.7	8.9	12.0
Alcoholic Beverages, Tobacco	1.28	5.3	5.0	4.8	3.7	3.8	3.8	2.4	1.4	1.3	1.6	1.7	1.9	2.0
Clothing and Footwear	9.48	10.7	10.1	9.7	10.8	10.0	9.3	8.4	8.1	8.2	8.2	10.1	10.1	9.7
Housing, Water, Elec., Gas and Other Fuels	18.49	4.5	12.2	10.1	10.7	9.7	10.7	10.6	9.7	11.6	14.0	17.5	19.2	18.5
Furnishing and Household Equipment Maintenance	4.10	9.5	10.1	10.3	10.8	10.8	11.0	10.3	10.0	8.9	9.3	11.0	13.7	14.8
Health	3.51	9.6	9.8	8.8	8.6	8.4	8.6	7.7	7.8	7.3	7.5	7.8	8.7	8.3
Transport	5.56	-2.2	-1.2	2.4	6.1	13.5	15.5	9.0	6.9	8.2	13.4	22.3	22.5	22.5
Communication	1.99	0.4	0.3	0.4	0.8	0.8	0.9	1.0	1.0	0.9	1.0	0.8	0.9	1.1
Recreation and Culture	1.38	7.0	7.0	7.0	7.0	7.5	8.0	6.9	8.0	7.9	7.3	7.5	7.3	7.4
Education	2.13	2.1	1.8	1.5	2.9	2.9	3.6	4.1	4.5	4.1	3.2	3.2	3.5	3.7
Restaurants and Hotels	6.19	9.3	8.2	7.8	7.6	7.6	7.7	6.8	6.9	6.6	7.6	10.3	11.5	12.6
Misc. Goods and Services	5.02	13.2	12.8	11.1	10.3	10.6	10.9	9.5	5.7	6.5	7.9	9.7	10.7	10.8

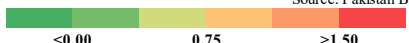
Source: Pakistan Bureau of Statistics and SBP staff estimates



<6 8.5 >10

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

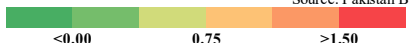
Source: Pakistan Bureau of Statistics and SBP staff estimates



<0.00 0.75 >1.50

Heat-map of Urban CPI inflation (MoM)														
	Weights	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22
General	100.00	-0.2	2.3	0.3	1.3	0.2	-0.4	1.3	0.5	2.0	1.7	2.9	0.3	0.1
Food and Non-Alcoholic Beverages	30.42	-2.7	1.5	1.8	3.2	1.1	-2.5	1.7	0.6	4.0	1.6	4.3	-3.0	-1.1
Alcoholic Beverages, Tobacco	0.85	0.0	0.2	0.6	0.1	0.2	0.1	0.0	0.0	0.2	0.2	0.3	0.1	0.0
Clothing and Footwear	8.01	0.5	4.1	0.8	1.1	0.1	0.1	0.2	0.1	0.1	0.4	1.3	2.9	0.7
Housing, Water, Elec., Gas and Other Fuels	27.03	1.6	4.2	-1.6	0.7	-1.1	0.4	1.4	0.5	1.6	2.3	2.0	2.6	0.6
Furnishing and Household Equipment Maintenance	4.09	0.5	1.6	0.9	0.8	0.5	0.5	1.0	0.4	0.8	0.7	1.4	1.8	0.9
Health	2.31	0.6	1.5	1.1	0.5	0.5	0.8	0.2	0.6	0.6	0.6	1.1	1.6	0.5
Transport	6.14	1.8	2.2	-0.7	-1.2	0.1	1.2	4.1	0.7	1.5	5.3	6.6	1.3	0.4
Communication	2.35	0.1	0.1	0.0	1.3	0.0	0.0	1.8	0.0	0.0	0.1	0.0	0.0	0.1
Recreation and Culture	1.73	0.1	0.4	0.3	0.0	0.2	1.8	0.7	0.6	1.3	1.5	0.3	0.5	0.3
Education	4.88	0.1	0.0	0.0	0.3	0.0	0.1	0.2	1.1	0.0	0.2	0.2	0.5	0.5
Restaurants and Hotels	7.41	0.7	0.4	1.1	0.2	0.6	0.8	0.4	0.1	1.4	1.0	3.5	2.3	0.6
Misc. Goods and Services	4.77	1.0	1.6	-0.3	0.6	0.8	0.9	0.1	0.5	1.4	1.0	1.7	0.6	0.7

Source: Pakistan Bureau of Statistics and SBP staff estimates



<0.00 0.75 >1.50

Heat-map of Rural CPI inflation (MoM)														
	Weights	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22
General	100.00	-0.3	1.1	0.5	0.6	0.0	-0.1	1.4	0.7	2.3	2.2	3.1	-0.5	0.9
Food and Non-Alcoholic Beverages	40.87	-2.6	0.1	1.7	1.0	0.2	-0.9	1.8	0.9	4.1	2.7	3.6	-3.7	0.2
Alcoholic Beverages, Tobacco	1.28	0.2	0.1	0.0	-0.4	0.2	0.3	-0.1	0.0	0.6	0.5	0.1	0.5	0.3
Clothing and Footwear	9.48	1.2	0.3	1.3	1.0	0.5	0.3	0.4	0.1	0.4	0.6	2.6	0.9	0.8
Housing, Water, Elec., Gas and Other Fuels	18.49	2.5	4.6	-1.8	0.0	-1.4	0.6	1.5	1.0	1.7	2.7	3.3	3.2	1.9
Furnishing and Household Equipment Maintenance	4.10	0.4	1.1	1.2	0.9	0.6	0.7	0.7	0.6	0.7	1.0	2.0	3.1	1.3
Health	3.51	1.3	0.9	0.3	0.5	0.1	0.3	0.3	0.5	0.4	0.7	1.3	1.7	0.9
Transport	5.56	2.0	1.5	-0.6	-1.2	0.1	0.9	3.9	0.8	1.0	5.2	5.8	1.3	2.0
Communication	1.99	0.0	0.0	0.0	0.4	0.0	0.1	0.2	0.0	0.0	0.2	0.0	0.0	0.2
Recreation and Culture	1.38	0.7	0.1	0.2	0.2	0.8	0.5	0.5	1.2	1.1	0.7	0.5	0.6	0.7
Education	2.13	0.1	0.1	0.0	1.4	0.0	0.7	0.5	0.4	0.0	0.1	0.0	0.3	0.2
Restaurants and Hotels	6.19	0.6	0.4	0.1	0.2	0.6	0.5	0.3	0.7	0.6	1.9	3.5	1.6	1.6
Misc. Goods and Services	5.02	1.0	0.9	-0.7	0.2	0.5	1.1	1.2	0.1	1.3	1.9	2.0	0.9	1.0

Source: Pakistan Bureau of Statistics and SBP staff estimates

<0.00 0.75 >1.50

Heat-map of Rural CPI inflation (YoY)														
	Weights	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22
Rural	100.00	6.6	8.8	9.5	11.3	10.9	9.7	8.0	8.4	8.8	8.7	10.9	11.6	12.9
Food	45.95	7.2	9.1	11.1	14.1	12.8	9.8	7.3	9.1	9.1	7.2	8.6	9.0	11.8
Non-perishable	40.16	13.1	13.9	16.9	17.2	16.9	12.2	10.3	9.9	12.3	11.2	11.7	12.8	12.8
Perishable	5.79	-23.9	-19.3	-19.4	0.5	-8.2	-5.5	-9.7	5.4	-6.8	-12.5	-5.5	-12.0	6.6
Non Food	54.05	6.1	8.6	8.1	8.9	9.2	9.7	8.7	7.7	8.5	10.0	13.0	14.0	13.9
Energy	11.41	0.1	12.3	11.1	13.8	16.0	19.8	15.7	13.8	17.2	23.2	32.0	34.0	32.7
NFNE (Core)	42.64	7.8	7.7	7.3	7.7	7.6	7.3	6.9	6.2	6.2	6.7	8.2	8.9	9.0
HRI	8.61	5.8	5.8	5.8	6.6	6.6	6.6	6.1	6.1	6.1	6.6	6.6	6.6	5.9
Core Excl HRI	34.03	8.2	8.1	7.7	8.0	7.8	7.5	7.1	6.3	6.3	6.7	8.6	9.5	9.7

Source: Pakistan Bureau of Statistics and SBP staff estimates

<6 8.5 >10

Heat-map of Urban CPI inflation (YoY)														
	Weights	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22
Urban	100.00	5.0	8.6	8.7	11.0	10.8	9.6	8.7	8.3	9.1	9.6	12.0	12.7	13.0
Food	36.80	7.3	10.3	11.5	15.7	15.3	11.0	9.4	10.2	10.8	9.4	11.9	11.7	13.3
Non-perishable	32.34	12.2	15.4	17.2	19.4	19.3	13.5	12.7	12.2	15.3	13.2	15.3	15.5	14.7
Perishable	4.46	-18.9	-15.7	-15.6	4.6	-0.2	-2.5	-8.7	1.7	-9.6	-8.9	-1.9	-8.7	6.3
Non Food	63.20	3.7	7.6	7.1	8.2	8.3	8.8	8.2	7.2	8.1	9.7	12.0	13.4	12.8
Energy	9.47	-4.5	14.2	11.8	14.9	16.6	21.1	16.1	12.2	17.8	25.9	37.2	41.3	38.1
NFNE (Core)	53.73	5.4	6.4	6.3	7.0	6.8	6.7	6.9	6.3	6.4	6.7	7.6	8.3	8.2
HRI	19.26	4.8	4.8	4.8	6.2	6.2	6.2	6.1	6.1	6.1	6.6	6.6	6.6	6.1
Core Excl HRI	34.47	5.7	7.3	7.1	7.5	7.2	7.0	7.3	6.4	6.5	6.8	8.1	9.2	9.3

Source: Pakistan Bureau of Statistics and SBP staff estimates

<6 8.5 >10

Heat-map of Rural CPI inflation (MoM)														
	Weights	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22
Rural	100.00	-0.3	1.1	0.5	0.6	0.0	-0.1	1.4	0.7	2.3	2.2	3.1	-0.5	0.9
Food	45.95	-2.2	0.2	1.5	0.9	0.2	-0.8	1.6	0.8	3.7	2.6	3.3	-3.1	0.4
Non-perishable	40.16	1.0	1.7	1.6	-1.2	1.8	-1.0	0.4	0.5	4.1	2.0	1.8	-0.4	1.0
Perishable	5.79	-21.6	-11.1	2.8	18.5	-10.2	-0.3	12.1	3.3	4.3	7.1	14.5	-21.8	-5.1
Non Food	54.05	1.5	2.0	-0.4	0.3	-0.3	0.6	1.2	0.6	1.0	1.9	3.0	1.9	1.4
Energy	11.41	2.9	7.9	-2.8	-1.3	-2.4	1.1	3.1	2.2	2.9	5.2	7.0	4.4	1.9
NFNE (Core)	42.64	1.1	0.5	0.3	0.7	0.3	0.4	0.7	0.2	0.5	1.0	1.8	1.1	1.2
HRI	8.61	2.8	0.0	0.0	1.2	0.0	0.0	1.2	0.0	0.0	1.3	0.0	0.0	2.1
Core Excl HRI	34.03	0.7	0.6	0.3	0.6	0.4	0.5	0.6	0.2	0.6	1.0	2.2	1.4	1.0

Source: Pakistan Bureau of Statistics and SBP staff estimates

<0.00 0.75 >1.50

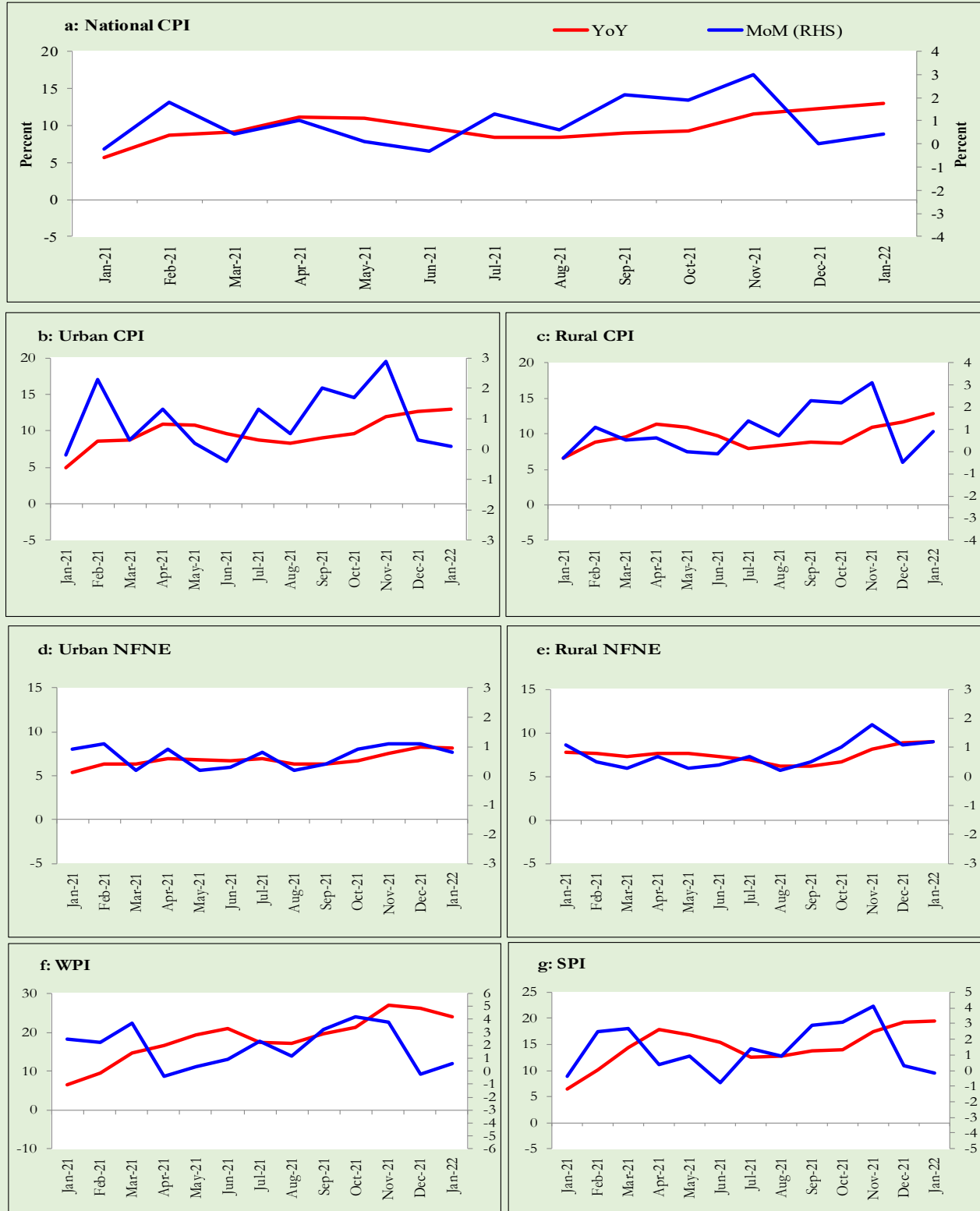
Heat-map of Urban CPI inflation (MoM)														
	Weights	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22
Urban	100.00	-0.2	2.3	0.3	1.3	0.2	-0.4	1.3	0.5	2.0	1.7	2.9	0.3	0.1
Food	36.80	-2.1	1.3	1.7	2.7	1.1	-1.9	1.5	0.5	3.6	1.5	3.9	-2.3	-0.8
<i>Non-perishable</i>	32.34	0.3	3.1	1.5	0.5	2.5	-2.3	0.8	0.3	4.2	1.0	2.4	0.2	-0.4
<i>Perishable</i>	4.46	-18.7	-9.1	3.7	23.0	-7.1	-3.9	7.3	2.0	2.6	5.2	15.1	-20.2	-5.4
Non Food	63.20	1.1	2.8	-0.6	0.5	-0.3	0.5	1.1	0.5	1.1	1.8	2.2	2.0	0.6
<i>Energy</i>	9.47	2.0	12.2	-4.1	-1.5	-3.2	1.3	3.5	2.1	4.6	6.0	7.6	5.8	-0.4
<i>NFNE (Core)</i>	53.73	0.9	1.1	0.2	0.9	0.2	0.3	0.8	0.2	0.4	0.9	1.1	1.1	0.8
<i>HRI</i>	19.26	2.0	0.0	0.0	1.6	0.0	0.0	1.4	0.0	0.0	1.4	0.0	0.0	1.5
<i>Core Excl HRI</i>	34.47	0.3	1.8	0.2	0.5	0.3	0.5	0.4	0.3	0.6	0.6	1.7	1.7	0.4

Source: Pakistan Bureau of Statistics and SBP staff estimates

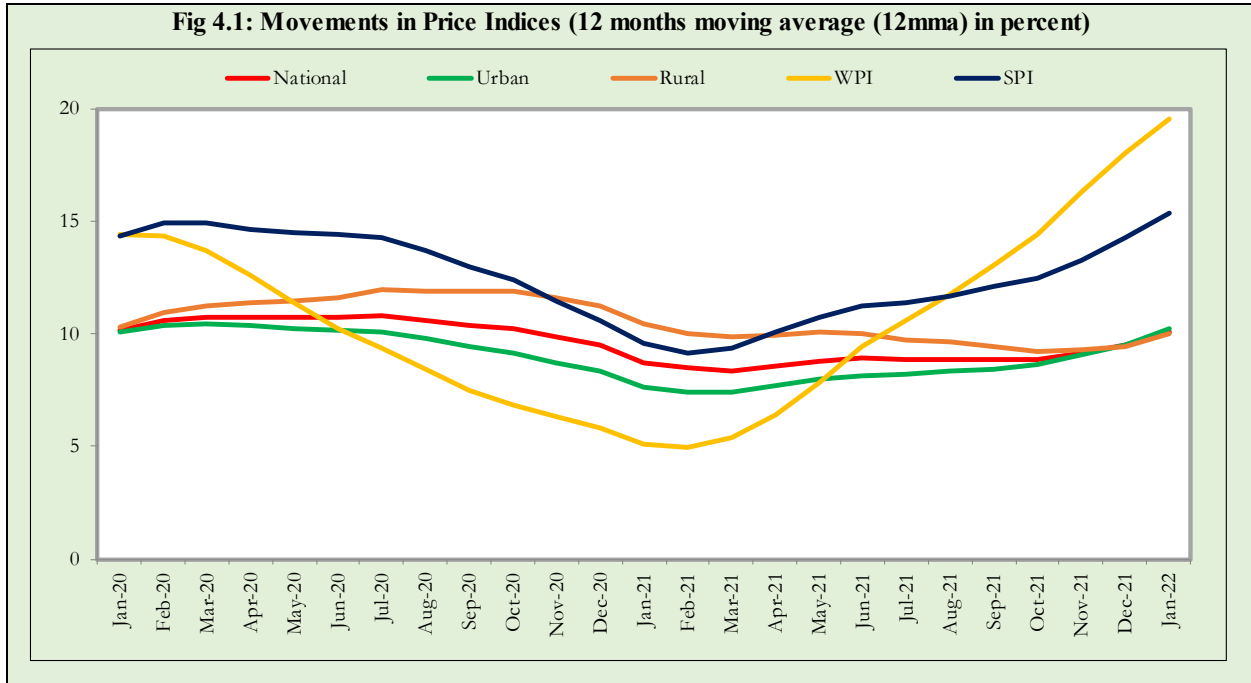
<0.00 0.75 >1.50

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)

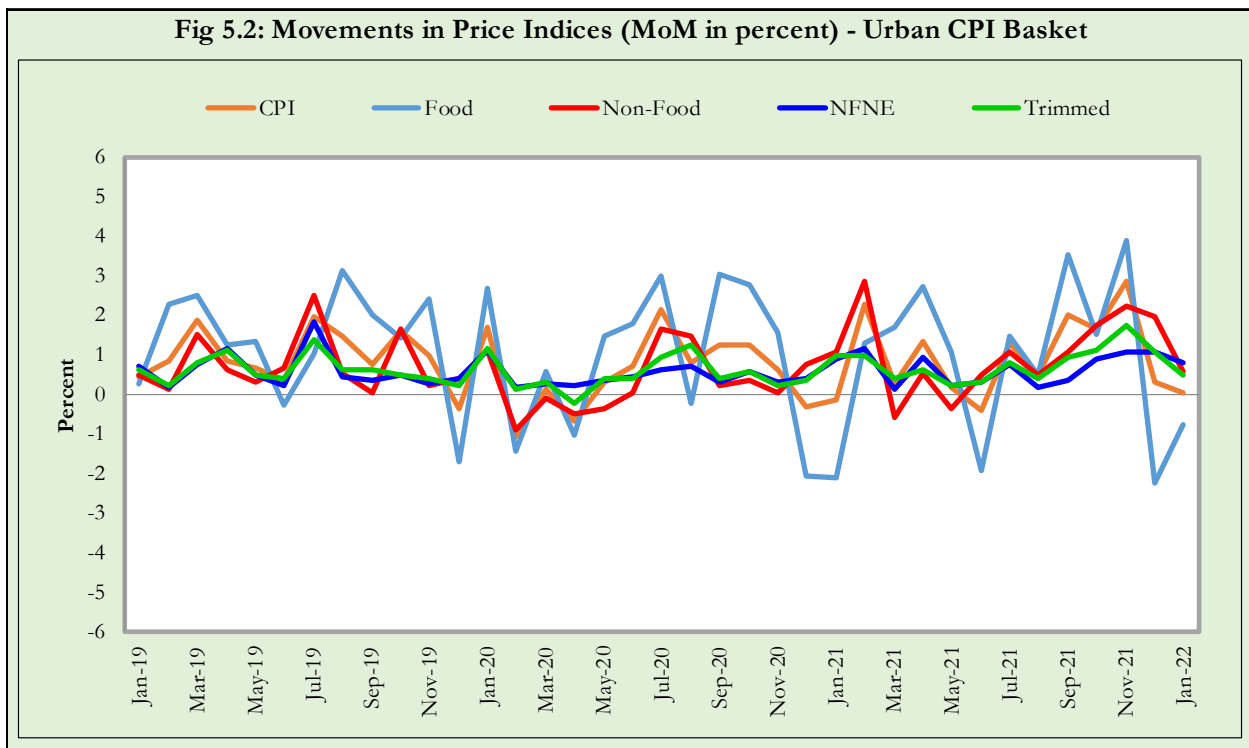
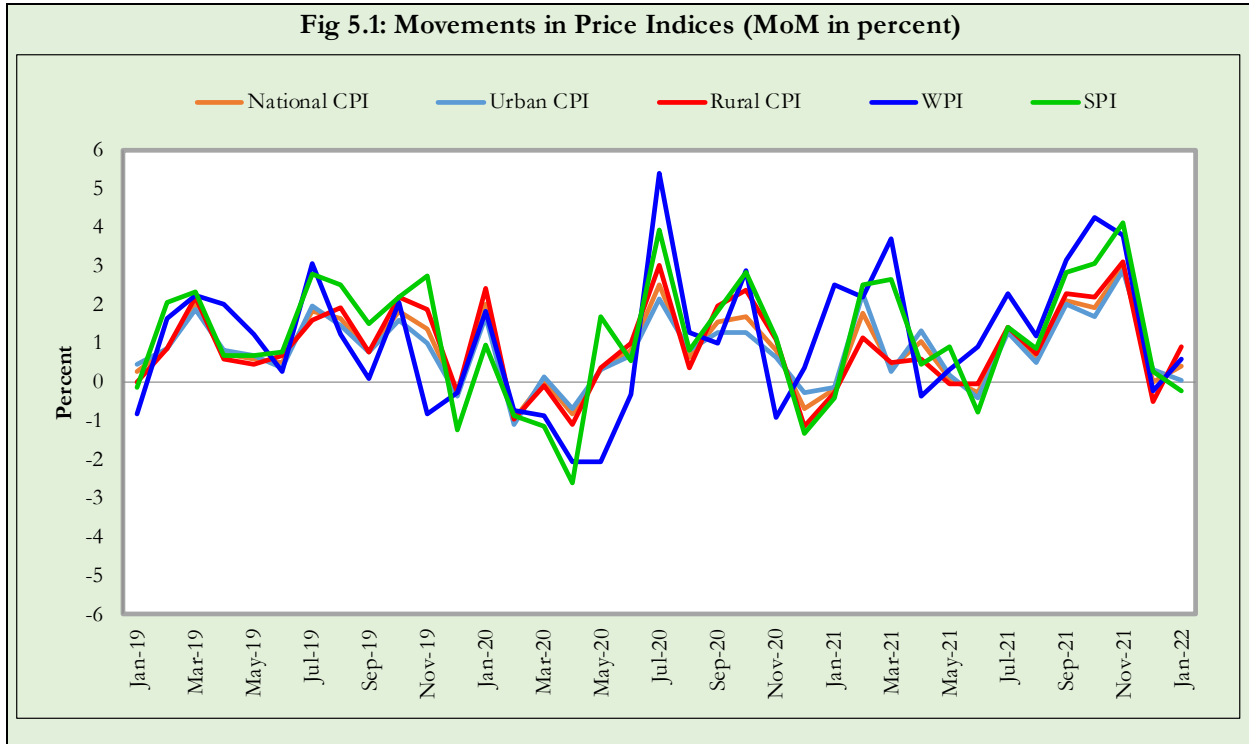
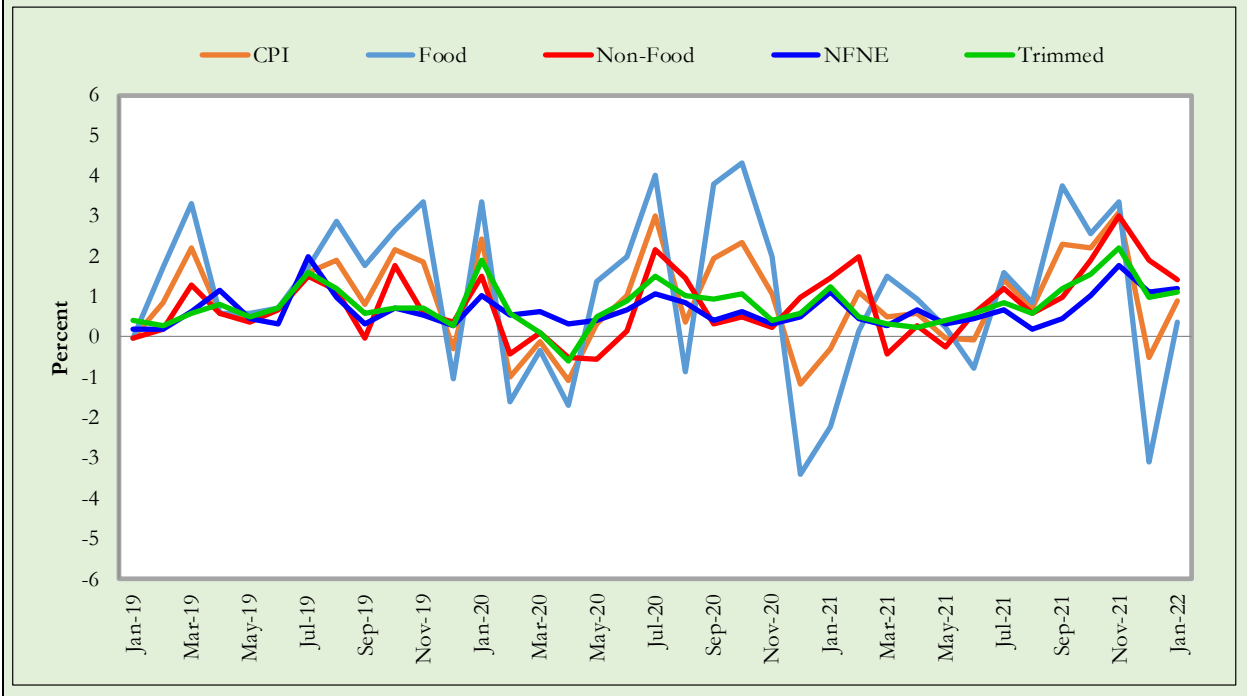
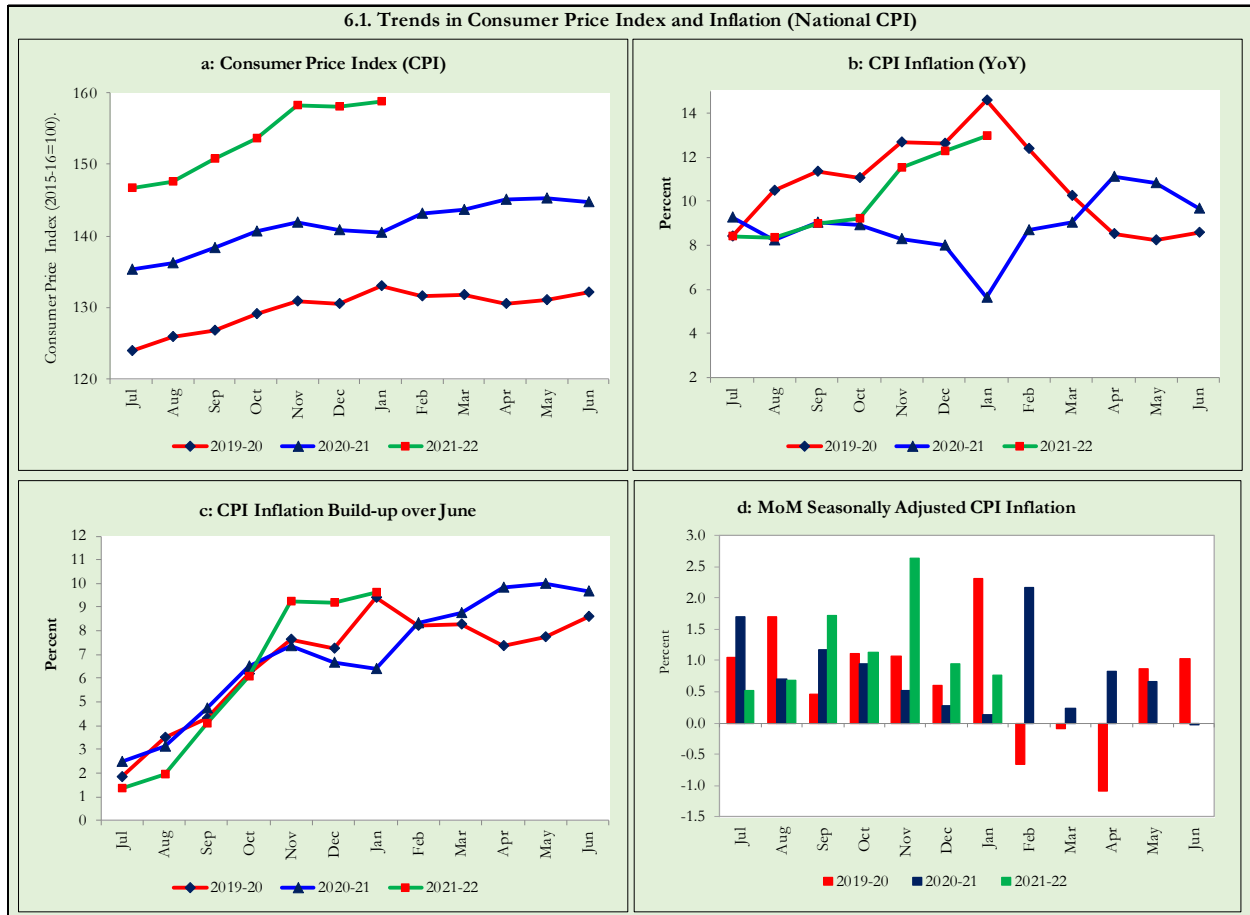


Fig 5.3: Movements in Price Indices (MoM in percent) - Rural CPI Basket

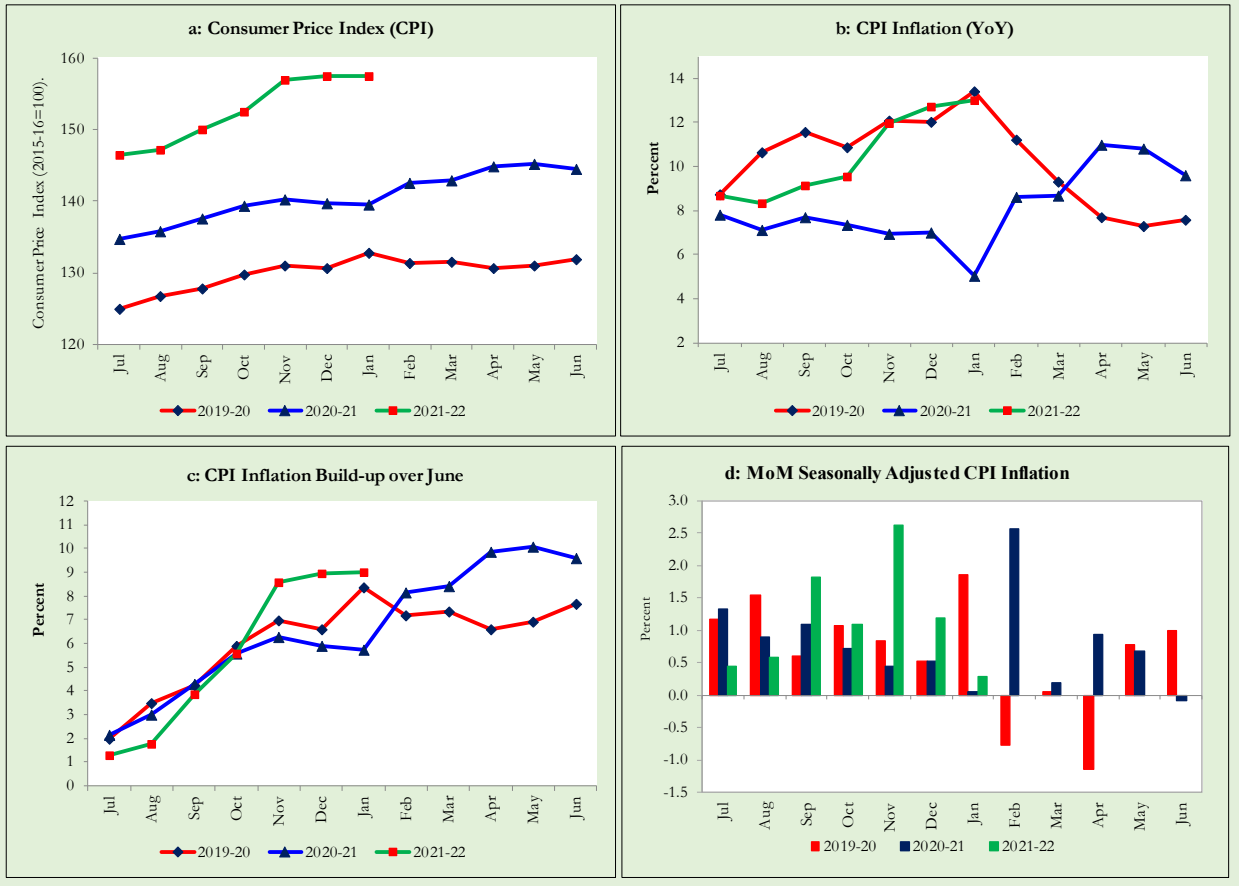


6. Trends in Consumer Price Indices and Inflation

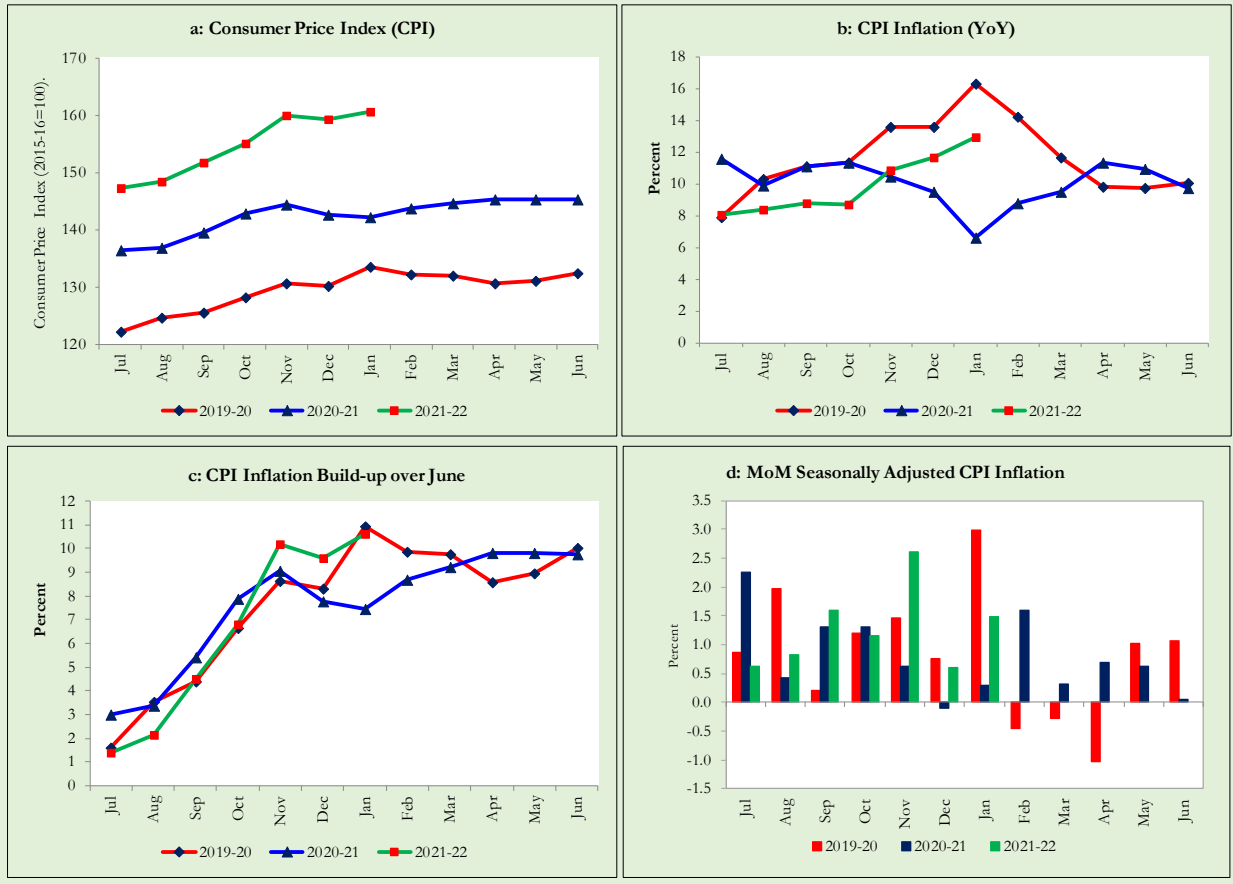
Monthly Consumer Price Indices, YoY growth rates and inflation build up over June along with seasonally adjusted (MoM) growth rates in CPI (National, Urban and Rural) is summarized in the following graphs (Figure 6.1 to 6.3).



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 increased to 38.2 percent during January 2022 from 35.0 percent in previous month. It was 53.2 percent during corresponding month of last year. The weighted contribution of non-food group decreased to 61.8 percent in January 2022 from 65.0 percent in previous month. Weighted Contribution of non-food was 46.8 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
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	100.0	52.4	2.1	50.4	47.6	13.0	34.6	23.7	10.9
May-21	100.1	52.0	-0.1	52.1	48.0	13.9	34.1	23.2	10.9
Jun-21	100.0	43.0	-1.2	44.2	57.1	19.4	37.8	25.5	12.3
Jul-21	100.1	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
Jan-22	100.0	38.2	2.0	-256.3	61.8	28.4	33.4	24.5	8.9

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

For rural basket, the weighted contribution of food group in the overall rural CPI inflation increased to 43.2 percent during January 2022 from 37.2 percent in previous month. It was 51.1 percent during corresponding month of last year. The weighted contribution of non-food group decreased to 56.8 percent in January 2022 from 62.8 percent in previous month. Weighted contribution of non-food group was 48.9 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
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
Jan-22	100.0	43.2	2.7	-324.4	56.8	27.7	29.1	25.3	3.8

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

8. Inflation Diffusion Index

Inflation diffusion index (IDI) is the difference (MoM change) between the share of items with increasing prices (i.e. depicting inflation) and the share of items with falling prices (i.e. depicting deflation) in CPI basket for which prices have reported. IDI for urban and rural baskets (CPI, Core and twelve groups) is presented in Table 8.1(a & b) for the last thirteen months.

Table 8.1(a) Inflation Diffusion Index for Urban CPI Basket - based on MoM change													
Groups	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22
General	53.4	59.8	56.2	43.3	42.1	47.2	52.2	51.7	57.6	60.1	70.2	63.2	57.6
Food & Non-Alcoholic Beverages	44.4	47.8	54.4	24.4	28.9	30.0	38.9	40.0	55.6	41.1	42.2	34.4	40.0
Alcoholic Beverages & Tobacco	33.3	66.7	33.3	33.3	66.7	33.3	0.0	0.0	33.3	33.3	33.3	33.3	66.7
Clothing & Footwear	65.0	85.0	70.0	67.5	55.0	47.5	47.5	45.0	50.0	55.0	80.0	85.0	77.5
Housing, Water, Elect, Gas & other Fuels	6.9	31.0	17.2	20.7	-6.9	27.6	58.6	41.4	58.6	72.4	72.4	69.0	13.8
Furnishing & Household Equip. Maintenance etc.	92.9	90.5	92.9	73.8	81.0	71.4	83.3	78.6	83.3	88.1	90.5	88.1	88.1
Health	71.0	90.3	87.1	77.4	61.3	64.5	54.8	74.2	54.8	51.6	64.5	90.3	71.0
Transport	43.8	50.0	28.1	18.8	25.0	31.3	37.5	46.9	40.6	50.0	93.8	53.1	62.5
Communication	40.0	20.0	20.0	40.0	0.0	20.0	60.0	20.0	20.0	20.0	0.0	20.0	40.0
Recreation & Culture	32.0	36.0	28.0	12.0	24.0	64.0	68.0	56.0	48.0	72.0	68.0	24.0	36.0
Education	18.8	6.3	0.0	31.3	0.0	25.0	25.0	25.0	25.0	56.3	81.3	68.8	31.3
Restaurant & Hotels	71.4	71.4	85.7	57.1	85.7	71.4	71.4	57.1	64.3	85.7	85.7	100.0	78.6
Miscellaneous	79.3	75.9	75.9	65.5	79.3	75.9	58.6	69.0	89.7	82.8	96.6	86.2	89.7
NFNE	59.1	63.8	63.0	57.0	51.1	54.9	57.4	56.2	59.1	66.0	80.9	75.3	67.2

Groups	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22
General	39.3	45.5	46.7	35.2	32.0	43.9	44.3	41.0	54.1	66.8	61.9	56.1	57.4
Food & Non-Alcoholic Beverages	29.1	24.1	54.4	15.2	13.9	20.3	29.1	27.8	41.8	49.4	29.1	21.5	44.3
Alcoholic Beverages & Tobacco	40.0	40.0	-20.0	40.0	60.0	60.0	-20.0	0.0	40.0	80.0	40.0	80.0	60.0
Clothing & Footwear	59.3	59.3	81.5	55.6	74.1	44.4	55.6	25.9	74.1	81.5	96.3	96.3	70.4
Housing, Water, Elect, Gas & other Fuels	30.4	56.5	-17.4	17.4	-13.0	39.1	73.9	60.9	65.2	91.3	87.0	73.9	17.4
Furnishing & Household Equip. Maintenance etc.	46.2	88.5	88.5	61.5	61.5	76.9	80.8	61.5	57.7	84.6	88.5	96.2	92.3
Health	57.1	78.6	57.1	64.3	42.9	78.6	14.3	64.3	42.9	57.1	71.4	78.6	64.3
Transport	31.3	50.0	31.3	18.8	37.5	68.8	62.5	43.8	62.5	68.8	81.3	43.8	62.5
Communication	0.0	0.0	20.0	20.0	0.0	20.0	40.0	20.0	0.0	20.0	0.0	20.0	20.0
Recreation & Culture	23.1	23.1	23.1	30.8	23.1	38.5	30.8	53.8	53.8	61.5	53.8	15.4	38.5
Education	20.0	20.0	0.0	80.0	0.0	60.0	80.0	60.0	0.0	20.0	0.0	20.0	60.0
Restaurant & Hotels	42.9	42.9	21.4	42.9	57.1	28.6	28.6	28.6	64.3	78.6	85.7	85.7	78.6
Miscellaneous	76.5	52.9	64.7	58.8	47.1	70.6	41.2	58.8	88.2	88.2	88.2	82.4	94.1
NFNE	47.8	54.4	53.7	55.9	46.3	59.6	53.7	47.8	57.4	71.3	75.0	72.1	67.6

9. Domestic Commodity Prices

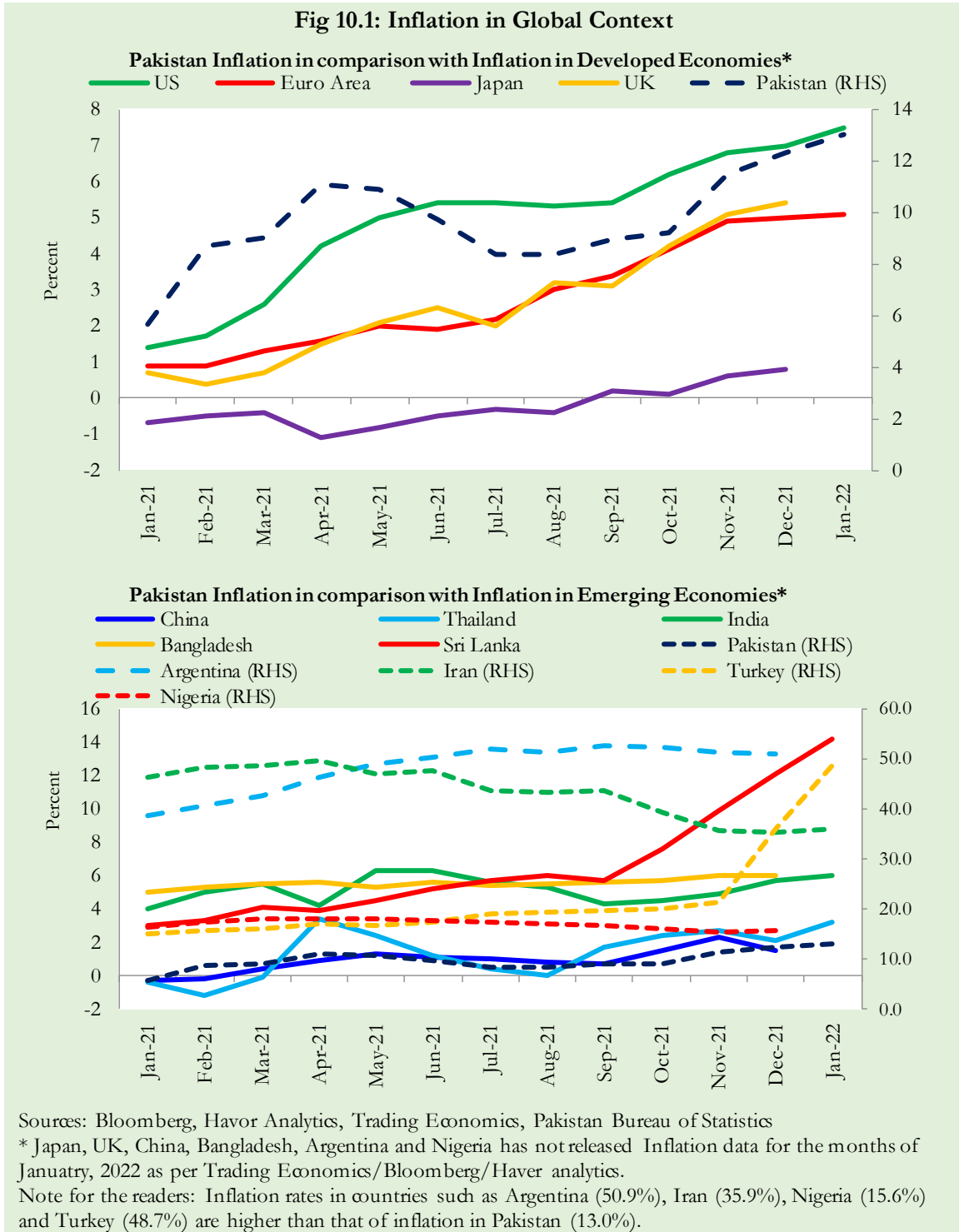
Inflation in domestic food commodities (YoY and MoM in percent) for selected essential food items covering both urban and rural CPI baskets is given in table 9.1.

S. No	Item	Unit	Urban CPI		Rural CPI	
			YoY	MoM	YoY	MoM
1	Wheat	10 Kg	19.2	8.2	24.4	5.9
2	Wheat Flour Bag	20 Kg	2.9	0.6	11.2	3.3
3	Rice Basmati Broken (Superior/Average Quality) *	1 Kg	1.4	0.1	12.3	0.3
4	Beef with Bone (Average Quality)	1 Kg	9.6	0.0	9.7	0.1
5	Mutton (Average Quality)	1 Kg	10.4	0.4	11.1	0.9
6	Chicken Farm Broiler (Live)	1 Kg	1.8	-28.5	2.3	-26.5
7	Milk Fresh (Un-Boiled)	1 Liter	14.2	2.6	7.7	0.1
8	Eggs Farm	Dozen	21.7	-15.4	32.9	-9.3
9	Vegetable Ghee Dalda/Habib Or Other Superior Quality 1 Kg Pouch	Each	23.4	8.0	16.8	6.7
10	Pulse Masoor (Washed)	1 Kg	7.3	0.3	12.5	-0.4
11	Pulse Moong (Washed)	1 Kg	4.9	2.0	4.2	2.7
12	Pulse Mash (Washed)	1 Kg	10.0	1.2	14.4	1.8
13	Pulse Gram	1 Kg	-11.9	-0.1	-8.8	1.2
14	Potatoes	1 Kg	-5.2	-34.3	-8.4	-36.5
15	Onions	1 Kg	-30.4	-24.9	-32.6	-26.0
16	Tomatoes	1 Kg	-32.2	-30.0	-36.2	-32.8
17	Sugar Refined	1 Kg	25.9	14.8	23.5	14.3
18	Garlic (Lehsun)	1 Kg	-10.3	-0.2	-19.9	4.3
19	Ginger (Adrak)	500 Gm	14.8	-54.8	30.9	-46.7
20	Tea Lipton Yellow Label 190 Gm Packet	Each	0.1	0.0	0.2	0.0

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

10. Inflation in Global Context

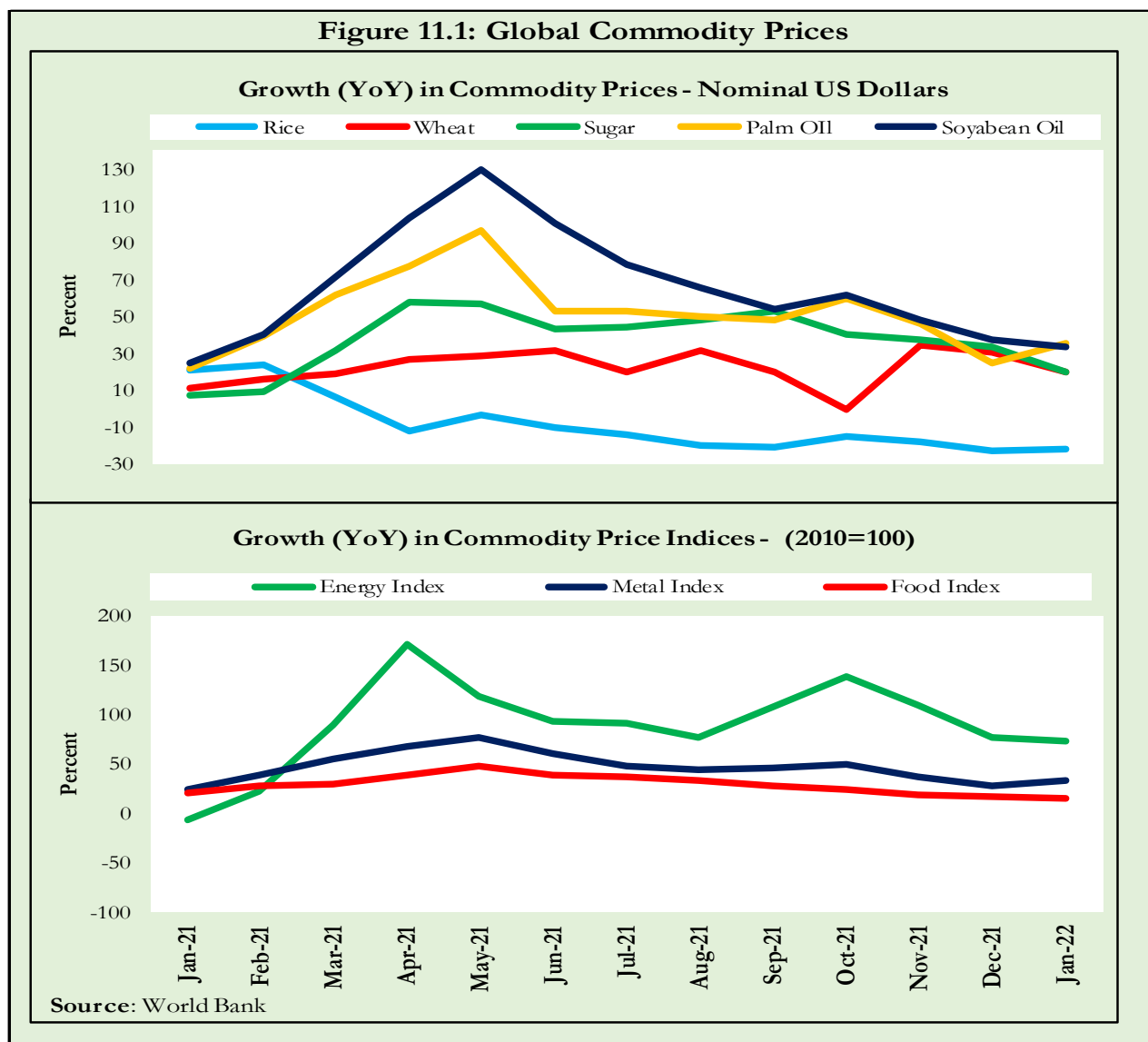
In global context, Pakistan’s inflation in comparison with inflation in selected developed and emerging economies is given in figure 10.1.



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	Jan-21		Dec-21		Jan-22	
	YoY	MoM	YoY	MoM	YoY	MoM
Food	20.7	7.1	17.4	1.2	15.3	5.2
Metals	23.9	1.7	27.7	0.0	33.6	6.4
Energy	-6.9	10.1	77.1	-2.9	73.6	8.0
Agricultural	15.6	5.1	15.3	0.8	14.4	4.2
Cotton	10.3	7.7	48.2	-5.1	51.4	10.0



12. Seasonal Adjustment in CPI

Seasonal adjustment is the process of estimating and removing the seasonal effects from a time series after decomposing it into seasonal, trend, cycle and irregular components. The purpose is to identify the different components of the time series and thus provide a better understanding of its underlying behavior. Seasonally adjusted changes are usually preferred for analyzing general price trends in the economy because these eliminate the effect of changes that normally occur at the same time and in about the same magnitude every year. Various statistical methods can be used to decompose a time series into its constituent components. The State Bank of Pakistan uses X-12- ARIMA Seasonal Adjustment Method for this purpose.

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

Figure 12.1 reveals that seasonality in all CPI series has been increasing over the period. Average seasonal factors reveal strong seasonality during the calendar year. There is an upward seasonality during the months from July to December and downward seasonality in the remaining months of the year. Upward and downward seasonality is above and below the trend line respectively. It is important to note that seasonal factors are estimate on historical data and that the future data may not necessarily show the same seasonal pattern.

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

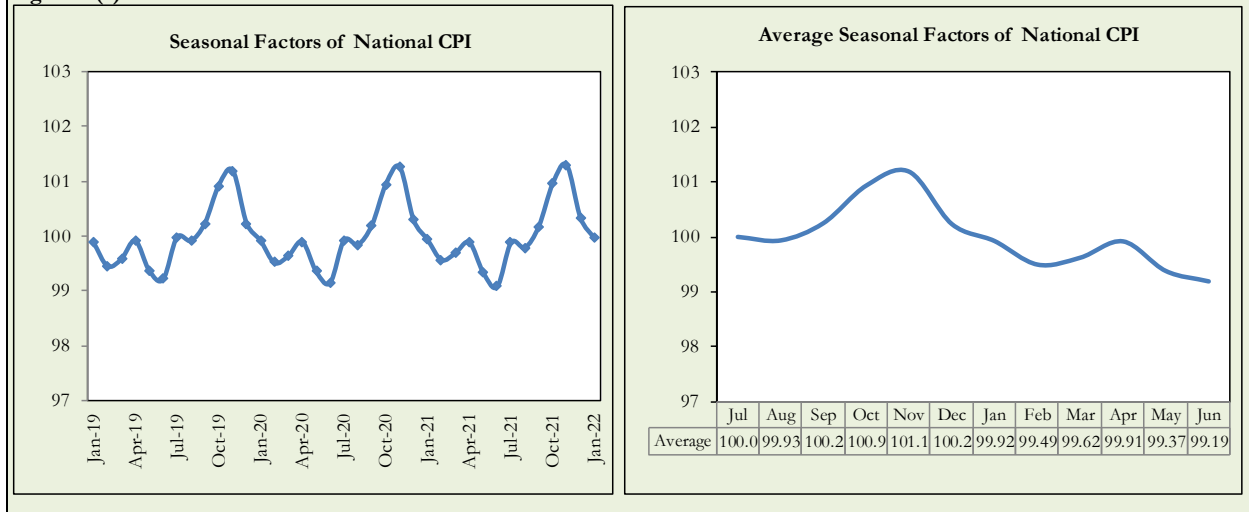


Fig. 12.1 (b): Seasonal Factor of Urban CPI

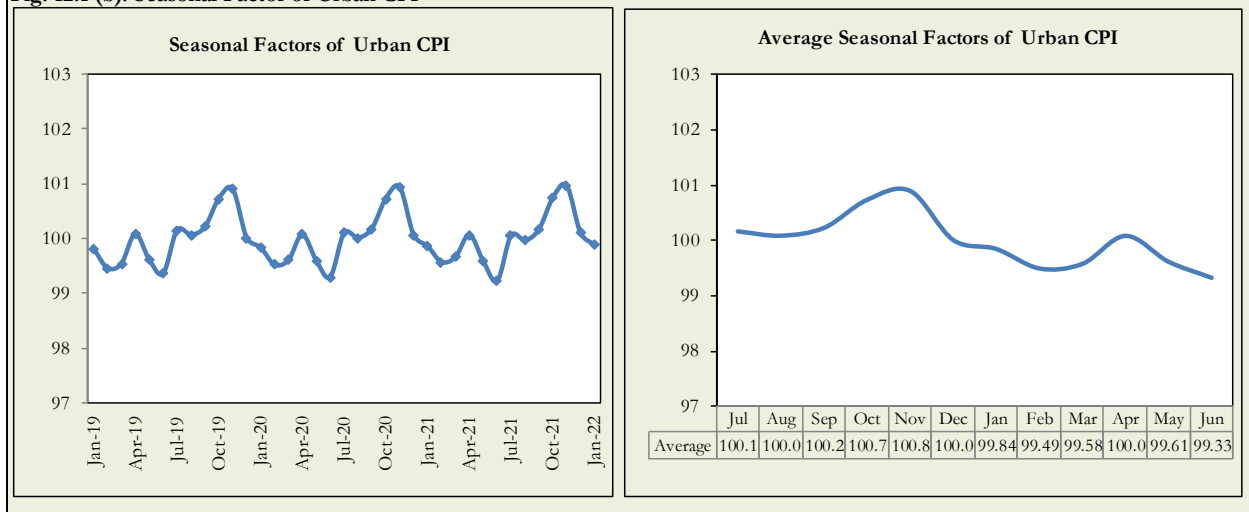
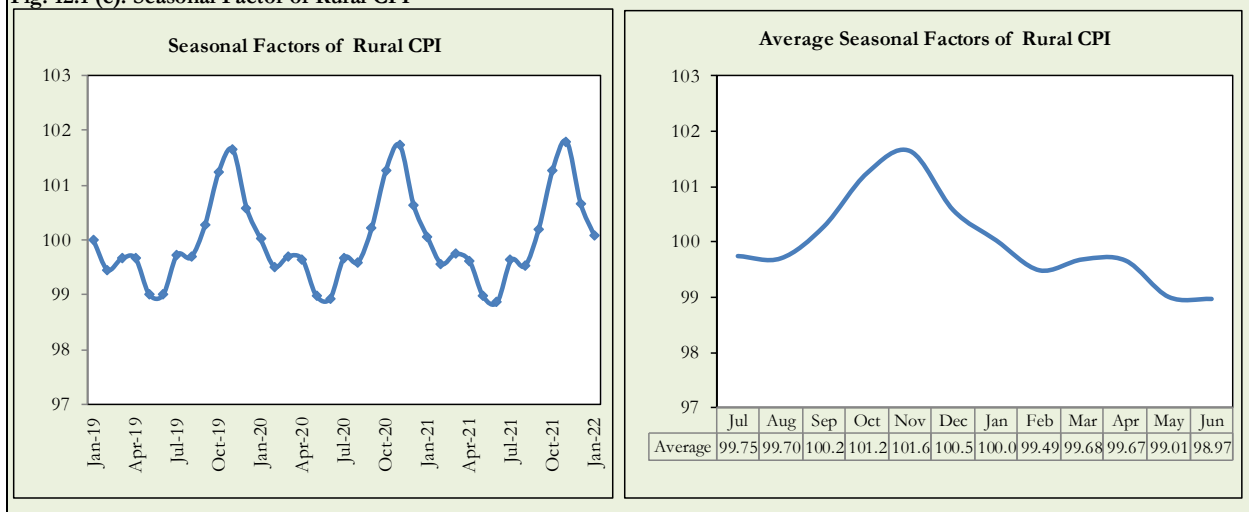


Fig. 12.1 (c): Seasonal Factor of Rural CPI



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

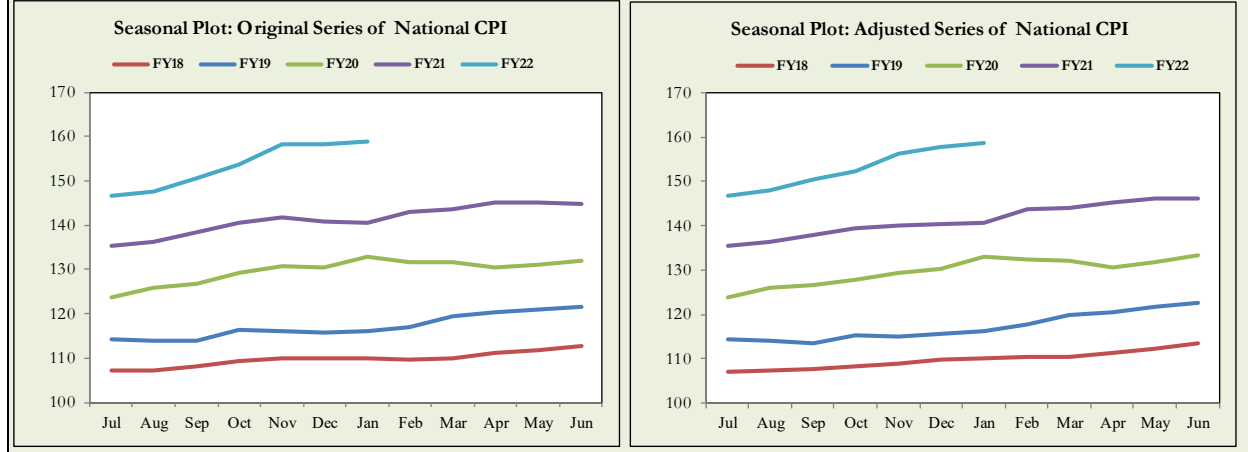


Fig. 12.2 (b): Seasonal Plot of Urban CPI

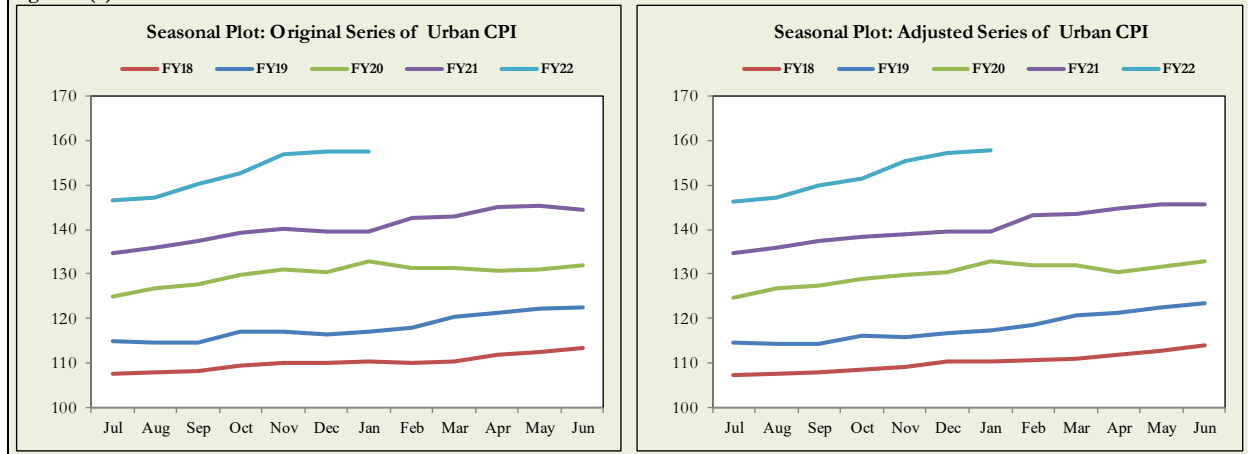
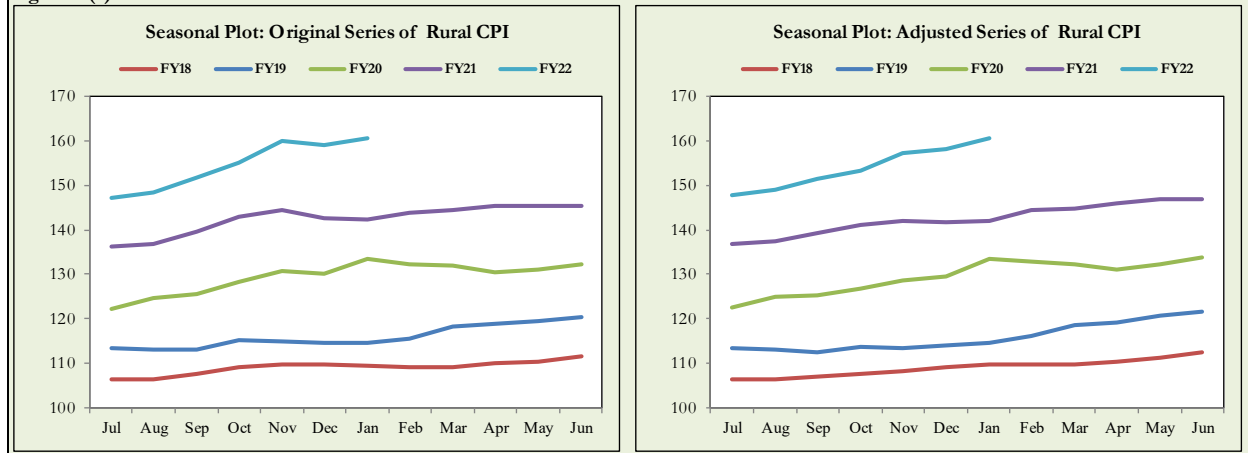


Fig. 12.2 (c): Seasonal Plot of Rural CPI



Seasonally adjusted Index of National CPI for January 2022 stood at 158.84 against 158.78 in original series showing an increase of 0.06 because of seasonal adjustment.

Seasonally adjusted Index of Urban CPI for January 2022 stood at 157.74 against 157.56 in original series showing an increase of 0.18 on account of seasonal adjustment.

Seasonally adjusted Index of Rural CPI for January 2022 stood at 160.49 against 160.62 in original series showing a decrease of 0.13 on account of seasonal adjustment.

Month-on-month change of seasonally adjusted National CPI series stood at 0.76% reflecting a decrease during January 2022 over previous month and an increase of 0.39% in original series.

Month-on-month change of seasonally adjusted Urban CPI series stood at 0.28% reflecting a decrease during January 2022 over previous month and an increase of 0.06% in original series.

Month-on-month change of seasonally adjusted Rural CPI series stood at 1.49% reflecting an increase during January 2022 over previous month and an increase of 0.89% in original series.

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

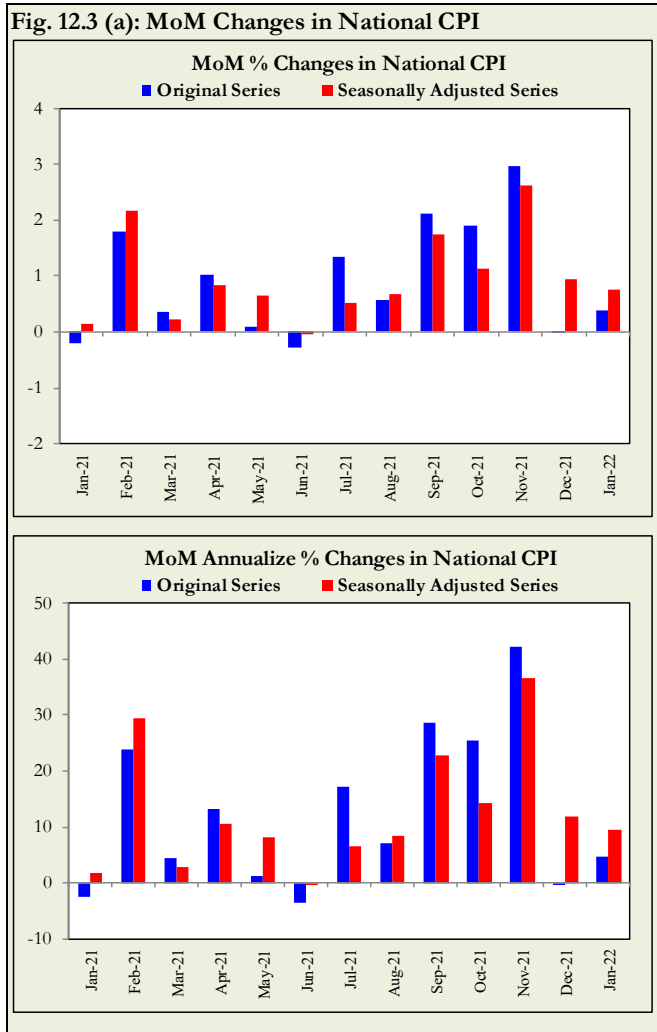


Fig. 12.3 (b): MoM % Changes in Urban CPI

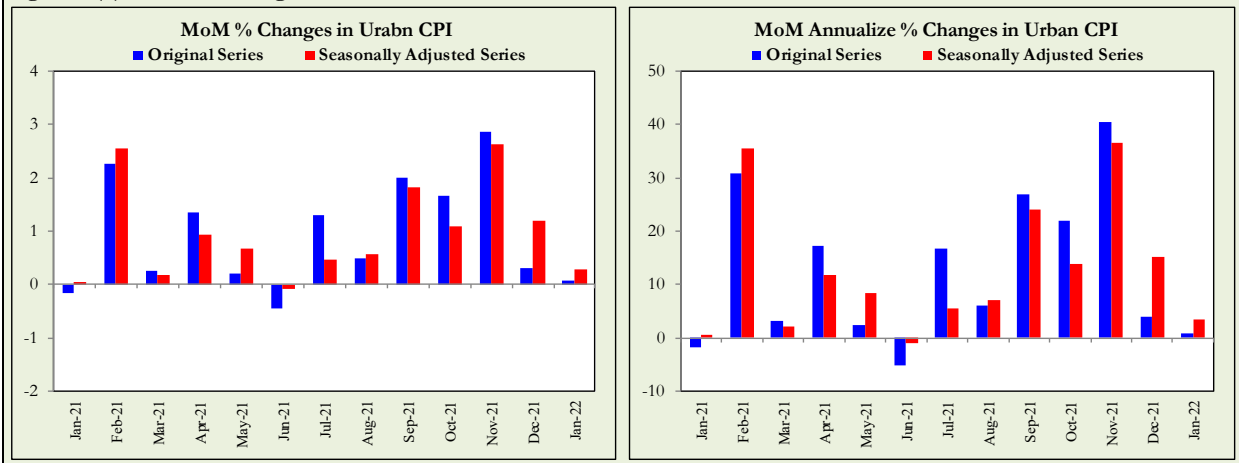
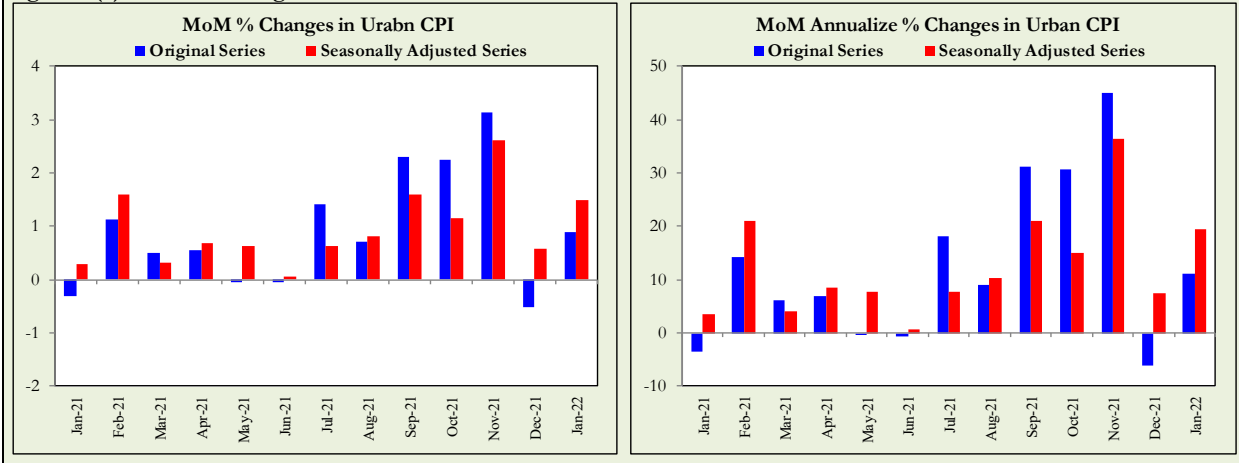


Fig. 12.3 (c): MoM % Changes in Rural CPI



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

Period	CPI							WPI	SPI**	Core Inflation			
	General			Food		Non-Food				NFNE*		Trimmed	
	National	Urban	Rural	Urban	Rural	Urban	Rural			Urban	Rural	Urban	Rural
Year-on-Year													
Jan-21	5.7	5.0	6.6	7.3	7.2	3.7	6.1	6.4	6.4	5.4	7.8	5.7	8.1
Feb-21	8.7	8.6	8.8	10.3	9.1	7.6	8.6	9.5	10.1	6.4	7.7	7.9	9.2
Mar-21	9.1	8.7	9.5	11.5	11.1	7.1	8.1	14.6	14.3	6.3	7.3	8.1	9.4
Apr-21	11.1	11.0	11.3	15.7	14.1	8.2	8.9	16.6	17.8	7.0	7.7	9.8	10.6
May-21	10.9	10.8	10.9	15.3	12.8	8.3	9.2	19.4	16.9	6.8	7.6	10.0	10.3
Jun-21	9.7	9.6	9.7	11.0	9.8	8.8	9.7	20.9	15.4	6.7	7.3	9.4	9.8
Jul-21	8.4	8.7	8.0	9.4	7.3	8.2	8.7	17.3	12.6	6.9	6.9	9.0	8.4
Aug-21	8.4	8.3	8.4	10.2	9.1	7.2	7.7	17.1	12.7	6.3	6.2	7.8	7.8
Sep-21	9.0	9.1	8.8	10.8	9.1	8.1	8.5	19.6	13.8	6.4	6.2	8.7	8.2
Oct-21	9.2	9.6	8.7	9.4	7.2	9.7	10.0	21.2	14.0	6.7	6.7	8.7	8.2
Nov-21	11.5	12.0	10.9	11.9	8.6	12.0	13.0	27.0	17.4	7.6	8.2	9.8	9.5
Dec-21	12.3	12.7	11.6	11.7	9.0	13.4	14.0	26.2	19.3	8.3	8.9	10.8	10.3
Jan-22	13.0	13.0	12.9	13.3	11.8	12.8	13.9	24.0	19.5	8.2	9.0	10.6	10.9
Month-on-Month													
Jan-21	-0.2	-0.2	-0.3	-2.1	-2.2	1.1	1.5	2.5	-0.4	0.9	1.1	1.0	1.2
Feb-21	1.8	2.3	1.1	1.3	0.2	2.8	2.0	2.2	2.5	1.1	0.5	1.0	0.5
Mar-21	0.4	0.3	0.5	1.7	1.5	-0.6	-0.4	3.7	2.7	0.2	0.3	0.4	0.3
Apr-21	1.0	1.3	0.6	2.7	0.9	0.5	0.3	-0.4	0.4	0.9	0.7	0.6	0.2
May-21	0.1	0.2	0.0	1.1	0.2	-0.3	-0.3	0.3	0.9	0.2	0.3	0.2	0.4
Jun-21	-0.3	-0.4	-0.1	-1.9	-0.8	0.5	0.6	0.9	-0.8	0.3	0.4	0.3	0.6
Jul-21	1.3	1.3	1.4	1.5	1.6	1.1	1.2	2.3	1.4	0.8	0.7	0.8	0.8
Aug-21	0.6	0.5	0.7	0.5	0.8	0.5	0.6	1.2	0.9	0.2	0.2	0.4	0.6
Sep-21	2.1	2.0	2.3	3.6	3.7	1.1	1.0	3.2	2.9	0.4	0.5	0.9	1.2
Oct-21	1.9	1.7	2.2	1.5	2.6	1.8	1.9	4.2	3.1	0.9	1.0	1.1	1.6
Nov-21	3.0	2.9	3.1	3.9	3.3	2.2	3.0	3.8	4.1	1.1	1.8	1.7	2.2
Dec-21	0.0	0.3	-0.5	-2.3	-3.1	2.0	1.9	-0.2	0.3	1.1	1.1	1.1	1.0
Jan-22	0.4	0.1	0.9	-0.8	0.4	0.6	1.4	0.6	-0.2	0.8	1.2	0.5	1.1

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

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

Groups	Weights	MoM change			YoY change		
		Jan-21	Dec-21	Jan-22	Jan-21	Dec-21	Jan-22
Food & Non-Alcoholic	34.6	-2.7	-3.4	-0.5	6.7	10.3	12.8
Alcoholic Beverages & Tobacco	1.0	0.1	0.3	0.1	5.8	2.0	2.0
Clothing & Footwear	8.6	0.8	2.0	0.8	9.5	11.2	11.2
Housing, Water, Elec, Gas & other Fuels	23.6	1.9	2.8	1.0	3.4	16.6	15.5
Furnishing & Household Equip. Maintenance etc	4.1	0.4	2.3	1.1	7.6	12.3	13.0
Health	2.8	0.9	1.6	0.7	8.5	9.4	9.2
Transport	5.9	1.9	1.3	1.0	-2.6	24.1	23.1
Communication	2.2	0.1	0.0	0.1	0.5	2.5	2.6
Recreation & Culture	1.6	0.3	0.6	0.4	4.6	7.7	7.8
Education	3.8	0.1	0.4	0.4	1.3	2.8	3.2
Restaurants & Hotels	6.9	0.7	2.1	1.0	8.9	12.6	13.0
Miscellaneous	4.9	1.0	0.7	0.8	11.5	10.6	10.3
Overall National CPI	100.0	-0.2	0.0	0.4	5.7	12.3	13.0

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

Groups	Weights	MoM change			YoY change		
		Jan-21	Dec-21	Jan-22	Jan-	Dec-21	Jan-22
I. Food Group	36.8	-2.1	-2.3	-0.8	7.3	11.7	13.3
Food & Non-Alcoholic Beverages	30.4	-2.7	-3.0	-1.1	6.7	11.7	13.6
Alcoholic Beverages & Tobacco	0.9	0.0	0.1	0.0	6.2	2.1	2.0
Restaurant & Hotels (Food Component)	5.5	0.9	2.1	0.8	10.8	13.6	13.4
II. Non-Food Group	63.2	1.1	2.0	0.6	3.7	13.4	12.8
Clothing & Footwear	8.0	0.5	2.9	0.7	8.5	12.2	12.4
Housing, Water, Elec, Gas & other Fuels	27.0	1.6	2.6	0.6	2.9	15.4	14.2
Furnishing & Household Equip. Maintenance etc	4.1	0.5	1.8	0.9	6.4	11.4	11.9
Health	2.3	0.6	1.6	0.5	7.4	10.1	10.0
Transport	6.1	1.8	1.3	0.4	-2.8	25.0	23.4
Communication	2.4	0.1	0.0	0.1	0.6	3.3	3.4
Recreation & Culture	1.7	0.1	0.5	0.3	3.3	7.9	8.1
Education	4.9	0.1	0.4	0.5	1.1	2.6	3.0
Restaurants & Hotels (Non-food Component)	1.9	0.0	3.1	0.2	2.8	12.2	12.4
Miscellaneous	4.8	1.0	0.6	0.7	10.4	10.4	10.1
Overall Urban CPI	100.0	-0.2	0.3	0.1	5.0	12.7	13.0

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

Groups	Weights	MoM Change			YoY Change		
		Jan-21	Dec-21	Jan-22	Jan-21	Dec-21	Jan-22
I. Food Group	45.9	-2.2	-3.1	0.4	7.2	9.0	11.8
Food and Non-Alcoholic Beverages	40.9	-2.6	-3.7	0.2	6.6	8.9	12.0
Alcoholic Beverages, Tobacco	1.3	0.2	0.5	0.3	5.3	1.9	2.0
Restaurants and Hotels (Food Component)	3.8	0.9	2.2	1.7	14.4	12.1	13.0
II. Non-Food Group	54.1	1.5	1.9	1.4	6.1	14.0	13.9
Clothing and Footwear	9.5	1.2	0.9	0.8	10.7	10.1	9.7
Housing, Water, Elec., Gas and Other Fuels	18.5	2.5	3.2	1.9	4.5	19.2	18.5
Furnishing and Household Equip. Maintenance	4.1	0.4	3.1	1.3	9.5	13.7	14.8
Health	3.5	1.3	1.7	0.9	9.6	8.7	8.3
Transport	5.6	2.0	1.3	2.0	-2.2	22.5	22.5
Communication	2.0	0.0	0.0	0.2	0.4	0.9	1.1
Recreation and Culture	1.4	0.7	0.6	0.7	7.0	7.3	7.4
Education	2.1	0.1	0.3	0.2	2.1	3.5	3.7
Restaurants and Hotels (Non-Food Component)	2.4	0.0	0.5	1.4	0.8	10.4	11.9
Miscellaneous	5.0	1.0	0.9	1.0	13.2	10.7	10.8
Rural CPI	100.0	-0.3	-0.5	0.9	6.6	11.6	12.9

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

Items/Contributors	Weights	YoY Change		Weighted Contribution (%)	
		Jan-21	Jan-22		
<u>A. Ranked by Weighted Contribution</u>					
1	Electricity Charges	4.56	-4.38	56.20	16.88
2	House Rent	19.26	4.77	6.13	8.86
3	Motor Fuel	2.91	-6.62	36.22	8.78
4	Milk Fresh	7.11	14.21	11.09	5.99
5	Readymade Food	5.52	10.80	13.43	5.71
6	Cooking Oil	1.10	13.69	54.33	5.00
7	Vegetable Ghee	1.03	21.70	47.40	4.41
8	Meat	2.04	9.96	22.38	3.93
9	Wheat Flour	3.01	7.23	15.81	3.59
10	Footwear	1.48	7.28	25.47	2.74
Total		48.02			65.89
<u>B. Ranked by Percentage Change</u>					
1	Electricity Charges	4.56	-4.38	56.20	16.88
2	Cooking Oil	1.10	13.69	54.33	5.00
3	Liquefied Hydrocarbons	0.51	-12.05	53.35	2.44
4	Vegetable Ghee	1.03	21.70	47.40	4.41
5	Mustard Oil	0.01	23.25	46.68	0.05
6	Pulse Masoor	0.16	7.29	41.30	0.38
7	Motor Fuel	2.91	-6.62	36.22	8.78
8	Fresh Fruits	1.44	-6.20	28.35	2.44
9	Footwear	1.48	7.28	25.47	2.74
10	Gram Whole	0.09	-3.66	24.70	0.15
Total		13.29			43.27
<u>C. Ranked by Weights</u>					
1	House Rent	19.26	4.77	6.13	8.86
2	Milk Fresh	7.11	14.21	11.09	5.99
3	Readymade Food	5.52	10.80	13.43	5.71
4	Education	4.88	1.06	3.04	1.20
5	Electricity Charges	4.56	-4.38	56.20	16.88
6	Wheat Flour	3.01	7.23	15.81	3.59
7	Appliances/Articles/Products for Personal	2.98	7.51	11.61	2.59
8	Motor Fuel	2.91	-6.62	36.22	8.78
9	Cotton Cloth	2.22	12.59	10.06	1.76
10	Meat	2.04	9.96	22.38	3.93
Total		54.49			59.29

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 13.0 percent in January 2022.

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

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Dec-21	Jan-22		
A. Ranked by Weighted Contribution					
1	House Rent	19.26	0.00	1.50	410.15
2	Motor Fuel	2.91	-0.13	1.75	102.97
3	Fresh Fruits	1.44	4.81	4.11	79.00
4	Meat	2.04	0.62	1.78	67.97
5	Readymade Food	5.52	2.09	0.76	66.28
6	Woolen Readymade Garments	0.43	4.08	6.67	42.94
7	Education	4.88	0.45	0.45	33.19
8	Washing Soap/Detergents/Match	1.41	2.79	1.46	32.46
9	Personal Effects N.E.C.	0.94	0.29	1.60	31.93
10	Wheat	0.61	-0.20	2.68	29.38
Total		39.44			896.27
B. Ranked by Percentage Change					
1	Woolen Readymade Garments	0.43	4.08	6.67	42.94
2	Pulse Masoor	0.16	8.64	6.13	13.77
3	Solid Fuel	0.42	2.40	5.16	27.97
4	Gram Whole	0.09	4.71	4.79	6.46
5	Fresh Fruits	1.44	4.81	4.11	79.00
6	Besan	0.08	3.17	3.82	4.16
7	Pulse Gram	0.17	5.27	3.44	7.42
8	Pulse Mash	0.12	6.58	3.37	4.46
9	Honey	0.10	2.62	3.05	4.70
10	Wheat	0.61	-0.20	2.68	29.38
Total		3.62			220.26
C. Ranked by Weights					
1	House Rent	19.26	0.00	1.50	410.15
2	Milk Fresh	7.11	2.83	-0.55	-60.41
3	Readymade Food	5.52	2.09	0.76	66.28
4	Education	4.88	0.45	0.45	33.19
5	Electricity Charges	4.56	14.21	-2.52	-219.61
6	Wheat Flour	3.01	-0.04	-1.28	-61.95
7	Appliances/Articles/Products for	2.98	0.59	0.46	20.57
8	Motor Fuel	2.91	-0.13	1.75	102.97
9	Cotton Cloth	2.22	1.25	0.54	18.89
10	Meat	2.04	0.62	1.78	67.97
Total		54.49			378.05

Note: Weighted contribution is estimated by multiplying the weights by the price change of an item; this is then reported as a share in MoM change in Urban CPI, which is 0.1 percent in January 2022.

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

Items/ Contributors	Weights	YoY Change		Weighted Contribution (%)	
		Jan-21	Jan-22		
A. Ranked by Weighted Contribution					
1	Electricity Charges	4.56	-4.38	56.20	16.88
2	House Rent	19.26	4.77	6.13	8.86
3	Motor Fuel	2.91	-6.62	36.22	8.78
4	Milk Fresh	7.11	14.21	11.09	5.99
5	Readymade Food	5.52	10.80	13.43	5.71
6	Cooking Oil	1.10	13.69	54.33	5.00
7	Vegetable Ghee	1.03	21.70	47.40	4.41
8	Meat	2.04	9.96	22.38	3.93
9	Wheat Flour	3.01	7.23	15.81	3.59
10	Footwear	1.48	7.28	25.47	2.74
11	Appliances/Articles/Products	2.98	7.51	11.61	2.59
12	Liquefied Hydrocarbons	0.51	-12.05	53.35	2.44
13	Fresh Fruits	1.44	-6.20	28.35	2.44
14	Washing Soap/Detergents/Match	1.41	6.69	17.95	1.90
15	Cotton Cloth	2.22	12.59	10.06	1.76
Total		56.58			77.02
Bottom 15 Contributors					
1	Tomatoes	0.35	-32.16	-41.95	-1.36
2	Condiments And Spices	1.33	27.22	-2.58	-0.38
3	Pulse Moong	0.17	4.87	-24.69	-0.34
4	Onions	0.59	-30.41	-4.39	-0.14
5	Sugar	1.11	25.95	-0.66	-0.06
6	Potatoes	0.45	-4.59	-0.77	-0.03
7	Newspapers	0.07	0.00	0.00	0.00
8	Gas Charges	1.08	0.00	0.00	0.00
9	Therapeutic Appliances	0.01	7.62	4.32	0.00
10	Cigarettes	0.72	4.68	0.05	0.00
11	Dental Services	0.02	7.37	4.90	0.01
12	Major Tools & Equipments	0.01	13.04	11.01	0.01
13	Postal Services	0.02	3.28	8.39	0.01
14	Carpets	0.03	4.98	7.58	0.01
15	Dessert Preparation	0.04	7.55	5.78	0.02
Total		6.00			-2.25

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

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Dec-21	Jan-22		
A. Ranked by Weighted Contribution					
1	House Rent	19.26	0.00	1.50	410.15
2	Motor Fuel	2.91	-0.13	1.75	102.97
3	Fresh Fruits	1.44	4.81	4.11	79.00
4	Meat	2.04	0.62	1.78	67.97
5	Readymade Food	5.52	2.09	0.76	66.28
6	Woolen Readymade Garments	0.43	4.08	6.67	42.94
7	Education	4.88	0.45	0.45	33.19
8	Washing Soap/Detergents/Match	1.41	2.79	1.46	32.46
9	Personal Effects N.E.C.	0.94	0.29	1.60	31.93
10	Wheat	0.61	-0.20	2.68	29.38
11	Solid Fuel	0.42	2.40	5.16	27.97
12	Rice	1.18	0.90	1.28	23.02
13	Appliances/Articles/Products for	2.98	0.59	0.46	20.57
14	Cotton Cloth	2.22	1.25	0.54	18.89
15	Liquefied Hydrocarbons	0.51	-4.19	1.29	16.20
Total		46.75			1,002.92
Bottom 15 Contributors					
1	Tomatoes	0.35	-49.74	-42.88	-256.48
2	Electricity Charges	4.56	14.21	-2.52	-219.61
3	Condiments And Spices	1.33	0.22	-7.50	-208.50
4	Potatoes	0.45	-19.76	-13.32	-117.71
5	Transport Services	1.75	5.46	-2.68	-67.43
6	Wheat Flour	3.01	-0.04	-1.28	-61.95
7	Milk Fresh	7.11	2.83	-0.55	-60.41
8	Chicken	1.36	-18.34	-2.24	-43.35
9	Fresh Vegetables	1.53	-25.73	-1.65	-37.35
10	Eggs	0.51	-3.03	-1.13	-11.84
11	Milk Products	0.64	3.91	-0.95	-9.61
12	Onions	0.59	-17.80	-0.60	-3.32
13	Construction Input Items	0.38	1.07	-0.08	-0.49
14	Gur	0.04	-1.28	-0.06	-0.04
15	Newspapers	0.07	0.00	0.00	0.00
Total		23.68			-1,098.09

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

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Dec-21	Jan-22		
A. Ranked by Weighted Contribution					
1	Fresh fruits	1.44	4.81	4.11	79.00
2	Meat	2.04	0.62	1.78	67.97
3	Readymade food	5.52	2.09	0.76	66.28
4	Wheat	0.61	-0.20	2.68	29.38
5	Rice	1.18	0.90	1.28	23.02
6	Pulse masoor	0.16	8.64	6.13	13.77
7	Sugar	1.11	-9.22	0.64	10.46
8	Sweetmeat	0.35	3.27	1.36	8.70
9	Pulse gram	0.17	5.27	3.44	7.42
10	Gram whole	0.09	4.71	4.79	6.46
11	Bakery and confectionary	0.48	2.96	0.81	6.25
12	Honey	0.10	2.62	3.05	4.70
13	Pulse mash	0.12	6.58	3.37	4.46
14	Besan	0.08	3.17	3.82	4.16
15	Nimco	0.12	1.79	1.74	3.49
Bottom 15 Contributors					
1	Tomatoes	0.35	-49.74	-42.88	-256.48
2	Condiments and Spices	1.33	0.22	-7.50	-208.50
3	Potatoes	0.45	-19.76	-13.32	-117.71
4	Wheat flour	3.01	-0.04	-1.28	-61.95
5	Milk fresh	7.11	2.83	-0.55	-60.41
6	Chicken	1.36	-18.34	-2.24	-43.35
7	Fresh vegetables	1.53	-25.73	-1.65	-37.35
8	Eggs	0.51	-3.03	-1.13	-11.84
9	Milk products	0.64	3.91	-0.95	-9.61
10	Onions	0.59	-17.80	-0.60	-3.32
11	Gur	0.04	-1.28	-0.06	-0.04
12	Cigarettes	0.72	0.00	0.00	0.00
13	Ice cream	0.10	0.05	0.00	0.00
14	Beverages	0.89	0.04	0.01	0.09
15	Pan prepared	0.14	0.54	0.03	0.10
Total		18.77			-810.38

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

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Dec-21	Jan-22		
A. Ranked by Weighted Contribution					
1	House rent	19.26	0.00	1.50	410.15
2	Motor fuel	2.91	-0.13	1.75	102.97
3	Woolen readymade garments	0.43	4.08	6.67	42.94
4	Education	4.88	0.45	0.45	33.19
5	Washing soap/detergents/match	1.41	2.79	1.46	32.46
6	Personal Effects n.e.c.	0.94	0.29	1.60	31.93
7	Solid Fuel	0.42	2.40	5.16	27.97
8	Appliances/Articles/Products for	2.98	0.59	0.46	20.57
9	Cotton cloth	2.22	1.25	0.54	18.89
10	Liquefied Hydrocarbons	0.51	-4.19	1.29	16.20
11	Household servant	0.77	0.09	1.10	11.70
12	Hosiry	0.41	1.01	1.93	11.60
13	Drugs and medicines	1.07	1.88	0.58	10.20
14	Mechanical services	0.43	0.65	1.31	8.28
15	stationery	0.35	0.52	1.18	5.87
Total		38.99			784.91
Bottom 15 Contributors					
1	Electricity charges	4.56	14.21	-2.52	-219.61
2	Transport services	1.75	5.46	-2.68	-67.43
3	Construction input items	0.38	1.07	-0.08	-0.49
4	Newspapers	0.07	0.00	0.00	0.00
5	Communication Services	1.88	0.00	0.00	0.00
6	Motor vehicle tax	0.05	0.00	0.00	0.00
7	Gas charges	1.08	0.00	0.00	0.00
8	Textbooks	0.67	0.00	0.00	0.00
9	Accommodation Services	0.13	0.42	0.00	0.00
10	Dental services	0.02	0.75	0.03	0.01
11	Carpets	0.03	2.74	0.03	0.01
12	Therapeutic Appliances	0.01	1.21	0.25	0.02
13	Recreation and culture	0.65	1.28	0.01	0.06
14	Major tools & equipments	0.01	5.57	1.37	0.17
15	Postal services	0.02	0.00	0.74	0.23
Total		11.29			-287.03

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

Items/ Contributors	Weights	YoY Change		Weighted Contribution (%)	
		Jan-21	Jan-22		
A. Ranked by Weighted Contribution					
1	Electricity Charges	3.44	-4.38	56.20	12.56
2	Vegetable Ghee	2.38	17.27	49.27	11.17
3	Milk Fresh	10.38	7.72	10.22	7.61
4	Motor Fuels	2.49	-6.81	34.86	7.07
5	Solid Fuel	4.48	11.42	14.02	4.83
6	Wheat Flour	3.43	13.67	15.37	4.17
7	Readymade Food	3.80	14.40	13.01	4.08
8	House Rent	8.61	5.83	5.92	3.80
9	Liquefied Hydrocarbons	1.00	-10.45	42.05	3.26
10	Meat	1.71	10.14	21.96	3.21
Total		41.72			61.76
B. Ranked by Percentage Change					
1	Electricity Charges	3.44	-4.38	56.20	12.56
2	Cooking Oil	0.60	15.52	50.33	2.83
3	Mustard Oil	0.01	17.70	49.73	0.05
4	Vegetable Ghee	2.38	17.27	49.27	11.17
5	Liquefied Hydrocarbons	1.00	-10.45	42.05	3.26
6	Pulse Masoor	0.21	12.47	36.22	0.46
7	Motor Fuels	2.49	-6.81	34.86	7.07
8	Fresh Fruits	1.45	-6.77	29.35	2.49
9	Gram Whole	0.11	-5.98	29.34	0.21
10	Meat	1.71	10.14	21.96	3.21
Total		13.40			43.31
C. Ranked by Weights					
1	Milk Fresh	10.38	7.72	10.22	7.61
2	House Rent	8.61	5.83	5.92	3.80
3	Solid Fuel	4.48	11.42	14.02	4.83
4	Readymade Food	3.80	14.40	13.01	4.08
5	Wheat	3.47	24.36	4.80	1.57
6	Electricity Charges	3.44	-4.38	56.20	12.56
7	Wheat Flour	3.43	13.67	15.37	4.17
8	Cotton Cloth	2.84	12.55	8.56	2.13
9	Motor Fuels	2.49	-6.81	34.86	7.07
10	Vegetable Ghee	2.38	17.27	49.27	11.17
Total		45.32			58.99

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 12.9 percent in January 2022.

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

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Dec-21	Jan-22		
A. Ranked by Weighted Contribution					
1	Solid Fuel	4.48	2.54	6.65	31.97
2	House Rent	8.61	0.00	2.12	18.38
3	Fresh Fruits	1.45	7.27	6.66	8.92
4	Readymade Food	3.80	2.21	1.73	7.87
5	Fresh Vegetables	2.09	-28.66	3.64	7.78
6	Motor Fuels	2.49	-0.67	2.03	7.09
7	Vegetable Ghee	2.38	4.80	1.41	6.15
8	Transport Services	1.80	6.42	3.35	6.03
9	Wheat	3.47	1.10	1.33	5.89
10	Footwear	1.92	0.58	2.72	5.25
Total		32.49			105.33
B. Ranked by Percentage Change					
1	Pulse Masoor	0.21	7.17	6.97	1.46
2	Fresh Fruits	1.45	7.27	6.66	8.92
3	Solid Fuel	4.48	2.54	6.65	31.97
4	Pulse Gram	0.28	1.30	4.55	1.13
5	Gram Whole	0.11	4.74	4.43	0.52
6	Pulse Mash	0.15	4.08	4.09	0.47
7	Fresh Vegetables	2.09	-28.66	3.64	7.78
8	Transport Services	1.80	6.42	3.35	6.03
9	Bakery and Confectionary	0.37	1.34	2.98	1.23
10	Cleaning and Laundering	0.02	1.93	2.90	0.06
Total		10.96			59.57
C. Ranked by Weights					
1	Milk Fresh	10.38	1.09	0.22	2.36
2	House Rent	8.61	0.00	2.12	18.38
3	Solid Fuel	4.48	2.54	6.65	31.97
4	Readymade Food	3.80	2.21	1.73	7.87
5	Wheat	3.47	1.10	1.33	5.89
6	Electricity Charges	3.44	14.21	-2.52	-11.77
7	Wheat Flour	3.43	-0.35	0.78	3.16
8	Cotton Cloth	2.84	0.58	0.00	0.00
9	Motor Fuels	2.49	-0.67	2.03	7.09
10	Vegetable Ghee	2.38	4.80	1.41	6.15
Total		45.32			71.10

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 0.9 percent in January 2022.

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

Items/ Contributors	Weights	YoY Change		Weighted Contribution (%)	
		Jan-21	Jan-22		
A. Ranked by Weighted Contribution					
1	Electricity Charges	3.44	-4.38	56.20	12.56
2	Vegetable Ghee	2.38	17.27	49.27	11.17
3	Milk Fresh	10.38	7.72	10.22	7.61
4	Motor Fuels	2.49	-6.81	34.86	7.07
5	Solid Fuel	4.48	11.42	14.02	4.83
6	Wheat Flour	3.43	13.67	15.37	4.17
7	Readymade Food	3.80	14.40	13.01	4.08
8	House Rent	8.61	5.83	5.92	3.80
9	Liquefied Hydrocarbons	1.00	-10.45	42.05	3.26
10	Meat	1.71	10.14	21.96	3.21
11	Cooking Oil	0.60	15.52	50.33	2.83
12	Fresh Vegetables	2.09	-32.66	18.19	2.62
13	Fresh Fruits	1.45	-6.77	29.35	2.49
14	Washing Soaps, Detergents	1.70	9.24	18.20	2.22
15	Cotton Cloth	2.84	12.55	8.56	2.13
Total		50.40			74.05
Bottom 15 Contributors					
1	Condiments And Spices	1.49	31.35	-14.78	-2.28
2	Tomatoes	0.51	-36.17	-46.20	-2.15
3	Pulse Moong	0.25	4.24	-24.59	-0.52
4	Onions	0.90	-32.59	-7.75	-0.34
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	11.25	0.01
10	Dessert Preparation	0.01	8.95	8.56	0.01
11	Water Supply	0.06	35.99	1.63	0.01
12	Dental Services	0.02	11.27	10.45	0.01
13	Cleaning And Laundering	0.02	14.36	15.44	0.02
14	Major Tools and Equipments	0.03	6.96	12.33	0.03
15	Ice Cream	0.06	8.95	7.88	0.03
Total		3.55			-5.18

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

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Dec-21	Jan-22		
A. Ranked by Weighted Contribution					
1	Solid Fuel	4.48	2.54	6.65	31.97
2	House Rent	8.61	0.00	2.12	18.38
3	Fresh Fruits	1.45	7.27	6.66	8.92
4	Readymade Food	3.80	2.21	1.73	7.87
5	Fresh Vegetables	2.09	-28.66	3.64	7.78
6	Motor Fuels	2.49	-0.67	2.03	7.09
7	Vegetable Ghee	2.38	4.80	1.41	6.15
8	Transport Services	1.80	6.42	3.35	6.03
9	Wheat	3.47	1.10	1.33	5.89
10	Footwear	1.92	0.58	2.72	5.25
11	Meat	1.71	2.20	2.24	5.10
12	Sugar	2.03	-13.25	1.93	4.12
13	Washing Soaps, Detergents	1.70	4.29	1.77	3.28
14	Marriage Hall Charges	2.25	0.54	1.43	3.23
15	Personal Grooming Services	1.54	1.02	1.72	3.20
Total		41.72			124.26
Bottom 15 Contributors					
1	Tomatoes	0.51	-46.56	-47.89	-29.97
2	Potatoes	0.74	-15.75	-12.74	-14.83
3	Electricity Charges	3.44	14.21	-2.52	-11.77
4	Onions	0.90	-19.01	-2.78	-1.51
5	Chicken	1.46	-18.17	-0.47	-0.72
6	Liquefied Hydrocarbons	1.00	-4.36	-0.19	-0.27
7	Gur	0.15	-3.08	-0.25	-0.04
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	Communication Services	1.65	0.00	0.00	0.00
13	Water Supply	0.06	0.00	0.00	0.00
14	Textbooks	0.50	0.00	0.00	0.00
15	Garbage Collection	0.01	2.31	0.00	0.00
Total		10.61			-59.11

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

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Dec-21	Jan-22		
A. Ranked by Weighted Contribution					
1	Fresh fruits	1.45	7.27	6.66	8.92
2	Readymade Food	3.80	2.21	1.73	7.87
3	Fresh Vegetables	2.09	-28.66	3.64	7.78
4	Vegetable ghee	2.38	4.80	1.41	6.15
5	Wheat	3.47	1.10	1.33	5.89
6	Meat	1.71	2.20	2.24	5.10
7	Sugar	2.03	-13.25	1.93	4.12
8	Wheat Flour	3.43	-0.35	0.78	3.16
9	Milk fresh	10.38	1.09	0.22	2.36
10	Eggs	0.57	-0.81	2.69	2.16
11	Rice	1.55	0.29	0.88	1.87
12	Cooking oil	0.60	5.13	1.71	1.85
13	Pulse Masoor	0.21	7.17	6.97	1.46
14	Bakery and Confectionary	0.37	1.34	2.98	1.23
15	Pulse Gram	0.28	1.30	4.55	1.13
Total		34.32			61.05
Bottom 15 Contributors					
1	Tomatoes	0.51	-46.56	-47.89	-29.97
2	Potatoes	0.74	-15.75	-12.74	-14.83
3	Onions	0.90	-19.01	-2.78	-1.51
4	Chicken	1.46	-18.17	-0.47	-0.72
5	Gur	0.15	-3.08	-0.25	-0.04
6	Tea	1.26	0.39	0.00	0.00
7	Dessert Preparation	0.01	0.33	0.83	0.01
8	Beverages	0.55	0.06	0.02	0.01
9	Beans	0.09	3.72	0.21	0.02
10	Ice Cream	0.06	0.00	0.46	0.03
11	Pan Prepared	0.04	3.92	0.51	0.03
12	Mustard oil	0.01	5.01	1.54	0.03
13	Honey	0.03	4.09	1.53	0.05
14	Milk powder	0.11	0.14	0.65	0.06
15	Fish	0.26	-0.16	0.41	0.10
Total		6.19			-46.72

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

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Dec-21	Jan-22		
A. Ranked by Weighted Contribution					
1	Solid Fuel	4.48	2.54	6.65	31.97
2	House Rent	8.61	0.00	2.12	18.38
3	Motor Fuels	2.49	-0.67	2.03	7.09
4	Transport Services	1.80	6.42	3.35	6.03
5	Footwear	1.92	0.58	2.72	5.25
6	Washing Soaps, Detergents and	1.70	4.29	1.77	3.28
7	Marriage Hall Charges	2.25	0.54	1.43	3.23
8	Personal Grooming Services	1.54	1.02	1.72	3.20
9	Drugs and Medicines	1.58	2.86	1.53	2.81
10	Woolen Readymade Garments	0.54	2.48	2.88	1.77
11	Appliances/Articles/Products for	2.27	0.95	0.64	1.45
12	Personal Effects n.e.c.	1.21	0.55	0.70	1.24
13	Household Textiles	0.44	4.00	2.66	1.22
14	Household Equipments	1.28	1.42	0.64	0.93
15	Stationery	0.37	2.29	2.10	0.84
Total		32.47			88.69
Bottom 15 Contributors					
1	Electricity Charges	3.44	14.21	-2.52	-11.77
2	Liquefied Hydrocarbons	1.00	-4.36	-0.19	-0.27
3	Accommodation Services	0.14	0.00	0.00	0.00
4	Newspapers	0.02	0.00	0.00	0.00
5	Communication Services	1.65	0.00	0.00	0.00
6	Postal Services	0.01	0.00	0.00	0.00
7	Motor Vehicle Tax	0.02	0.00	0.00	0.00
8	Water Supply	0.06	0.00	0.00	0.00
9	Textbooks	0.50	0.00	0.00	0.00
10	Garbage Collection	0.01	2.31	0.00	0.00
11	Dental Services	0.02	2.30	0.00	0.00
12	Mechanical Services	0.36	0.25	0.00	0.00
13	Medical Tests	0.40	0.76	0.00	0.00
14	Cotton Cloth	2.84	0.58	0.00	0.00
15	Motor Vehicles	0.73	0.02	0.03	0.02
Total		11.20			-12.02

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	Karela, Tomatoes, Chilies (Green), Pulse Moong (Washed), Ginger (Adrak), Chilies Powder National 200 Gm Packet, Onions, Cardamom Small (Average Quality), Potatoes, Sugar Refined, Kinnu	Cumin Seed (Zeera) White National 50 Gm Packet, Guava (Amrood) (Average Quality), Coriander Seed Powder National 200 Gm Packet, Garlic (Lehsun), Fish Rahu (Medium Size),	Rice Irri-6/9 (Sindh/Punjab), Rice Basmati (Superior Quality), Turmeric Powder National 50 Gm Packet, Custard Powder Rathan 300 Gm Packet, Cold Drink (Pepsi/Coca-	Rusk (Papay) (Average Quality), Curd, Pickle Mitchells/National Bottle (340 Gm-400 Gm), Gram Whole Black (Average Quality), Milk Fresh (Un-Boiled), Besan, Jam-E-Shireen Standard Size (800 MI),
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, Ladies Sponge Chappal Bata, Gents Shoes Servis,	Dopatta Georgette (Average Quality), Women Shalwar Kameez (Average Quality), Awami Suit Gents Wash & Wear (Average Quality), Chaddar (Wash-N-Wear) (2X2.5 Meter), Pant Cloth Wash & Wear (Average Quality),	Shoe Repair Full Sole, Pullover Gents Oxford/Bonanza, Full Pant Boy Length 24"/26", Dopatta Cotton (Average Quality), Brassier (Average Quality), Vest "Baniyan" For Men Average Quality, Linen, Ladies (Average Quality), Lawn Printed Gul Ahmed/Al Karam, Georgette (Average Quality), Shoe	Tailoring Charges Simple Suit (Female), Underwear Medium Size (Average Quality), Shirt Boy Length 24"/26", Long Cloth 57" Gul Ahmed/Al Karam, Pullover Ladies Oxford/Bonanza, Dry Cleaning Charges Pant Coat Both, School Uniform Boys (Pant & Shirt) 24"/26", Children Shoes Power Lite Bata, Shirting (Average Quality), Pullover Gents (Average Quality),
Housing, Water, Elec, Gas & other Fuels	Gas Charges Upto 3.3719 Mmbtu , Gas Charges 3.3719 - 6.7438 Mmbtu , Gas Charges 6.7438 - 10.1157 Mmbtu , Gas Charges 10.1157 - 13.4876 Mmbtu , Gas Charges Above 13.4876 Mmbtu, Gas Charges Combined,	Bricks New 1St Class, Water Charges Per House, Painter Wage Rate, Charges For Refuse/Waste Collection,	Cement Blocks (6"X8"X12"), House Rent Combined, Synthetic Enamel Ici Balti 3.64 Litre, Sand (Black Pit), Mason Wage Rate, Plumber Wage Rate,	Electrician Charges, Firewood Whole, Unskilled Labor Wage Rate, Bajri, Cement (Local) 50 Kg Bag, Iron Bars (M.S. Bar) 1/2 " 40 Grade, Electricity Charges Above 700 Units, Lpg 11.67 Kg Cylinder, Electricity Charges 301-700 Units, Electricity Charges Combined, Electricity
Furnishing & Household Equip. Maintenance etc		Energy Saver Philips 14 Watt, Bed Sheet Double With Two Pillow Covers (Superior Quality), Phenyl Tyfon/Finis 2.75 Litre Bottle, Household Servant Female Part Time, Dining Table Wit Glass Top And Six Chairs (Average Quality), Bed Sheet Single (Superior	Cot Iron (Charpai), Chair Plastic (Chairman) (Average Quality), Refrigerator Dawlance/Pel 10 Cubic Feet Double Door, Robin Blue Liquid 75 Ml Bottle, Cleanser Powder Vim 900 Gm Polybag, Readymade Quilt (3 Kg), Plain	Dinner Set Plastic 72 Pieces Super Quality, Central Table Set With Glass Top, Water Pump Golden Monoblock/Donkey 0.5 H.P., Washing Machine With Spinner (Super Asia Or Similar Brand) (Sn), Bucket (Balti) Plastic Medium Size, Lota Plastic Medium Size (Average Quality), Harpic 500 MI
Health	Hydriyllin Syrup 120 Ml Bottle,	Glaxose-D 400 Gm Packet, Sugar Test (Random/Fasting) Charges Of Both, Gynecologist Fee Per Visit, Daonil Tablets 5 Mg, Ecg Charges, Physiotherapist Fee Per Visit, Dental Surgeon Fee Per Visit, Electronic Bp Checking Apparatus, Glucometer, X-Ray	Dental Extraction Fee, Ventolin Tablets 2 Mg, Urine Test (Dr) Charges, Entox Tablets, Phenergan Syrup 120 Ml Bottle, Johar Joshanda Instant (Sachet) Packet,	Cac 1000 Tablets Sandoz Bottle, Calpol Syrup 100 Ml Bottle, Dettol Medium Bottle, Ultrasound Abdominal, Doctor (Mbbs) Clinic Fee, Cost Of Surgery (C-Section), Amoxil Capsule 250 Mg, Septran Tablets, Inderal Tablets 10 Mg, Betnovate-N Ointment 10 Gm Tube, Lederplex Syrup
Transport	Car Suzuki 800 Cc Without Ac,	Bus Fare Outside City (Ac), Car Toyota 1300 Cc Xli, Train Fare Business Class Per Person, Mini Bus Fare Maximum Within City,	Mini Bus Fare Minimum Within City, Bus Fare Outside City (Non Ac), Car Suzuki 1000 Cc, Motorcycle Service Charges, Car Tax 800 Cc To 1500 Cc, Car Service Charges, Car Honda Civic Turbo 1.5 Vtec,	Train Fare Ac Sleeper Per Person, Bus Fare Minimum Within City, Train Fare Ac Lower Per Person, Bus Fare Maximum Within City, Tire Car Puncture Charges, Tire Motorcycle Cd 70 (Back Wheel), Tire Car Mehran Tubeless (General), Suzuki Fare Minimum Within City, Air Fare
Communication	Mobile Call Charges,	Internet Charges (Dsl) 1 Mb (Unlimited),	Mobile Set With Rear Camera And Without Touch Screen, Courier Charges Minimum Within Zone	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, Urdu Book Ba/B.Sc, Ballpoint Pen Local, English Book Ba/B.Sc, Mathematics Book Class Ix And X (Text Book Board),	Laptop Dell/Hp/Acer Core I5, Display (14"-15"), English Book Class Vi, Led Sony/Samsung 32" Colored, Lead Pencil Goldfish, 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), English Book Class Xi Complete Set, English Book Class Ix And X, Pen Ink Dollar 57 Ml Bottle, 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, Coaching Fee For Class Ix/X Science Group, Government Medical	Private Engineering University Tuition Fee For Be (1st Year),	Government Engineering University Tuition Fee For Be (1st Year), 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,	Burger With Shami Kabab (Average Quality), Cooked Daal At Average Hotel, Seekh Kabab (Beef) (Average Quality), Chicken Roast (Full) (Average Quality), Marriage Hall Service Charges With Food (Average Meal), Private Hostel
Miscellaneous		Wall Clock Quartz (Average Quality), Face Cream Ponds Medium Size (Cold), Silver Tezabi 24 Carett, Hair Style Charges (At Average Beauty Parlor), Purse Ladies Medium Size (Average Quality), Shaving Cream (Touchme Large/Admiral),	Toilet Soap Lux 75 Gm, Tissue Paper Perfumed Box 100 Napkins, Hair Cut Charges For Men, Shaving Charges, Shampoo Sun Silk/Pantene 90 Ml Bottle, Artificial Jewelry (Locket Set) (Average Quality),	Suitcase Ragzine (24"X16"X6") (Average Quality), Gold Tezabi 24 Carett, Electric Hair Straightener (Philips), Hair Color (Kala Kola), Tooth Brush (Shield), Hair Oil (Kala Kola Hair Tonic), Lipstick Swiss Miss/Medora (Medium), Trunk Medium Size (Average Quality),

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

Groups	Decrease or no change	Subdued increase (Greater than 0% but less than 5%)	Moderate increase (5% but less than 10%)	Double digit increase (10% or more)
Food & Non-Alcoholic Beverages	Tomatoes, Chilies (Green), Chilies Powder Loose, Pulse Moong (Washed), Ginger (Adrak), Lemon, Onions, Coriander Seed Powder Loose,	Salt Powder Loose, Sugar Refined, Turmeric Powder Loose, Guava (Amrood) (Average Quality), Rice Basmati 385/386, Eggs Farm, Powdered Milk Nido 390 Gm Polybag, Wheat,	Suji, Fruit Juice Small Packet 250 MI, Potatoes, Cold Drink (Pepsi/Coca-Cola) 1.5 Liter Bottle, Fish Fresh, Almonds (Badam) Kaghazi With Shell (Average Quality), Ice Cream Walls Cup (Large Size), Spinach (Paalak),	Curd, Desi Ghee, Milk Fresh (Un-Boiled), Chips (Loose), Gur (Average Quality), Bananas (Kela) Local, Rice Basmati Broken (Average Quality), Pulse Gram, Groundnuts (Moong Phali) With Shell, Jam-E-Shireen Standard Size (800 MI), Besan, Carrot (Gajar), Wheat Flour (Average Quality),
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), School Uniform Girls (Kameez & Shalwar) 24"/26", Dopatta Georgette (Average Quality), Footware Children Local (Average Quality), Tailoring Charges Simple Suit (Female), Tailoring Charges Awami Suit (Male), Chaddar	School Uniform Boys (Pant & Shirt) 24"/26", Shirting (Average Quality), Georgette (Average Quality), Shoe Polish Charges, Pullover Gents (Average Quality), Full Pant Boy Length 24"/26", Socks Nylon Local (Average Quality), Vest "Baniyan" For Men Average Quality, Brassier (Average Quality), Shoe Repair Full Sole
Housing, Water, Elec, Gas & other Fuels		Water Charges Per House, Bricks New 1St Class,	House Rent Combined, Painter Wage Rate, Mason Wage Rate,	Sand (Black Pit), Bajri, Plumber Wage Rate, Charges For Refuse/Waste Collection, Electrician Charges, Carpenter Wage Rate, Unskilled Labor Wage Rate, Firewood Whole, Coal, Cement (Local) 50 Kg Bag, Kerosene Oil, Electricity Charges Above
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'), Bucket (Balti) Plastic Medium Size, Water Set (Omroc) 6	Lota Plastic Medium Size (Average Quality), Tube Light Philips 40 Watt, Dinner Set Plastic 72 Pieces Super Quality, Plates Steel Medium Size (Average Quality), Robin Blue Liquid 75 MI Bottle, Water Pump Golden Monoblock/Donkey
Health	Hydriilin Syrup 120 MI Bottle,	X-Ray (Chest) Charges, Blood Test (Cp) Charges, Daonil Tablets 5 Mg, Cost Of Surgery (C-Section),	Amoxil Capsule 250 Mg, Dettol Medium Bottle, Doctor (Mbbs) Clinic Fee, Inderal Tablets 10 Mg,	Dental Surgeon Fee Per Visit, Cac 1000 Tablets Sandoz Bottle, Johar Joshanda Instant (Sachet) Packet, Physiotherapist Fee Per Visit, Panadol Tablets Plain,
Transport	Car Tax 800 Cc To 1500 Cc, Car Suzuki 800 Cc Without Ac,	Motorcycle Service Charges, Chingchi Rickshaw Charges, Minimum,	Tire Cycle,	Tire Motorcycle Cd 70 (Back Wheel), Air Fare Economy Class Per Kilometer, Tire Car Mehran Tubeless (General), Train Fare Economy Per Person, Motorcycle Honda Cd 70, Bicycle, Mobil Oil (Havoline 20W-50), Hi-Speed Diesel, Bus Fare Outside City
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),	Cable Charges, Exercise Book (With Lines) 80 To 100 Pages, English Books Class Ix And X, Pets Feed, Lead Pencil Goldfish,	Ballpoint Pen Local, 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), Private School Fee		
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), Seekh Kabab (Beef) (Average Quality), Bread Tandoori Standard Size, Cooked Beef At Average Hotel, Cooked Chicken At Average Hotel,
Miscellaneous		Blade Treet Ordinary (10 No. Packet), Shaving Cream (Touchme Large/Admiral), Purse Ladies Medium Size (Average Quality), Toilet Soap Lux 75 Gm,	Tooth Paste Colgate 75 Gm, Artificial Jewelry (Locket Set) (Average Quality), Suitcase Ragzine (24"X16"X6") (Average Quality),	Shampoo Sun Silk/Pantene 90 MI Bottle, Tooth Brush (Shield), Gold Tezabi 24 Carett, Hair Color (Kala Kola), Disposable Razor Gillette Blue Ii, Hair Removing Cream (Eu-Cream) 30MI Tube, Talcum Powder Viceroy/Black Cat, Trunk Medium

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

Groups	Decrease or no change	Subdued increase (Greater than 0% but less than 5%)	Moderate increase (5% but less than 10%)	Double digit increase (10% or more)
Agriculture Forestry & Fisher Product	Stimulant & Spice Crops, Maize,	Fish Live Fresh or Chilled, Cotton Seeds, Edible Roots / Potatoes, Raw Animal Materials / Wool, Dry Fruits,	Rice, Fuel Wood in Logs, Hides, Skins & Fur Skins, Raw, Sugar Crops,	Wheat, Eggs, Raw Milk from Bovine Animals, Poultry, Unmanufactured Tobacco, Sorghum / Jowar, Fresh Fruits, Pulses, Millet / Bajra, Vegetables, Other Oil Seeds, Fiber Crops,
Ores/Minerals, Elec, Gas & Water	Coal not Agglomerated,	Natural Gas Liquefied,		Salt & Pure Sodium Chloride, Electrical Energy,
Food, Beverages, Tobacco, Textile, Apparel and Leather Product	Spices, Tobacco Products, Nylon Yarn, Footwears,	Dried Fruits & Nuts, Blankets, Sugar Refined, Chocolate, Sugar Confectionary, Mineral Water, Other Food Products, Readymade Garments, Dairy Products N.E.C, Beverages, Processed Liquid Milk, Fruit Juices, Bed Sheets,	Other Leather N.E.C, Quilts, Woolen Carpets, Ice Cream, Synthetic Carpets, Milk & Cream in Solid Form,	Leather Without Hair, Coffee & Tea, Other Fabrics, Hosiery Products, Vegetables & Fruit Juice, Cotton Fabrics, Towels, Wheat Flour, Oil Cakes, Woven Fabrics, Meat of Animals, Silk & Reyon Fabrics, Other Cereal Flour,
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, Diesel Oil, Furnace Oil, Fertilizers, Chemicals,
Metal Product, Machinery & Equipments	Vacuum Pumps,	Radio & Television, Electric Wires, Air Conditioners,	Steel Products, Bicycles, Motor Vehicles, Engines & Motors,	Lighting Equipments, Fridge, WashM, SewM, Fans, Iron, Tractors, Lathe Machines, Motorcycles, Pipe Fittings, Concrete Mixture, Steel Bar & Sheets, Cultivators, Chuff Cutter,

Table A19: International Commodity Prices/Indices				
Commodity/Indices	Jun-21	Jan-21	Dec-21	Jan-22
Energy				
Crude Oil (US\$ per barrel)*	71.8	53.6	72.9	83.9
Energy Index (2010 = 100)	93.1	69.3	111.4	120.3
Food				
Rice (\$/MT)	466.0	545.0	400.0	427.0
Wheat (\$/MT)##	263.5	276.4	327.8	332.1
Sugar (US cent/ pound)^	17.4	15.2	18.8	18.2
Palm Oil (\$/MT)	1,004.4	990.3	1,270.3	1,344.8
Soybean Oil (\$/MT)	1,518.2	1,098.7	1,411.2	1,469.6
Non-Food Non-Energy				
Cotton Outlook 'A' Index #^	94.5	87.2	120.0	132.0
Metal Price Index (2010 = 100)	119.0	99.7	125.2	133.2
Copper (\$/MT)	9,631.5	7,972.2	9,551.2	9,782.3
Aluminum (\$/MT)	2,446.7	2,004.0	2,695.5	3,006.0
Iron Ore (\$ cents/dry MT)	214.4	169.6	117.0	132.5
Tin (\$/MT)	32,502.6	21,920.2	39,422.5	41,791.7
Nickel (\$/MT)	17,979.6	17,863.2	20,015.6	22,355.4
Zinc (\$/MT)	2,951.9	2,705.3	3,399.2	3,599.1
Lead (\$/MT)	2,191.0	2,014.7	2,301.7	2,331.9
Uranium (\$/MT)@	32.3	29.6	42.1	43.1
DAP (\$/MT)	604.8	421.3	745.0	699.4
Urea (\$/MT)	393.3	265.0	890.0	846.4

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	158.78
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	107.02	114.23	123.87	135.47	146.92
Aug	107.21	113.93	125.99	136.43	147.91
Sep	107.68	113.58	126.56	138.04	150.47
Oct	108.23	115.26	127.97	139.36	152.16
Nov	108.80	114.89	129.35	140.07	156.16
Dec	109.81	115.61	130.14	140.44	157.63
Jan	110.15	116.24	133.14	140.64	158.84
Feb	110.38	117.75	132.27	143.70	
Mar	110.47	119.95	132.16	144.05	
Apr	111.22	120.42	130.71	145.25	
May	112.32	121.80	131.85	146.20	
Jun	113.40	122.59	133.20	146.15	

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	157.56
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	107.41	114.70	124.76	134.59	146.32
Aug	107.70	114.41	126.68	135.80	147.16
Sep	108.04	114.20	127.45	137.28	149.84
Oct	108.55	116.20	128.81	138.26	151.48
Nov	109.16	115.95	129.88	138.86	155.46
Dec	110.21	116.61	130.55	139.58	157.30
Jan	110.49	117.28	132.98	139.64	157.74
Feb	110.79	118.71	131.94	143.22	
Mar	111.00	120.84	132.01	143.47	
Apr	111.84	121.19	130.50	144.81	
May	112.93	122.58	131.51	145.79	
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	160.62
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	106.44	113.53	122.54	136.79	147.81
Aug	106.48	113.19	124.95	137.39	149.03
Sep	107.14	112.65	125.21	139.18	151.42
Oct	107.76	113.84	126.71	141.01	153.19
Nov	108.26	113.27	128.55	141.89	157.21
Dec	109.20	114.10	129.52	141.75	158.14
Jan	109.63	114.68	133.38	142.15	160.49
Feb	109.77	116.30	132.76	144.44	
Mar	109.67	118.61	132.38	144.91	
Apr	110.29	119.27	131.03	145.91	
May	111.39	120.63	132.36	146.82	
Jun	112.48	121.49	133.77	146.89	

Table A23: National CPI Monthly & Average Seasonal Factors						
Period	FY18	FY19	FY20	FY21	FY22	Average
Jul	100.12	100.05	99.99	99.93	99.89	100.00
Aug	100.09	100.01	99.92	99.85	99.80	99.93
Sep	100.34	100.28	100.24	100.20	100.18	100.25
Oct	100.92	100.92	100.93	100.94	100.95	100.93
Nov	101.06	101.13	101.20	101.26	101.30	101.19
Dec	100.10	100.18	100.24	100.30	100.33	100.23
Jan	99.88	99.89	99.92	99.94	99.96	99.92
Feb	99.40	99.46	99.52	99.57		99.49
Mar	99.54	99.59	99.65	99.70		99.62
Apr	99.93	99.92	99.91	99.89		99.91
May	99.41	99.38	99.36	99.34		99.37
Jun	99.28	99.22	99.16	99.09		99.19

Table A24: Urban CPI Monthly & Average Seasonal Factors						
Period	FY18	FY19	FY20	FY21	FY22	Average
Jul	100.28	100.21	100.15	100.10	100.06	100.16
Aug	100.21	100.14	100.07	100.02	99.97	100.08
Sep	100.31	100.25	100.21	100.18	100.16	100.22
Oct	100.73	100.72	100.73	100.73	100.74	100.73
Nov	100.80	100.85	100.90	100.93	100.96	100.89
Dec	99.88	99.96	100.02	100.06	100.10	100.01
Jan	99.81	99.82	99.84	99.86	99.88	99.84
Feb	99.40	99.47	99.53	99.58		99.49
Mar	99.49	99.54	99.61	99.66		99.58
Apr	100.09	100.09	100.07	100.07		100.08
May	99.64	99.62	99.60	99.59		99.61
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	99.87	99.80	99.74	99.68	99.64	99.75
Aug	99.90	99.79	99.69	99.60	99.54	99.70
Sep	100.37	100.32	100.27	100.23	100.21	100.28
Oct	101.20	101.22	101.24	101.26	101.28	101.24
Nov	101.45	101.55	101.65	101.73	101.80	101.63
Dec	100.44	100.52	100.58	100.64	100.68	100.57
Jan	99.97	100.00	100.03	100.05	100.08	100.03
Feb	99.40	99.47	99.52	99.57		99.49
Mar	99.61	99.66	99.71	99.75		99.68
Apr	99.70	99.68	99.66	99.63		99.67
May	99.05	99.02	99.00	98.98		99.01
Jun	99.07	99.01	98.94	98.88		98.97

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	0.39
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	-0.21	0.73	1.05	1.70	0.52
Aug	0.18	-0.26	1.71	0.71	0.68
Sep	0.44	-0.30	0.45	1.18	1.73
Oct	0.51	1.48	1.12	0.95	1.12
Nov	0.52	-0.33	1.08	0.51	2.63
Dec	0.93	0.63	0.61	0.27	0.95
Jan	0.31	0.55	2.30	0.14	0.76
Feb	0.21	1.30	-0.65	2.18	
Mar	0.08	1.87	-0.08	0.24	
Apr	0.68	0.39	-1.09	0.83	
May	0.99	1.14	0.87	0.66	
Jun	0.97	0.64	1.02	-0.03	

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	0.06
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	-0.22	0.60	1.18	1.34	0.45
Aug	0.27	-0.25	1.54	0.90	0.58
Sep	0.32	-0.19	0.61	1.09	1.82
Oct	0.47	1.75	1.07	0.72	1.09
Nov	0.56	-0.21	0.83	0.44	2.63
Dec	0.96	0.57	0.51	0.52	1.18
Jan	0.25	0.57	1.86	0.05	0.28
Feb	0.27	1.22	-0.78	2.56	
Mar	0.19	1.79	0.05	0.18	
Apr	0.76	0.29	-1.14	0.93	
May	0.98	1.15	0.77	0.68	
Jun	0.95	0.60	0.99	-0.09	

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	0.89
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	-0.20	0.93	0.86	2.26	0.63
Aug	0.04	-0.29	1.96	0.43	0.83
Sep	0.62	-0.48	0.21	1.31	1.61
Oct	0.58	1.06	1.19	1.31	1.17
Nov	0.47	-0.50	1.46	0.63	2.62
Dec	0.87	0.73	0.75	-0.10	0.59
Jan	0.39	0.51	2.98	0.29	1.49
Feb	0.12	1.41	-0.46	1.61	
Mar	-0.08	1.99	-0.29	0.33	
Apr	0.56	0.56	-1.02	0.69	
May	1.00	1.14	1.01	0.62	
Jun	0.98	0.71	1.07	0.05	

List of Figures

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

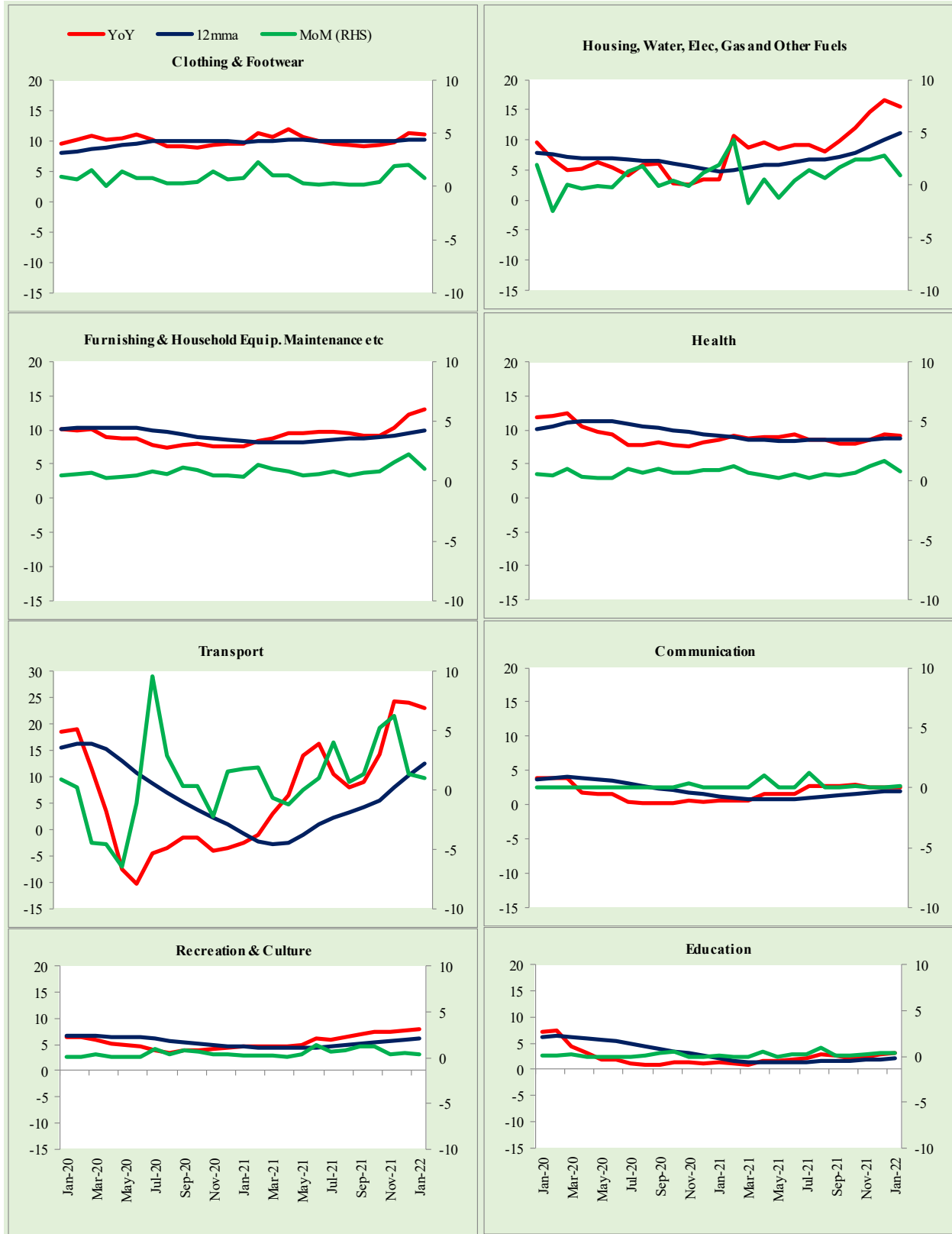


Figure A2: Urban CPI Non-food Inflation (YoY, 12MMA, MoM in percent)

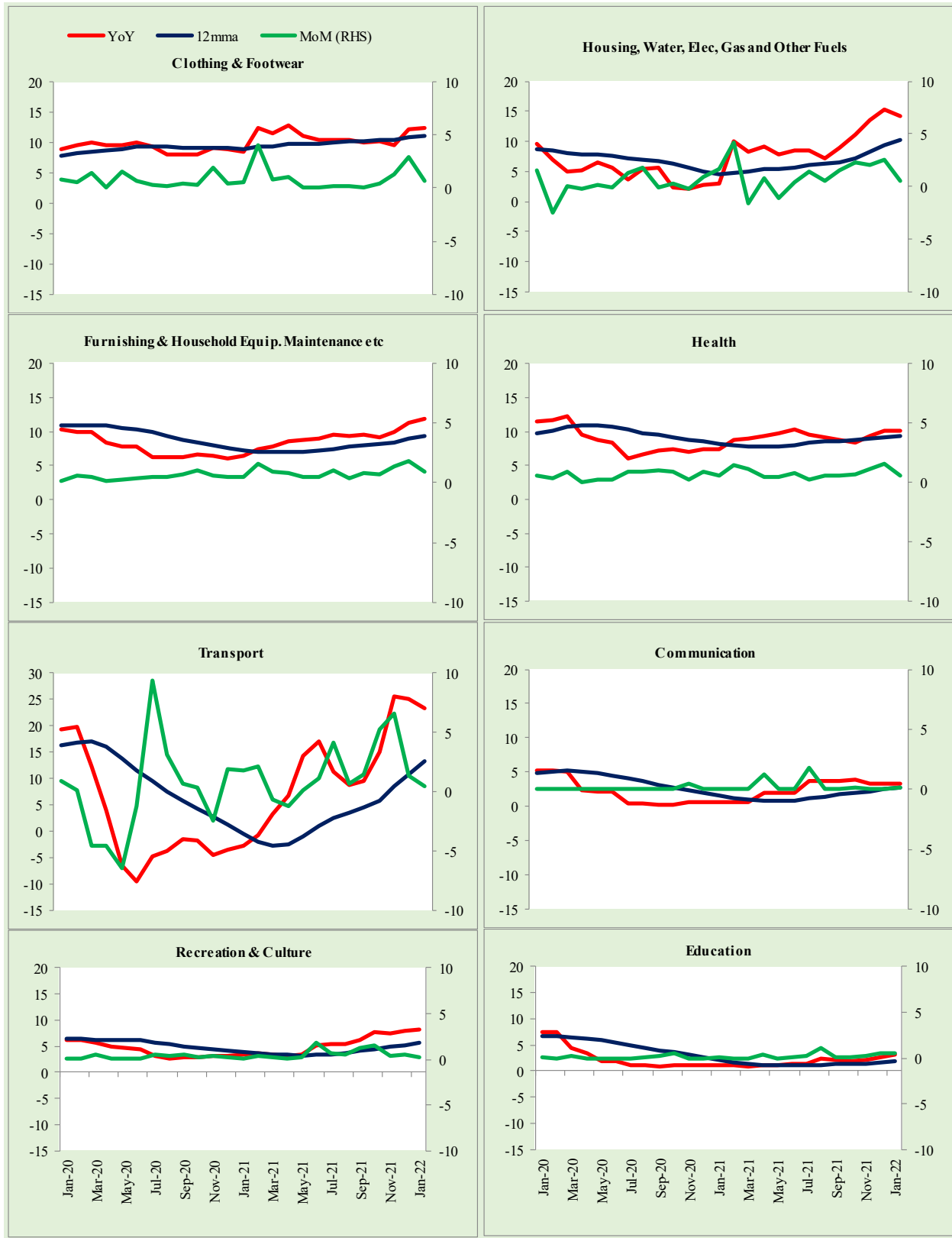


Figure A3: Rural CPI Non-food Inflation (YoY, 12MMA, MoM in percent)

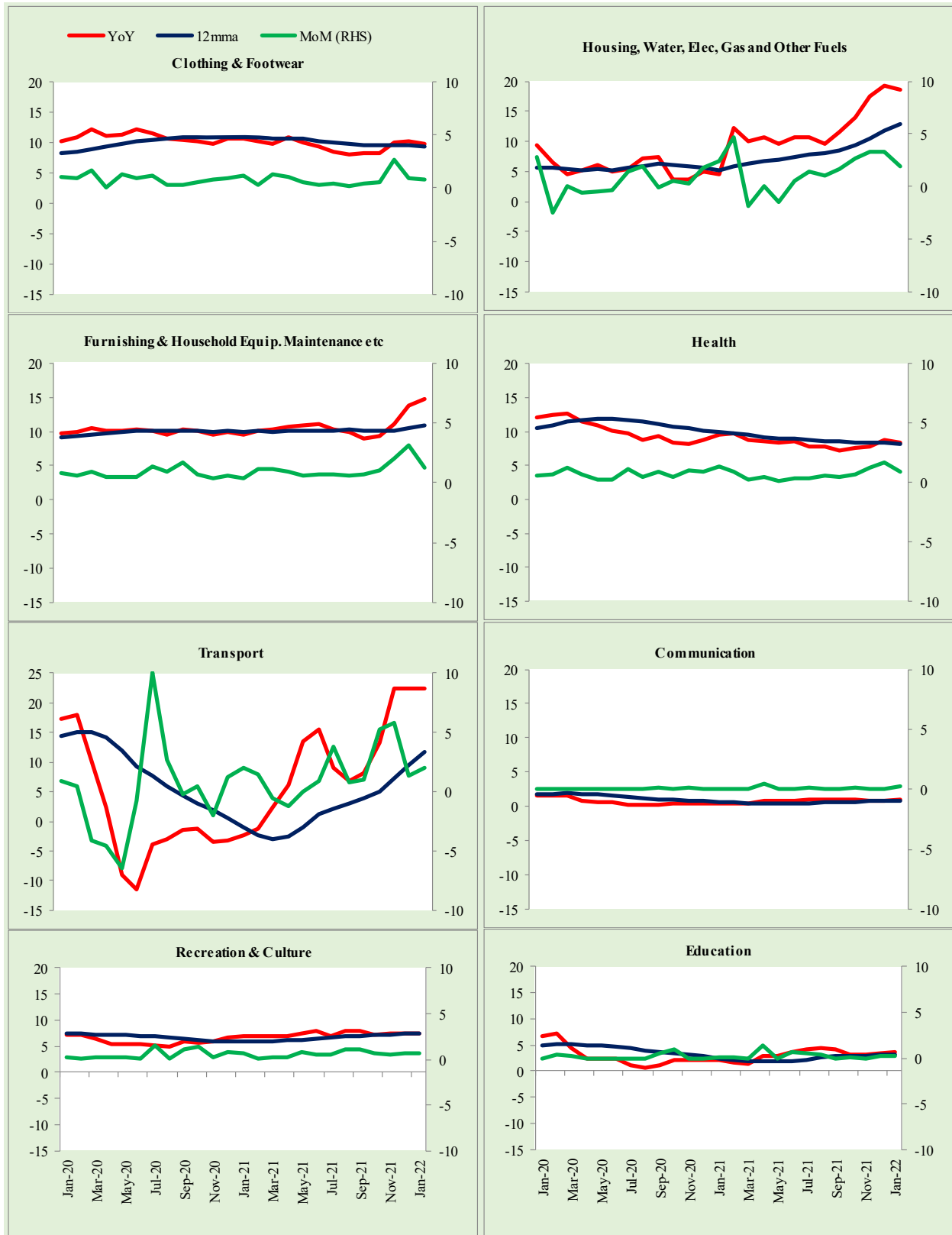
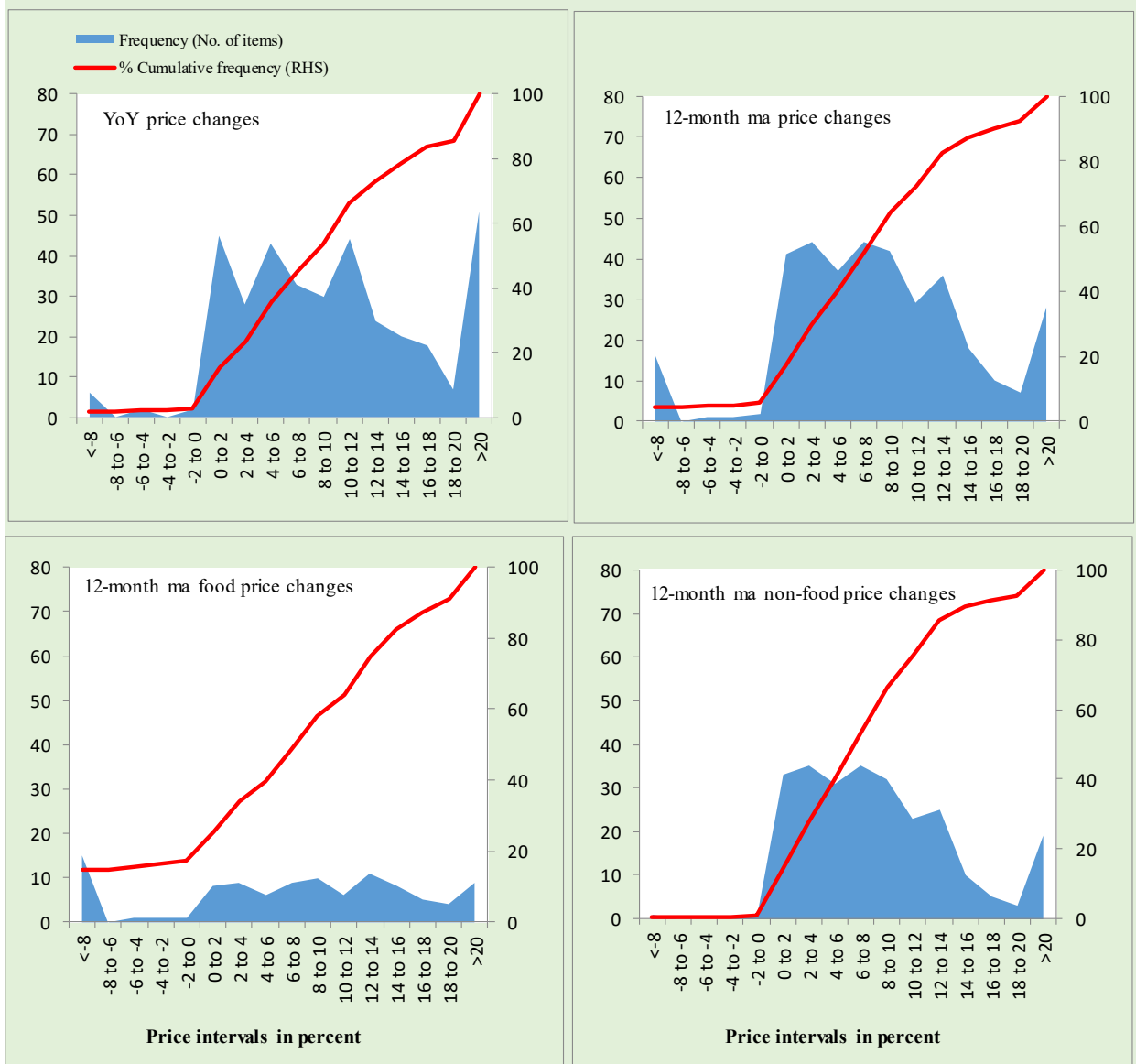
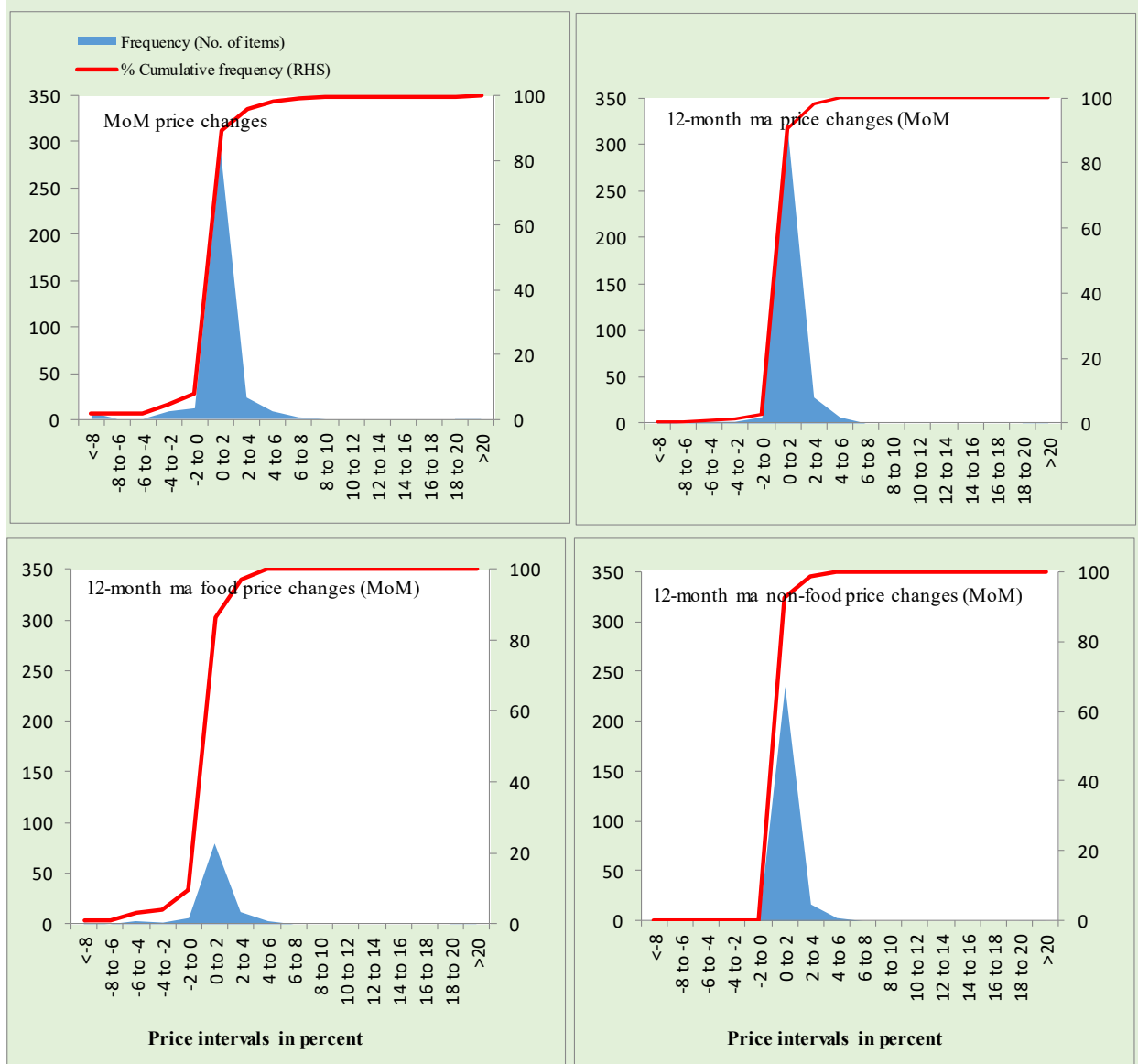


Figure A4: Frequency Distribution of Price Changes of Urban CPI Items (YoY)



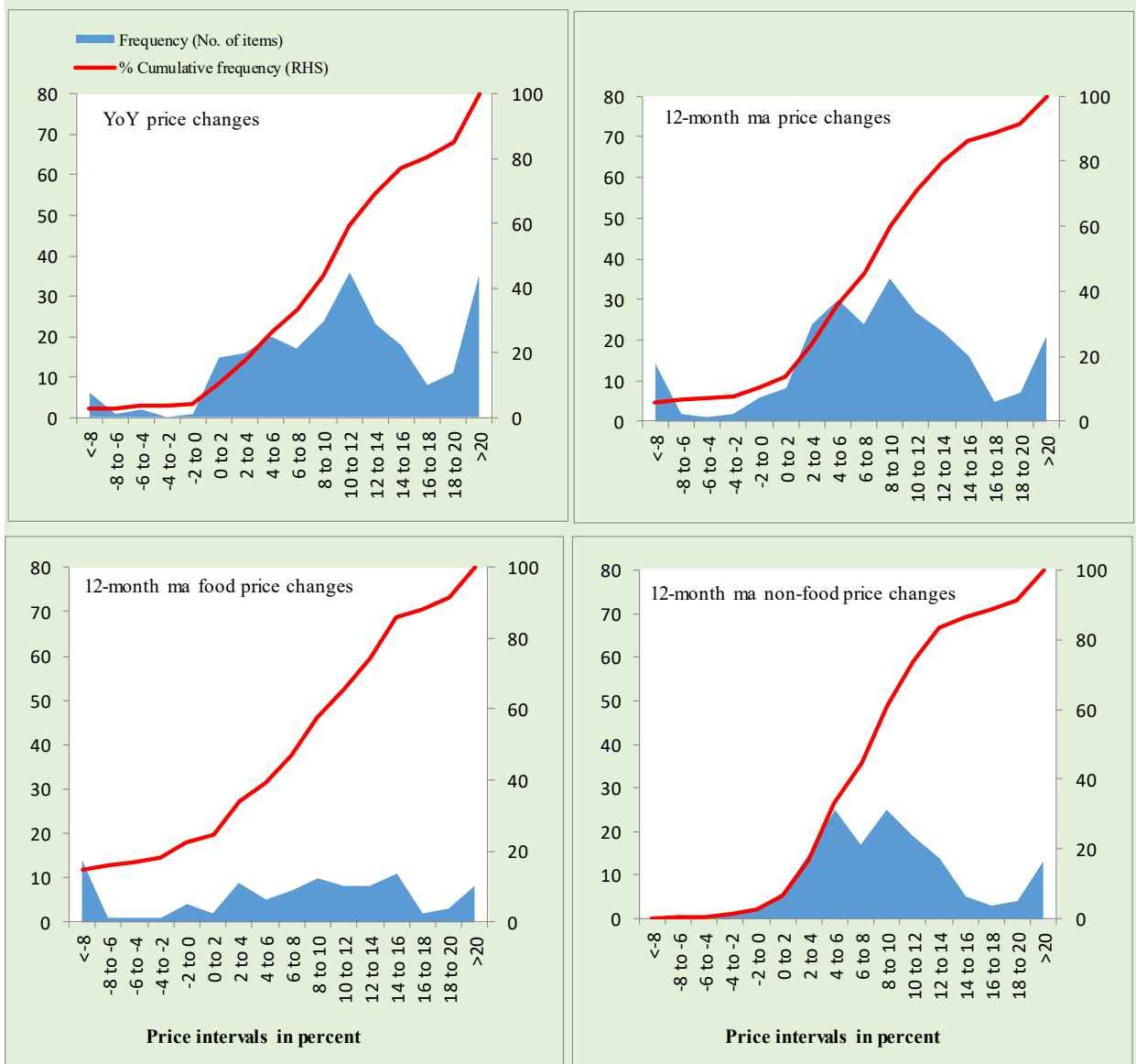
Total Items in CPI Basket (356), Food Items (103) and non-Food Items (253).

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



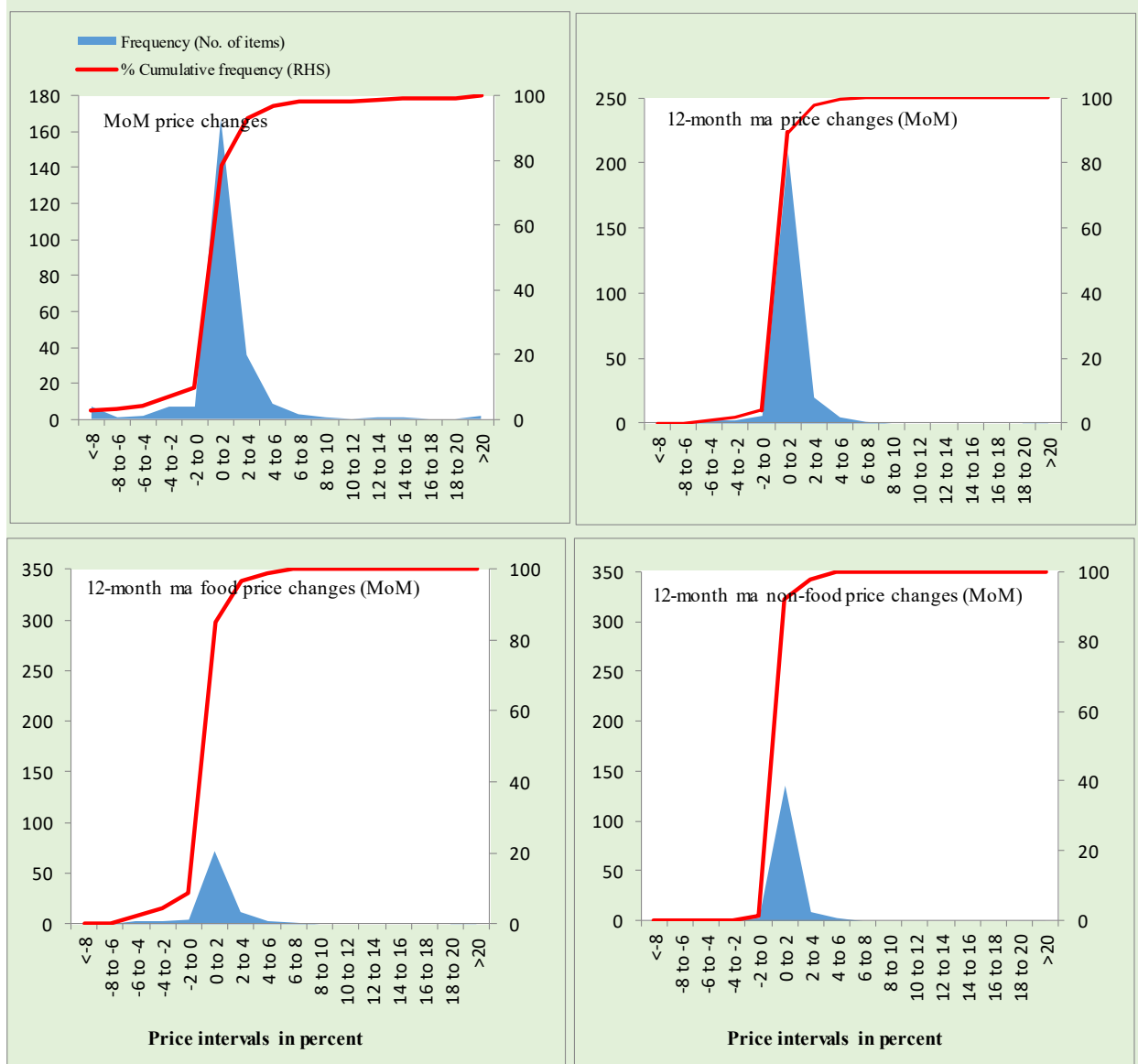
Total Items in CPI Basket (356), Food Items (103) and non-Food Items (253).

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



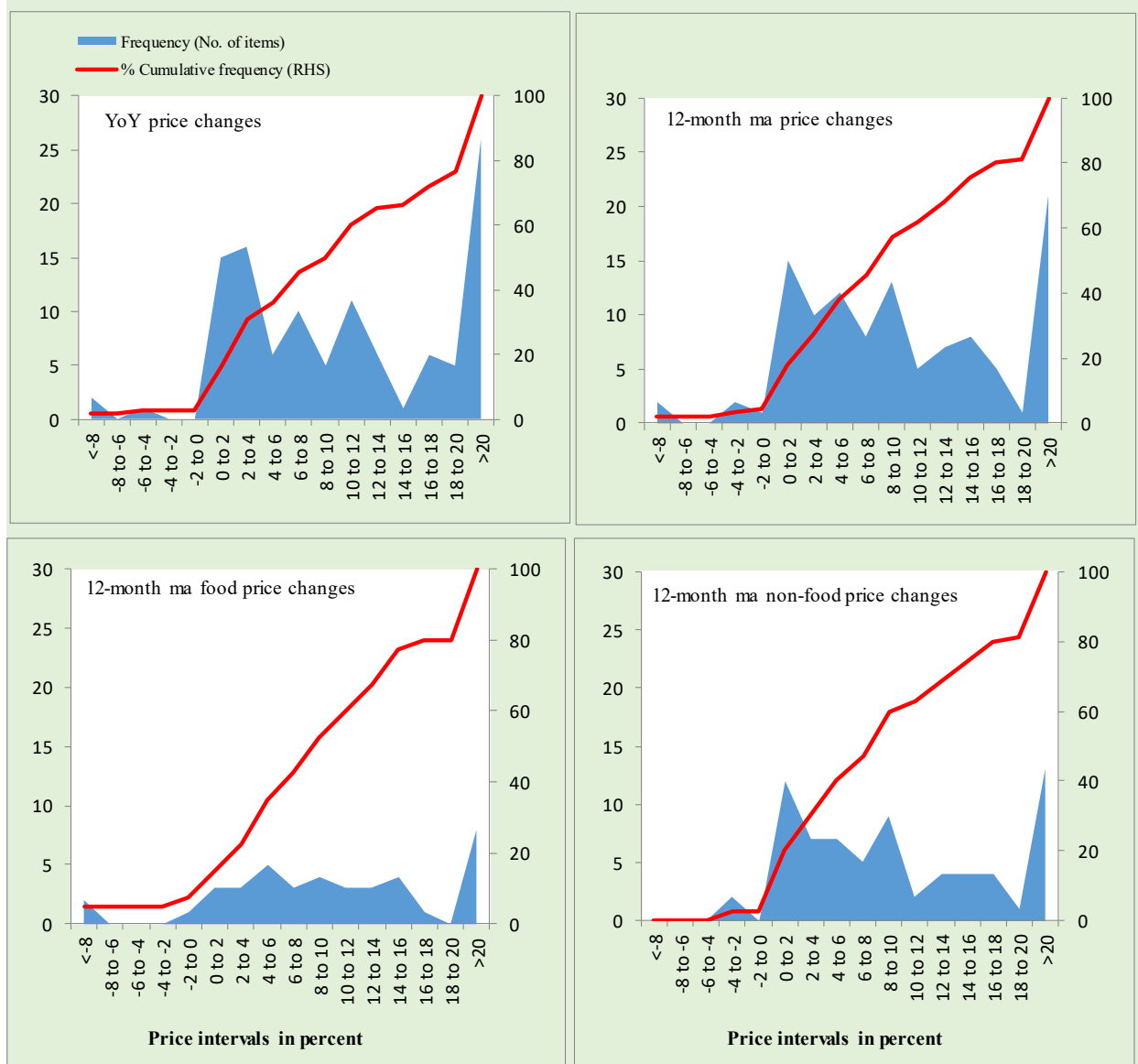
Total Items in CPI Basket (244), Food Items (94) and non-Food Items (150).

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
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.