

Inflation Monitor

March 2022
(Base Year: 2015-16)



State Bank of Pakistan
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- Provided by Pakistan Bureau of Statistics (PBS), for domestic inflation analysis
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1. Inflation in Brief

1. National CPI Inflation increased to 12.7 percent in March 2022 from 12.2 percent in previous month. It stood at 9.1 percent in the corresponding month of last year. However, on month-on-month basis (MoM), National CPI Inflation decreased to 0.8% in March 2022 from 1.2% in previous month.
2. Urban CPI Inflation (year-on-year basis) increased from 11.5 percent in February 2022 to 11.9 percent in March 2022. It stood at 8.7 percent during the corresponding month of last year. Urban CPI Inflation (month-on-month basis) decreased from 0.9 percent in February 2022 to 0.7 percent in March 2022. It stood at 0.3 percent in the corresponding month of last year. Seasonally adjusted month-on-month CPI Inflation recorded at 0.6 percent in March 2022 compared to 1.0 percent in the previous month.
3. Rural CPI Inflation (year-on-year basis) increased to 13.9 percent in March 2022 from 13.3 percent in previous month. It was 9.5 percent during the corresponding month of last year. Rural CPI Inflation (month-on-month basis) decreased to 1.0 percent in March 2022 from 1.5 percent in the previous month. Seasonally adjusted (month-on-month) CPI Inflation recorded at 0.9 percent in March 2022 compared to 1.6 percent in previous month.
4. Urban Core Inflation (trimmed) on year-on-year basis increased to 10.5 percent in March 2022 from 9.8 percent in previous month. It stood at 8.1 percent during the corresponding month of last year. On month-on-month basis, Urban Core Inflation (trimmed) remained same at 0.8 percent in March 2022 as was in February 2022. It stood at 0.4 percent during the corresponding month of last year.
5. Rural Core Inflation (trimmed) on year-on-year basis increased to 11.7 percent in March 2022 from 11.3 percent in February 2022. It was 9.4 percent during the corresponding month of last year. On month-on-month basis, Rural Core Inflation (trimmed) stood at 0.8 percent in March 2022 as compared to 1.2 percent in previous month and 0.3 percent during corresponding month of last year.
6. Urban Core (Non-food, Non-energy (NFNE)) Inflation on year-on-year basis increased to 8.9 percent in March 2022 from 7.8 in previous month. It stood at 6.3 percent during corresponding month of last year. On month-on-month basis, Urban Core (NFNE) Inflation increased to 1.2 percent in March 2022 from 0.8 percent in previous month. It stood at 0.2 percent during the corresponding month of last year.
7. Rural Core (Non-food, Non-energy (NFNE)) Inflation on year-on-year basis increased to 10.3 percent in March 2022 from 9.4 percent in previous month. It stood at 7.3 percent during the corresponding month of last year. On month-on-month basis, it increased to 1.1 percent in March 2022 from 0.9 percent in previous month. It was 0.3 percent during the corresponding month of last year.
8. WPI Inflation on year-on-year basis increased from 23.6 percent in February 2022 to 23.8 percent in March 2022. It stood at 14.6 percent during the corresponding month of last year. On month-on-month basis, it increased to 3.9 percent in March 2022 from 1.9 percent in previous month.

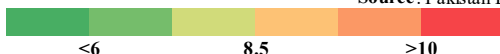
9. SPI Inflation on year-on-year basis decreased to 15.8 percent in March 2022 from 18.1 percent in previous month. During corresponding month of last year, SPI Inflation stood at 14.3 percent. On month-on-month basis, SPI Inflation decreased to 0.6 percent in March 2022 as compared to 1.3 percent in 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.

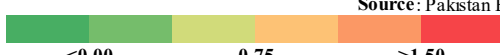
		Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22
Headline	National	9.1	11.1	10.9	9.7	8.4	8.4	9.0	9.2	11.5	12.3	13.0	12.2	12.7
	Urban	8.7	11.0	10.8	9.6	8.7	8.3	9.1	9.6	12.0	12.7	13.0	11.5	11.9
	Rural	9.5	11.3	10.9	9.7	8.0	8.4	8.8	8.7	10.9	11.6	12.9	13.3	13.9
Food	Urban	11.5	15.7	15.3	11.0	9.4	10.2	10.8	9.4	11.9	11.7	13.3	14.3	14.5
	Rural	11.1	14.1	12.8	9.8	7.3	9.1	9.1	7.2	8.6	9.0	11.8	14.6	15.5
Core	Urban	6.3	7.0	6.8	6.7	6.9	6.3	6.4	6.7	7.6	8.3	8.2	7.8	8.9
	Rural	7.3	7.7	7.6	7.3	6.9	6.2	6.2	6.7	8.2	8.9	9.0	9.4	10.3

Source: Pakistan Bureau of Statistics and SBP staff estimates

Key 


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

Source: Pakistan Bureau of Statistics and SBP staff estimates

Key 

	Weights	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22
General	100.00	9.1	11.1	10.9	9.7	8.4	8.4	9.0	9.2	11.5	12.3	13.0	12.2	12.7
Food and Non-Alcoholic Beverages	34.58	11.6	15.9	14.8	10.5	8.2	10.0	10.2	8.3	10.5	10.3	12.8	14.7	15.3
Alcoholic Beverages, Tobacco	1.02	5.9	4.9	5.0	5.0	3.1	2.1	2.0	1.9	1.8	2.0	2.0	2.1	1.8
Clothing and Footwear	8.60	10.7	11.9	10.7	10.0	9.5	9.3	9.2	9.3	9.8	11.2	11.2	9.7	9.7
Housing, Water, Elec., Gas and Other Fuels	23.63	8.8	9.7	8.4	9.1	9.2	8.0	9.8	12.0	14.8	16.6	15.5	9.0	8.3
Furnishing and Household Equipment Maintenance	4.10	8.9	9.5	9.6	9.8	9.8	9.6	9.3	9.2	10.4	12.3	13.0	13.4	13.8
Health	2.79	8.8	9.0	9.0	9.4	8.6	8.5	8.0	8.0	8.5	9.4	9.2	10.1	10.0
Transport	5.91	2.9	6.5	14.0	16.4	10.5	8.1	9.1	14.4	24.4	24.1	23.1	25.0	26.3
Communication	2.21	0.6	1.5	1.5	1.6	2.8	2.8	2.8	2.8	2.5	2.5	2.6	2.5	2.6
Recreation and Culture	1.59	4.6	4.6	4.9	6.2	5.9	6.4	6.9	7.5	7.5	7.7	7.8	8.2	9.3
Education	3.79	1.0	1.6	1.6	1.8	2.0	2.9	2.6	2.2	2.4	2.8	3.2	3.4	8.3
Restaurants and Hotels	6.92	8.1	8.2	8.6	8.8	8.5	7.3	7.8	8.3	11.0	12.6	13.0	14.4	14.6
Misc. Goods and Services	4.87	10.6	10.0	10.7	10.9	9.4	5.9	7.4	8.7	10.0	10.6	10.3	10.1	12.4

Source: Pakistan Bureau of Statistics and SBP staff estimates

Key 

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

Source: Pakistan Bureau of Statistics and SBP staff estimates

<0.00 0.75 >1.50

Heat-map of Rural CPI inflation (YoY)														
	Weights	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22
Rural	100.00	9.5	11.3	10.9	9.7	8.0	8.4	8.8	8.7	10.9	11.6	12.9	13.3	13.9
Food	45.95	11.1	14.1	12.8	9.8	7.3	9.1	9.1	7.2	8.6	9.0	11.8	14.6	15.5
Non-perishable	40.16	16.9	17.2	16.9	12.2	10.3	9.9	12.3	11.2	11.7	12.8	12.8	12.4	13.7
Perishable	5.79	-19.4	0.5	-8.2	-5.5	-9.7	5.4	-6.8	-12.5	-5.5	-12.0	6.6	35.8	32.8
Non Food	54.05	8.1	8.9	9.2	9.7	8.7	7.7	8.5	10.0	13.0	14.0	13.9	12.2	12.5
Energy	11.41	11.1	13.8	16.0	19.8	15.7	13.8	17.2	23.2	32.0	34.0	32.7	21.9	20.4
NFNE (Core)	42.64	7.3	7.7	7.6	7.3	6.9	6.2	6.2	6.7	8.2	8.9	9.0	9.4	10.3
HRI	8.61	5.8	6.6	6.6	6.6	6.1	6.1	6.1	6.6	6.6	6.6	5.9	5.9	5.9
Core Excl HRI	34.03	7.7	8.0	7.8	7.5	7.1	6.3	6.3	6.7	8.6	9.5	9.7	10.3	11.4

Source: Pakistan Bureau of Statistics and SBP staff estimates

<6 8.5 >10

Heat-map of Urban CPI inflation (YoY)														
	Weights	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22
Urban	100.00	8.7	11.0	10.8	9.6	8.7	8.3	9.1	9.6	12.0	12.7	13.0	11.5	11.9
Food	36.80	11.5	15.7	15.3	11.0	9.4	10.2	10.8	9.4	11.9	11.7	13.3	14.3	14.5
Non-perishable	32.34	17.2	19.4	19.3	13.5	12.7	12.2	15.3	13.2	15.3	15.5	14.7	11.8	13.0
Perishable	4.46	-15.6	4.6	-0.2	-2.5	-8.7	1.7	-9.6	-8.9	-1.9	-8.7	6.3	34.1	28.0
Non Food	63.20	7.1	8.2	8.3	8.8	8.2	7.2	8.1	9.7	12.0	13.4	12.8	9.9	10.4
Energy	9.47	11.8	14.9	16.6	21.1	16.1	12.2	17.8	25.9	37.2	41.3	38.1	20.2	18.0
NFNE (Core)	53.73	6.3	7.0	6.8	6.7	6.9	6.3	6.4	6.7	7.6	8.3	8.2	7.8	8.9
HRI	19.26	4.8	6.2	6.2	6.2	6.1	6.1	6.1	6.6	6.6	6.6	6.1	6.1	6.1
Core Excl HRI	34.47	7.1	7.5	7.2	7.0	7.3	6.4	6.5	6.8	8.1	9.2	9.3	8.7	10.5

Source: Pakistan Bureau of Statistics and SBP staff estimates

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Heat-map of Rural CPI inflation (MoM)														
	Weights	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22
Rural	100.00	0.5	0.6	0.0	-0.1	1.4	0.7	2.3	2.2	3.1	-0.5	0.9	1.5	1.0
Food	45.95	1.5	0.9	0.2	-0.8	1.6	0.8	3.7	2.6	3.3	-3.1	0.4	2.6	2.3
Non-perishable	40.16	1.6	-1.2	1.8	-1.0	0.4	0.5	4.1	2.0	1.8	-0.4	1.0	1.4	2.8
Perishable	5.79	2.8	18.5	-10.2	-0.3	12.1	3.3	4.3	7.1	14.5	-21.8	-5.1	13.3	0.5
Non Food	54.05	-0.4	0.3	-0.3	0.6	1.2	0.6	1.0	1.9	3.0	1.9	1.4	0.4	-0.2
Energy	11.41	-2.8	-1.3	-2.4	1.1	3.1	2.2	2.9	5.2	7.0	4.4	1.9	-0.9	-4.0
NFNE (Core)	42.64	0.3	0.7	0.3	0.4	0.7	0.2	0.5	1.0	1.8	1.1	1.2	0.9	1.1
HRI	8.61	0.0	1.2	0.0	0.0	1.2	0.0	0.0	1.3	0.0	0.0	2.1	0.0	0.0
Core Excl HRI	34.03	0.3	0.6	0.4	0.5	0.6	0.2	0.6	1.0	2.2	1.4	1.0	1.1	1.3

Source: Pakistan Bureau of Statistics and SBP staff estimates

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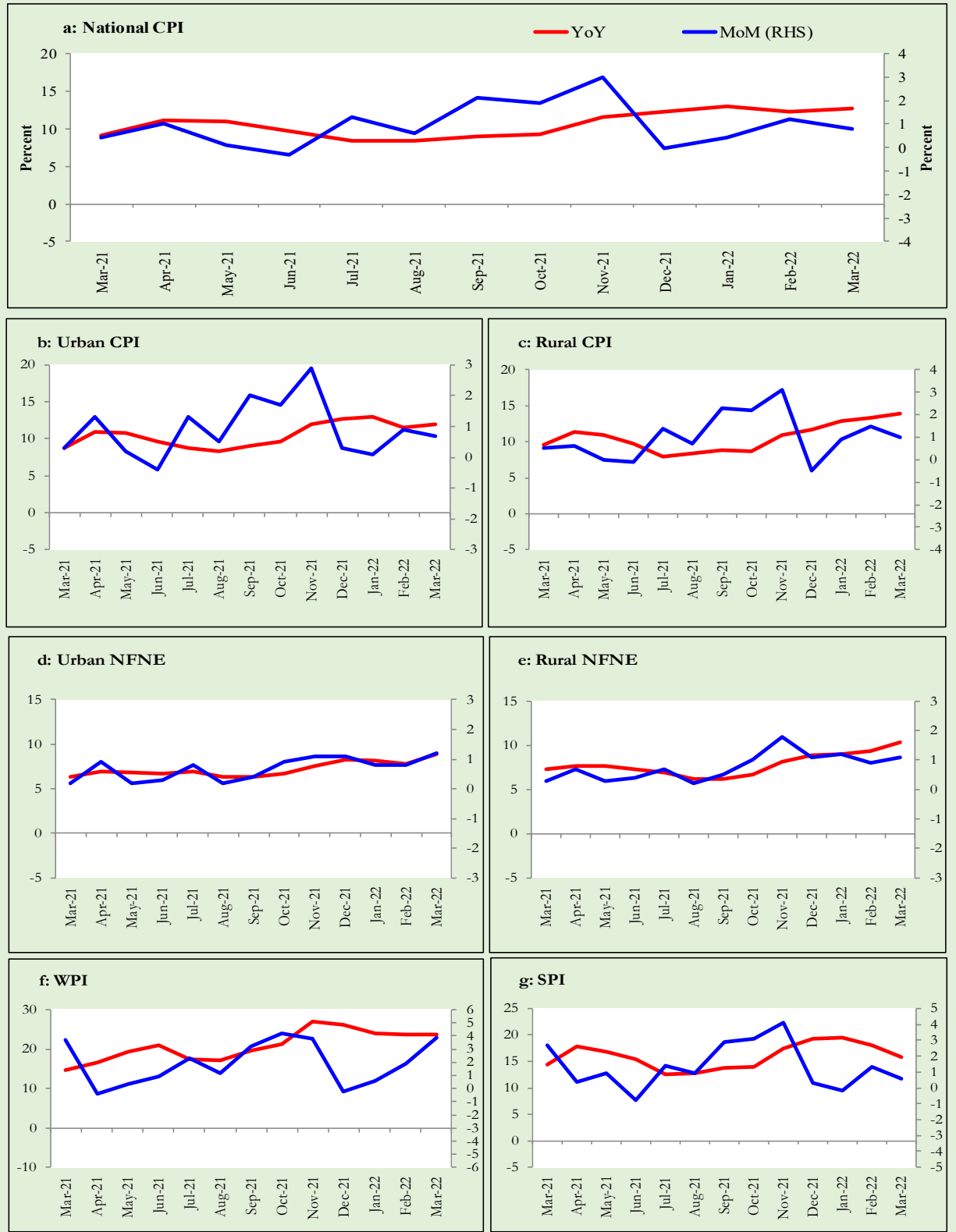
Heat-map of Urban CPI inflation (MoM)														
	Weights	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22
Urban	100.00	0.3	1.3	0.2	-0.4	1.3	0.5	2.0	1.7	2.9	0.3	0.1	0.9	0.7
Food	36.80	1.7	2.7	1.1	-1.9	1.5	0.5	3.6	1.5	3.9	-2.3	-0.8	2.2	1.8
<i>Non-perishable</i>	32.34	1.5	0.5	2.5	-2.3	0.8	0.3	4.2	1.0	2.4	0.2	-0.4	0.5	2.6
<i>Perishable</i>	4.46	3.7	23.0	-7.1	-3.9	7.3	2.0	2.6	5.2	15.1	-20.2	-5.4	14.7	-1.1
Non Food	63.20	-0.6	0.5	-0.3	0.5	1.1	0.5	1.1	1.8	2.2	2.0	0.6	0.2	-0.1
<i>Energy</i>	9.47	-4.1	-1.5	-3.2	1.3	3.5	2.1	4.6	6.0	7.6	5.8	-0.4	-2.3	-5.9
<i>NFNE (Core)</i>	53.73	0.2	0.9	0.2	0.3	0.8	0.2	0.4	0.9	1.1	1.1	0.8	0.8	1.2
<i>HRI</i>	19.26	0.0	1.6	0.0	0.0	1.4	0.0	0.0	1.4	0.0	0.0	1.5	0.0	0.0
<i>Core Excl HRI</i>	34.47	0.2	0.5	0.3	0.5	0.4	0.3	0.6	0.6	1.7	1.7	0.4	1.1	1.9

Source: Pakistan Bureau of Statistics and SBP staff estimates

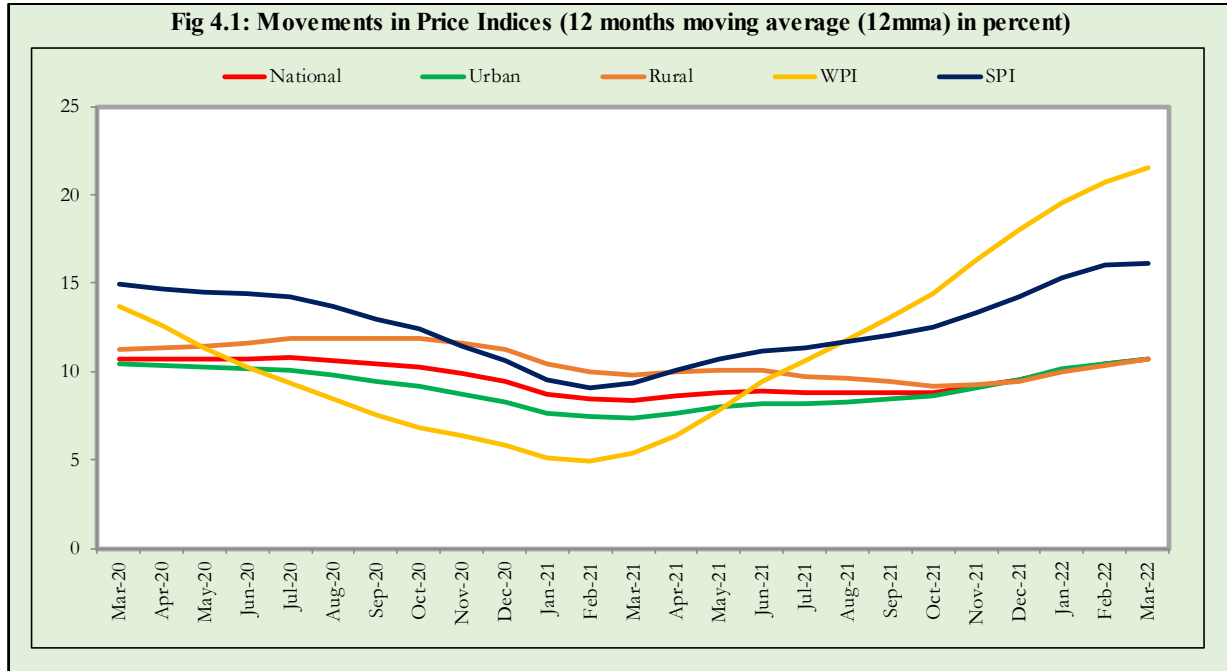
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3. Trends in Inflation

Fig 3.1: Summary of Inflation Trends (in percent)



4. Movement in Price Indices (Moving Averages)



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

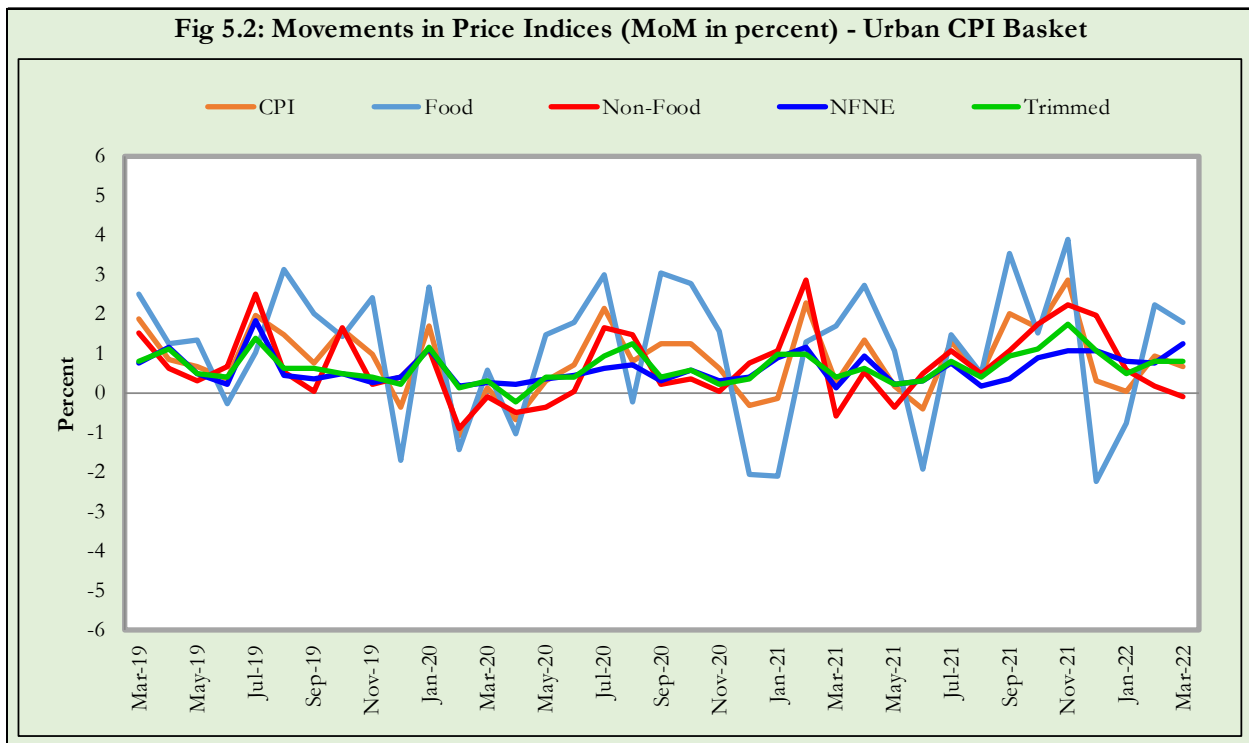
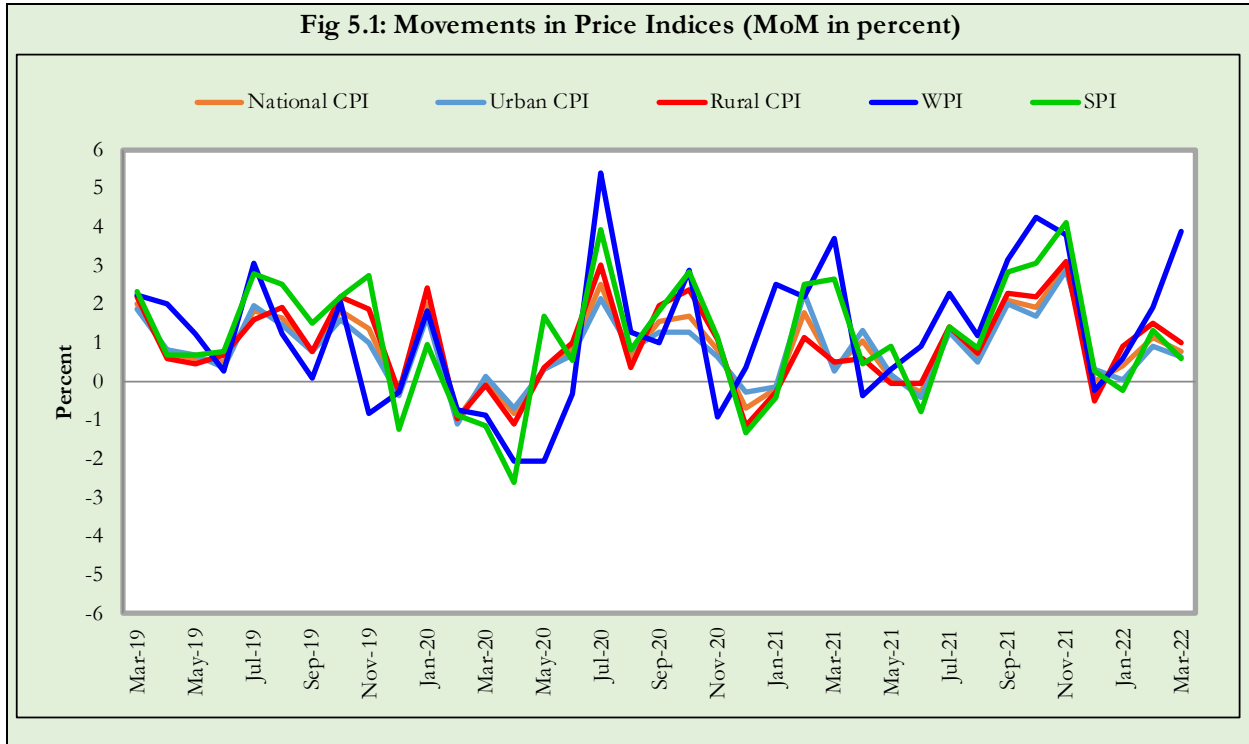
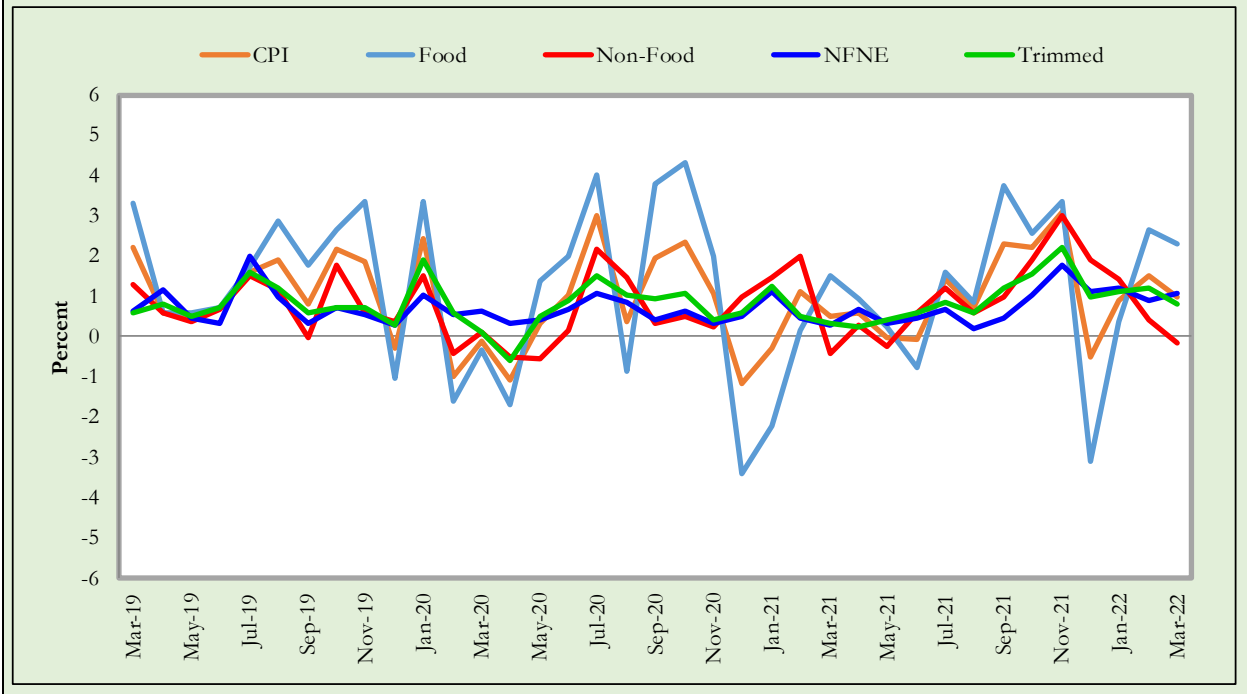
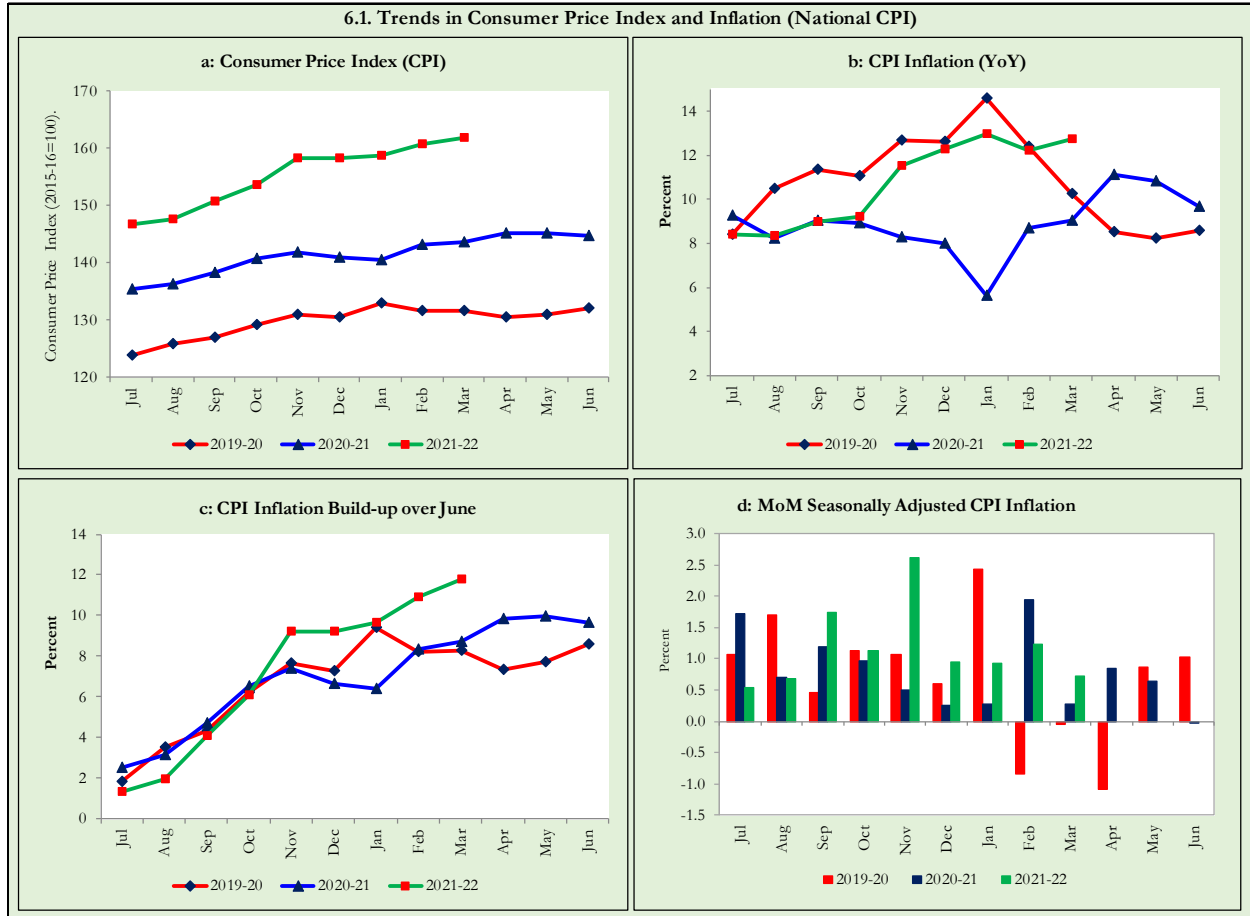


Fig 5.3: Movements in Price Indices (MoM in percent) - Rural CPI Basket

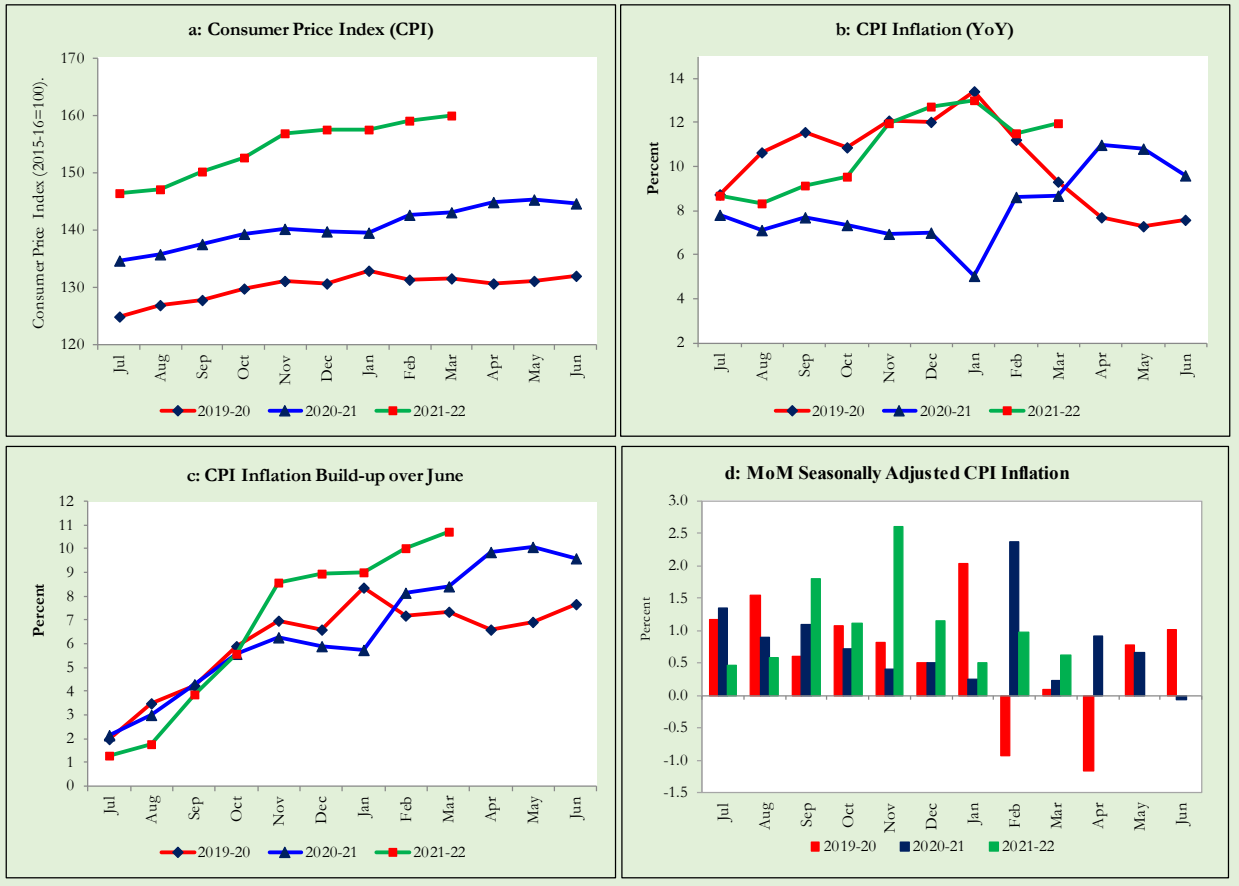


6. Trends in Consumer Price Indices and Inflation

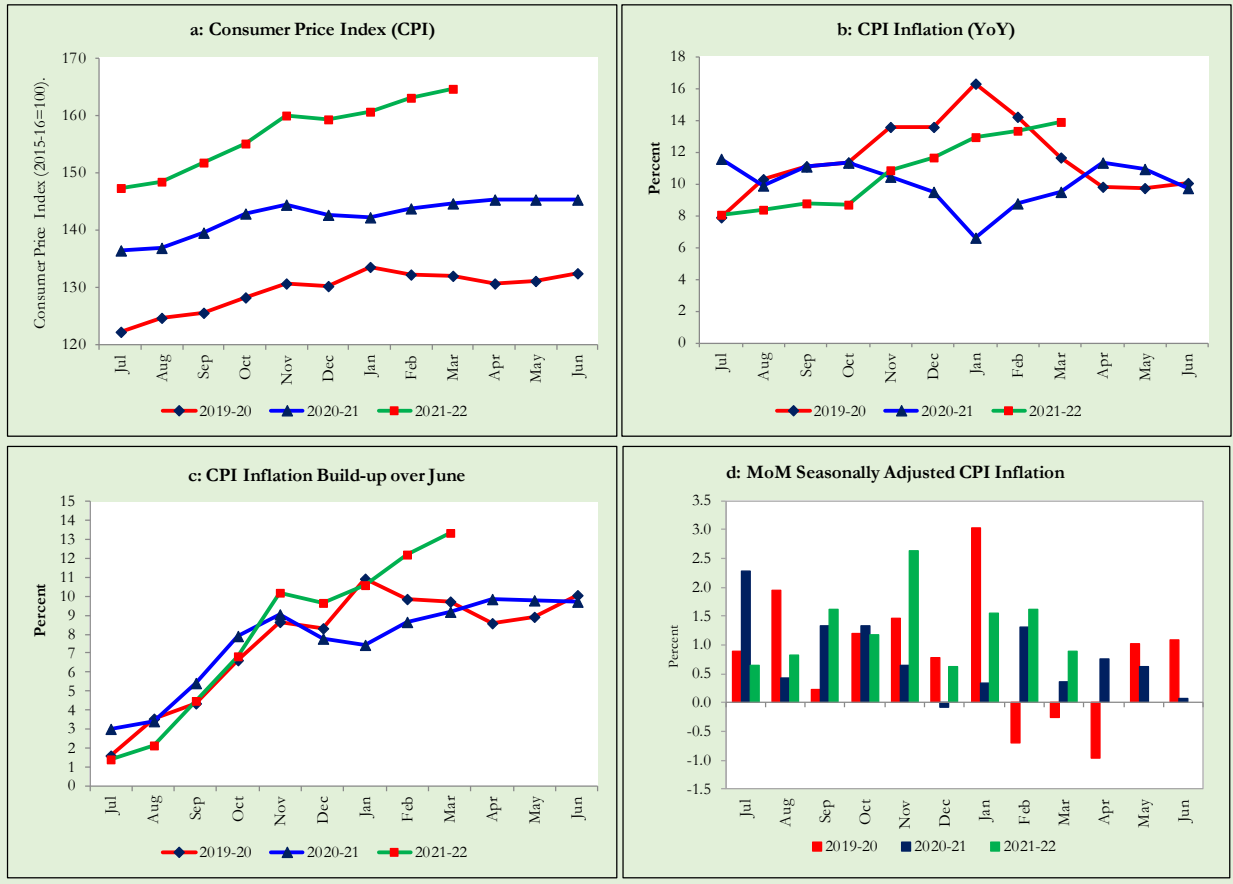
Monthly Consumer Price Indices, YoY growth rates and inflation build up over June along with seasonally adjusted (MoM) growth rates in CPI (National, Urban and Rural) is summarized in the following graphs (Figure 6.1 to 6.3).



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



6.3. Trends in Consumer Price Index and Inflation (Rural CPI Basket)



7. Weighted Contribution

The weighted contribution of food group in the overall urban CPI inflation decreased to 45.6 percent during March 2022 from 46.1 percent in previous month. It was 48.2 percent during corresponding month of last year. The weighted contribution of non-food group increased to 54.4 percent in March 2022 from 54.0 percent in previous month. Weighted Contribution of non-food was 51.7 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
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	100.0	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	100.0	40.8	-5.2	46.0	59.2	17.3	41.9	28.7	13.2
Aug-21	100.0	45.7	1.0	44.7	54.3	14.3	40.0	26.4	13.6
Sep-21	100.0	44.7	-5.6	50.4	55.3	18.7	36.7	24.4	12.3
Oct-21	100.0	37.9	-5.1	43.0	62.1	25.4	36.7	24.0	12.8
Nov-21	100.0	38.6	-0.9	39.5	61.4	28.6	32.8	22.7	10.1
Dec-21	100.0	35.0	-3.4	38.5	65.0	30.8	34.2	24.6	9.5
Feb-22	100.0	38.2	2.0	36.2	61.8	28.4	33.4	24.5	8.9
Mar-22	100.0	46.1	10.9	35.2	54.0	18.7	35.3	25.5	9.8
Mar-22	100.0	45.6	8.9	36.7	54.4	15.3	39.1	29.7	9.4

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 52.6 percent during March 2022 from 51.3 percent in previous month. It was 54.4 percent during corresponding month of last year. The weighted contribution of non-food group decreased to 47.4 percent in March 2022 from 48.7 percent in previous month. Weighted contribution of non-food group was 45.5 percent during corresponding month of last year. Table 7.2 provide the historical perspective of weighted contribution of food (Perishable food, Non-Perishable food) and non-food group (Energy, Core Inflation (NFNE), NFNE excluding HRI and HRI) in the overall inflation for rural basket.

Table 7.2 Weighted Contribution (in percent) to Rural CPI Inflation (YoY)

Period	Overall CPI	Food Group			Non-Food Group				
		Food	Perishable food	Non- Perishable food	Non-food	Energy	Core Inflation (NFNE)	NFNE excl HRI	HRI
		a=(b+e)	b=(c+d)	c	d	e=(f+g)	f	g=(h+i)	h
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	51.7	59.2	27.7	31.5	25.3	6.2
Nov-21	100.0	39.2	-4.0	43.2	60.8	30.1	30.8	25.9	4.9
Dec-21	100.0	37.2	-6.9	44.1	62.8	31.2	31.6	27.0	4.6
Feb-22	100.0	43.2	2.7	40.5	56.8	27.7	29.1	25.3	3.8
Mar-22	100.0	51.3	12.4	38.9	48.7	19.2	29.5	25.8	3.6
Mar-22	100.0	52.6	11.2	41.5	47.4	16.7	30.7	27.2	3.5

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	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Feb-22	Mar-22	Mar-22
General	56.2	43.3	42.1	47.2	52.2	51.7	57.6	60.1	70.2	63.2	57.6	60.1	60.1
Food & Non-Alcoholic Beverages	54.4	24.4	28.9	30.0	38.9	40.0	55.6	41.1	42.2	34.4	40.0	46.7	34.4
Alcoholic Beverages & Tobacco	33.3	33.3	66.7	33.3	0.0	0.0	33.3	33.3	33.3	33.3	66.7	33.3	33.3
Clothing & Footwear	70.0	67.5	55.0	47.5	47.5	45.0	50.0	55.0	80.0	85.0	77.5	77.5	70.0
Housing, Water, Elect, Gas & other Fuels	17.2	20.7	-6.9	27.6	58.6	41.4	58.6	72.4	72.4	69.0	13.8	3.4	10.3
Furnishing & Household Equip. Maintenance etc.	92.9	73.8	81.0	71.4	83.3	78.6	83.3	88.1	90.5	88.1	88.1	90.5	90.5
Health	87.1	77.4	61.3	64.5	54.8	74.2	54.8	51.6	64.5	90.3	71.0	87.1	77.4
Transport	28.1	18.8	25.0	31.3	37.5	46.9	40.6	50.0	93.8	53.1	62.5	62.5	59.4
Communication	20.0	40.0	0.0	20.0	60.0	20.0	20.0	20.0	0.0	20.0	40.0	20.0	20.0
Recreation & Culture	28.0	12.0	24.0	64.0	68.0	56.0	48.0	72.0	68.0	24.0	36.0	36.0	68.0
Education	0.0	31.3	0.0	25.0	25.0	25.0	25.0	56.3	81.3	68.8	31.3	37.5	75.0
Restaurant & Hotels	85.7	57.1	85.7	71.4	71.4	57.1	64.3	85.7	85.7	100.0	78.6	92.9	78.6
Miscellaneous	75.9	65.5	79.3	75.9	58.6	69.0	89.7	82.8	96.6	86.2	89.7	86.2	100.0
NFNE	63.0	57.0	51.1	54.9	57.4	56.2	59.1	66.0	80.9	75.3	67.2	69.4	76.6

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

Groups	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Feb-22	Mar-22	Mar-22
General	46.7	35.2	32.0	43.9	44.3	41.0	54.1	66.8	61.9	56.1	57.4	59.4	52.0
Food & Non-Alcoholic Beverages	54.4	15.2	13.9	20.3	29.1	27.8	41.8	49.4	29.1	21.5	44.3	45.6	41.8
Alcoholic Beverages & Tobacco	-20.0	40.0	60.0	60.0	-20.0	0.0	40.0	80.0	40.0	80.0	60.0	100.0	0.0
Clothing & Footwear	81.5	55.6	74.1	44.4	55.6	25.9	74.1	81.5	96.3	96.3	70.4	92.6	74.1
Housing, Water, Elect, Gas & other Fuels	-17.4	17.4	-13.0	39.1	73.9	60.9	65.2	91.3	87.0	73.9	17.4	4.3	0.0
Furnishing & Household Equip. Maintenance etc.	88.5	61.5	61.5	76.9	80.8	61.5	57.7	84.6	88.5	96.2	92.3	92.3	84.6
Health	57.1	64.3	42.9	78.6	14.3	64.3	42.9	57.1	71.4	78.6	64.3	78.6	42.9
Transport	31.3	18.8	37.5	68.8	62.5	43.8	62.5	68.8	81.3	43.8	62.5	62.5	37.5
Communication	20.0	20.0	0.0	20.0	40.0	20.0	0.0	20.0	0.0	20.0	20.0	20.0	20.0
Recreation & Culture	23.1	30.8	23.1	38.5	30.8	53.8	53.8	61.5	53.8	15.4	38.5	53.8	69.2
Education	0.0	80.0	0.0	60.0	80.0	60.0	0.0	20.0	0.0	20.0	60.0	80.0	80.0
Restaurant & Hotels	21.4	42.9	57.1	28.6	28.6	28.6	64.3	78.6	85.7	85.7	78.6	57.1	78.6
Miscellaneous	64.7	58.8	47.1	70.6	41.2	58.8	88.2	88.2	88.2	82.4	94.1	76.5	88.2
NFNE	53.7	55.9	46.3	59.6	53.7	47.8	57.4	71.3	75.0	72.1	67.6	71.3	66.9

9. Domestic Commodity Prices

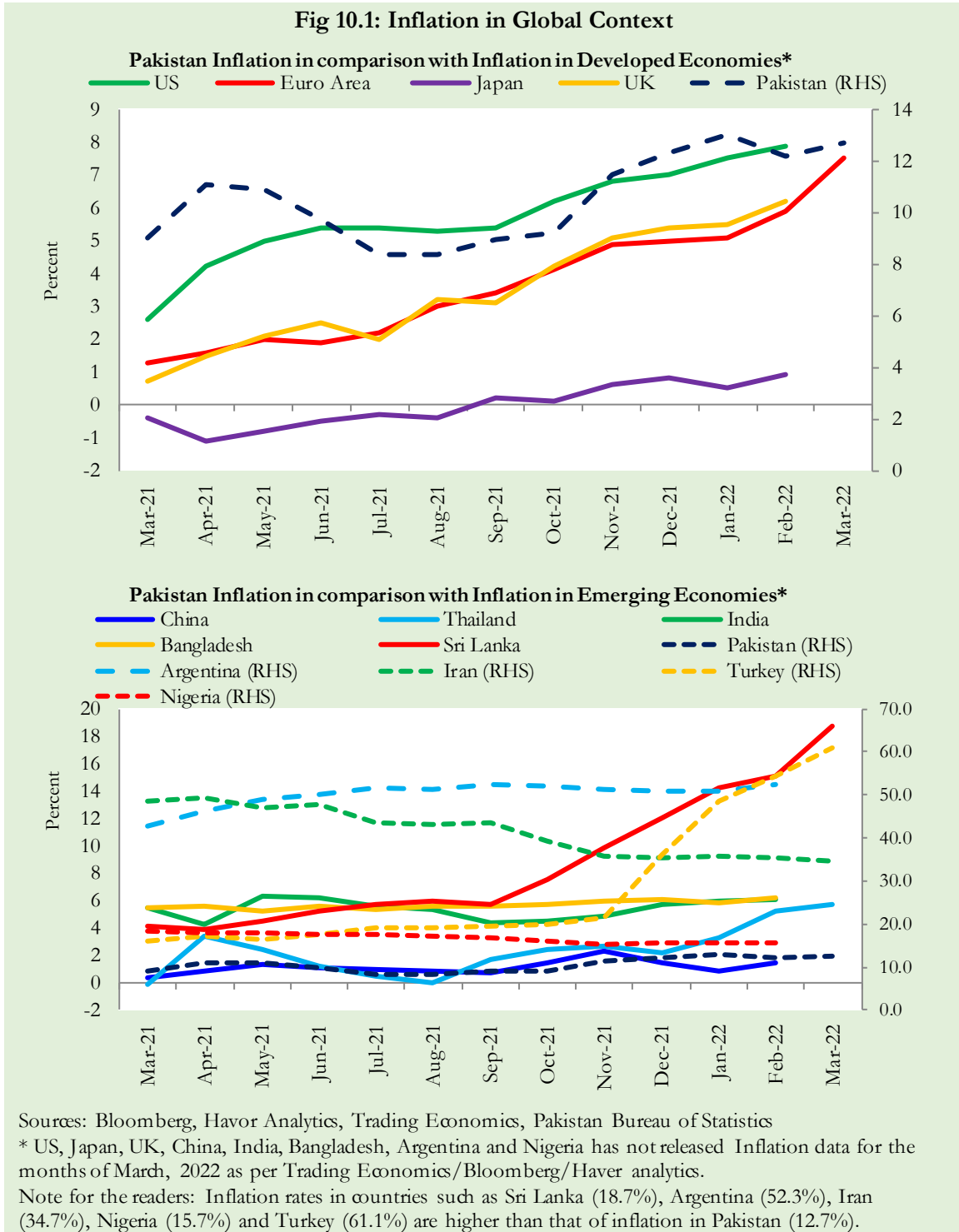
Inflation in domestic food commodities (YoY and MoM in percent) for selected essential food items covering both urban and rural CPI baskets is given in table 9.1.

S. No	Item	Unit	Urban CPI		Rural CPI	
			YoY	MoM	YoY	MoM
1	Wheat	10 Kg	35.2	0.0	32.5	-0.3
2	Wheat Flour Bag	20 Kg	13.8	0.6	19.2	0.3
3	Rice Basmati Broken (Superior/Average Quality) *	1 Kg	2.2	0.2	14.6	0.5
4	Beef with Bone (Average Quality)	1 Kg	9.5	0.7	9.4	0.1
5	Mutton (Average Quality)	1 Kg	10.5	0.8	10.9	0.9
6	Chicken Farm Broiler (Live)	1 Kg	40.7	6.6	50.1	12.2
7	Milk Fresh (Un-Boiled)	1 Liter	14.6	0.8	7.8	0.2
8	Eggs Farm	Dozen	64.6	13.0	61.3	15.0
9	Vegetable Ghee Dalda/Habib Or Other Superior Quality 1 Kg Pouch	Each	18.2	0.1	19.0	0.8
10	Pulse Masoor (Washed)	1 Kg	14.9	0.5	15.9	2.2
11	Pulse Moong (Washed)	1 Kg	4.4	1.3	2.7	0.7
12	Pulse Mash (Washed)	1 Kg	19.5	4.6	15.0	2.5
13	Pulse Gram	1 Kg	3.7	4.4	3.8	3.9
14	Potatoes	1 Kg	-6.6	9.9	-6.7	11.6
15	Onions	1 Kg	-49.2	-2.4	-50.5	0.0
16	Tomatoes	1 Kg	-3.8	4.7	-3.0	-6.1
17	Sugar Refined	1 Kg	23.5	4.8	22.7	5.8
18	Garlic (Lehsun)	1 Kg	-42.6	-24.7	-43.7	-8.9
19	Ginger (Adrak)	500 Gm	-17.7	-4.9	-13.1	-10.2
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

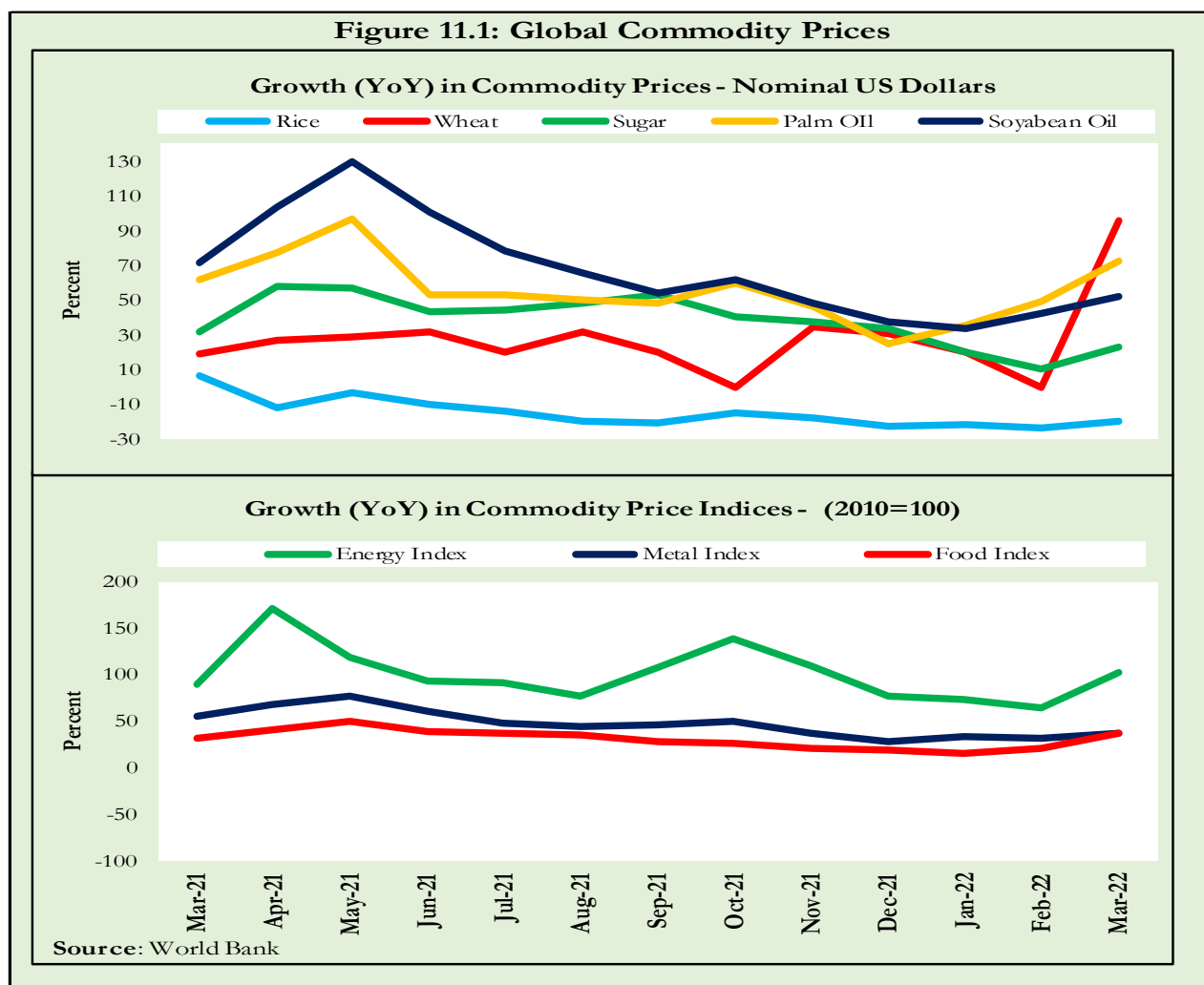
In global context, Pakistan’s inflation in comparison with inflation in selected developed and emerging economies is given in figure 10.1.



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	Mar-21		Mar-22		Mar-22	
	YoY	MoM	YoY	MoM	YoY	MoM
Food	31.0	-1.1	21.0	5.7	36.6	11.6
Metals	54.7	3.8	32.3	4.3	37.5	7.9
Energy	89.7	0.7	63.6	7.8	101.6	24.1
Agricultural	24.8	-0.8	18.4	4.5	28.1	7.2
Cotton	35.1	-1.4	49.2	4.8	54.3	2.0



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 March 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 February 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

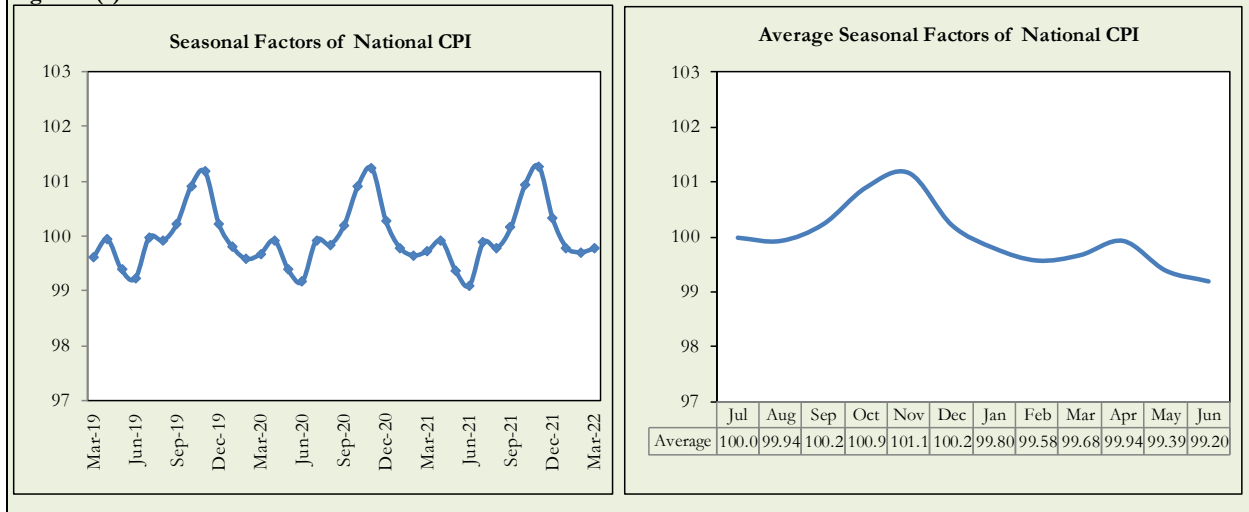


Fig. 12.1 (b): Seasonal Factor of Urban CPI

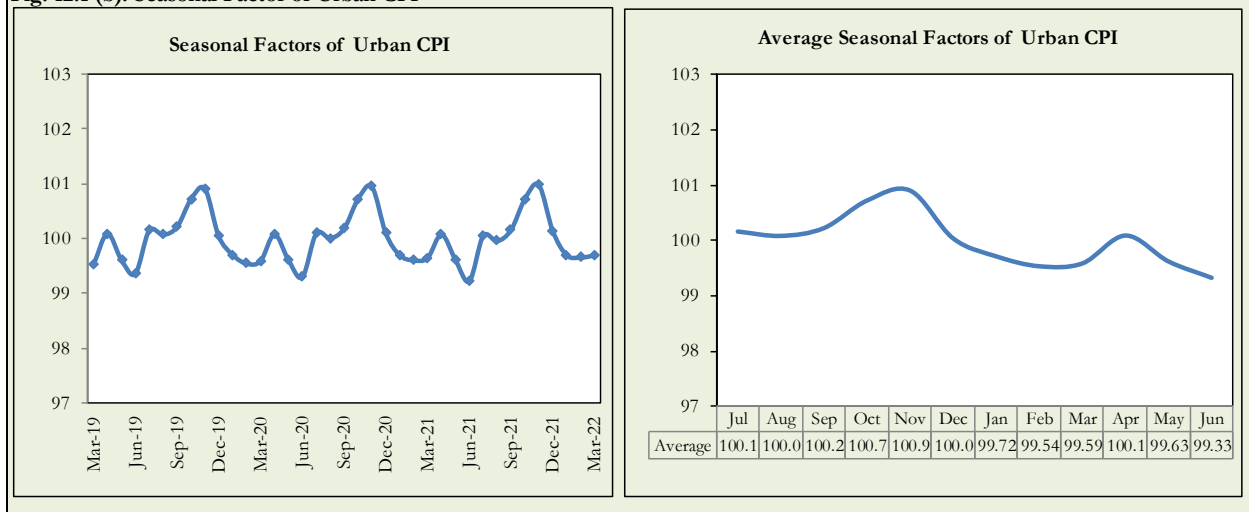
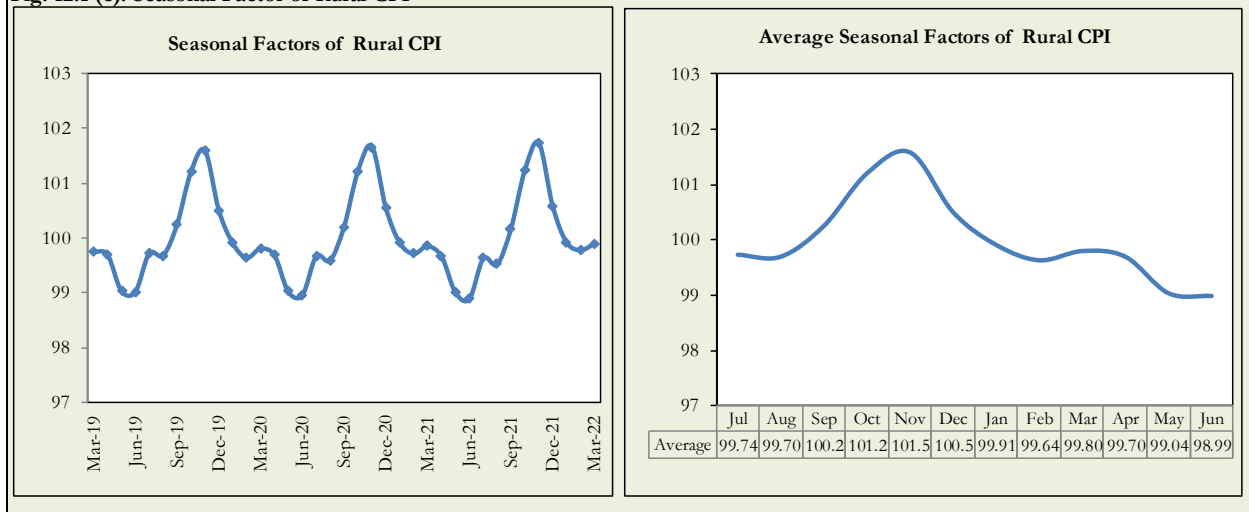


Fig. 12.1 (c): Seasonal Factor of Rural CPI



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

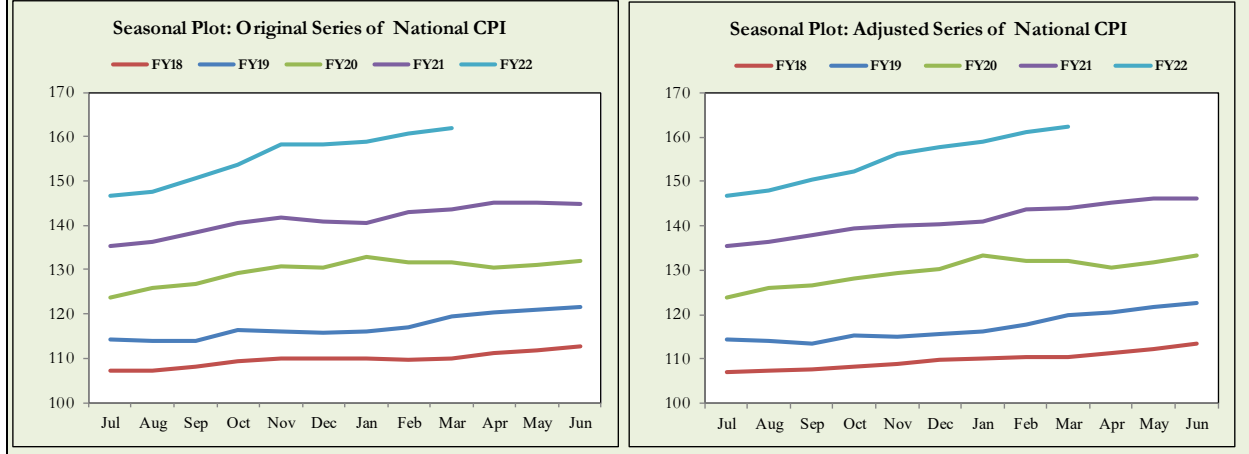


Fig. 12.2 (b): Seasonal Plot of Urban CPI

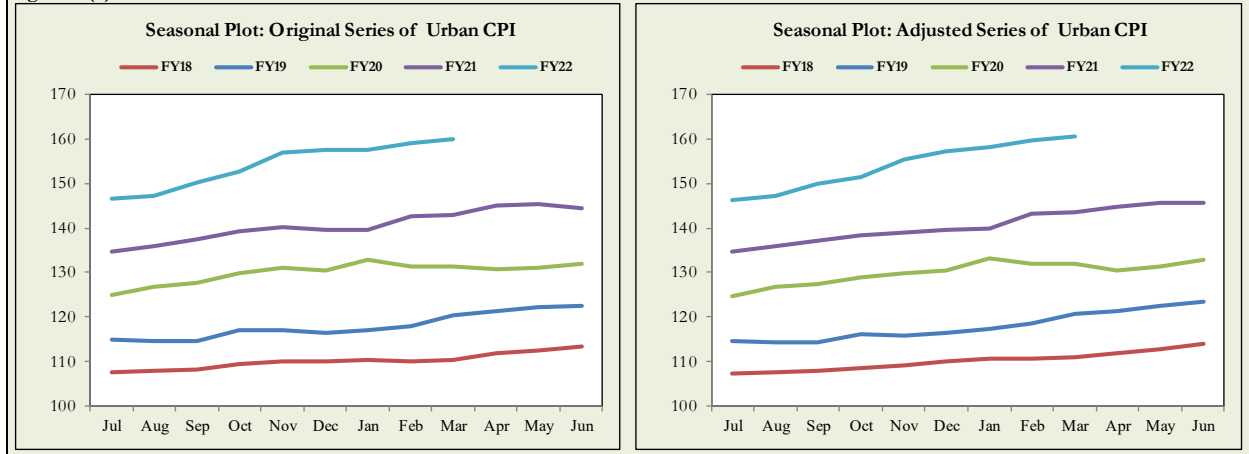
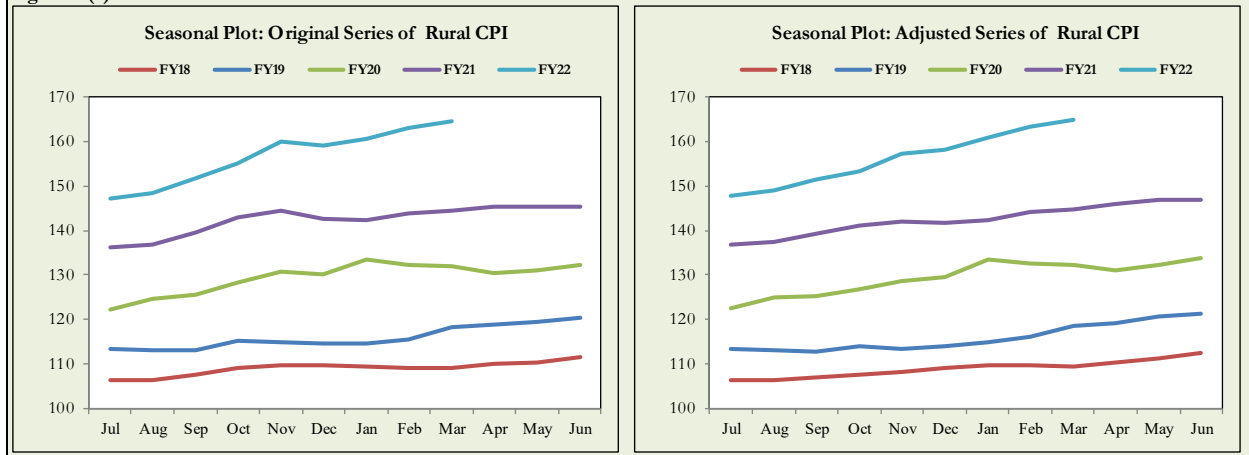


Fig. 12.2 (c): Seasonal Plot of Rural CPI



Seasonally adjusted Index of National CPI for March 2022 stood at 162.23 against 161.88 in original series showing an increase of 0.35 because of seasonal adjustment.

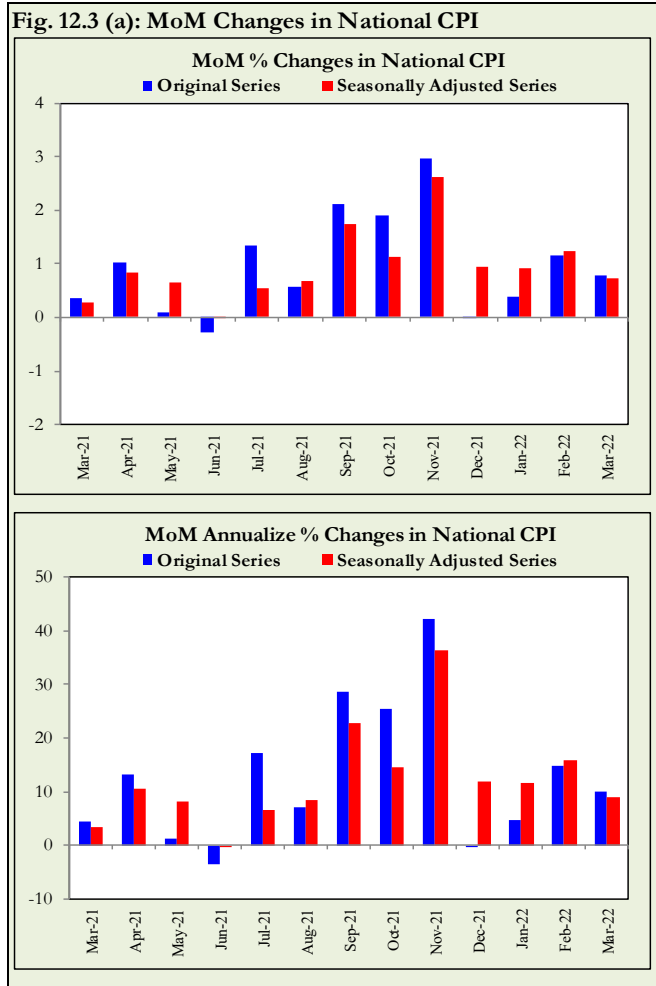
Seasonally adjusted Index of Urban CPI for March 2022 stood at 160.55 against 160.07 in original series showing an increase of 0.48 on account of seasonal adjustment.

Seasonally adjusted Index of Rural CPI for March 2022 stood at 164.78 against 164.62 in original series showing an increase of 0.16 on account of seasonal adjustment.

Month-on-month change of seasonally adjusted National CPI series stood at 0.72% reflecting a decrease during March 2022 over previous month and a decrease of 0.79% in original series.

Month-on-month change of seasonally adjusted Urban CPI series stood at 0.61% reflecting an increase during March 2022 over previous month and an decrease of 0.65% in original series.

Month-on-month change of seasonally adjusted Rural CPI series stood at 0.88% reflecting an increase during March 2022 over previous month and an decrease of 1.00% 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

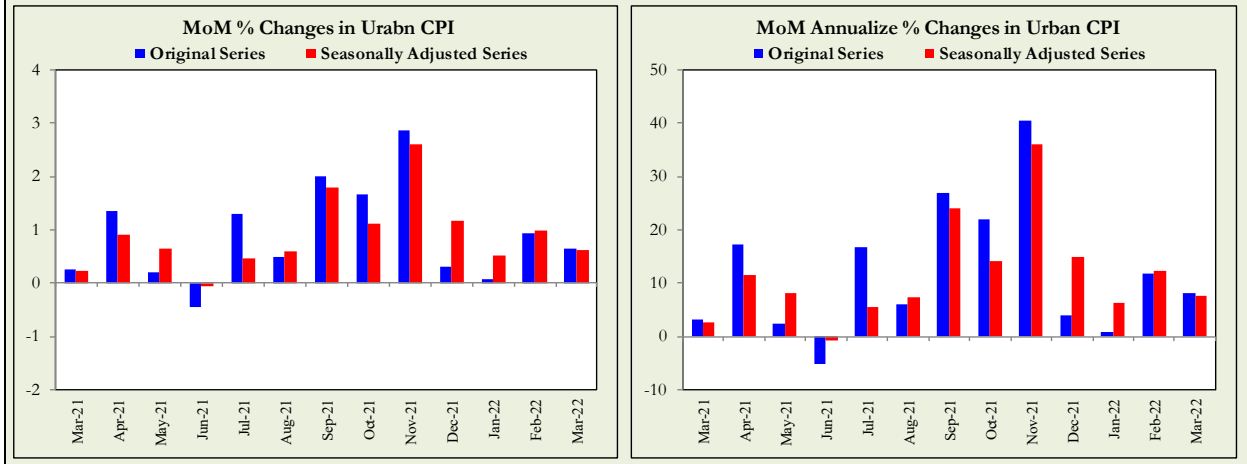
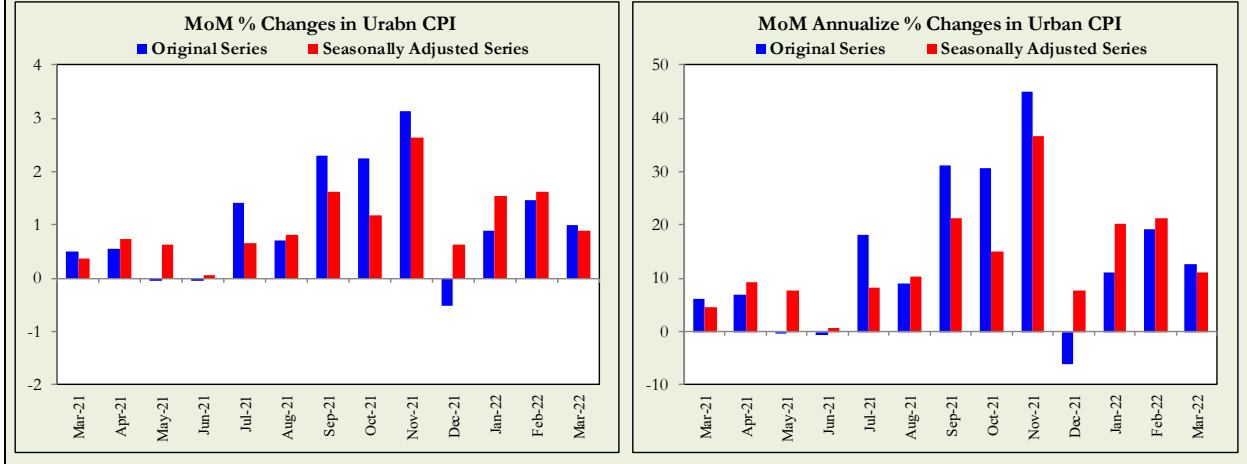


Fig. 12.3 (c): MoM % Changes in Rural CPI



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													
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
Feb-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
Mar-22	12.2	11.5	13.3	14.3	14.6	9.9	12.2	23.6	18.1	7.8	9.4	9.8	11.3
Mar-22	12.7	11.9	13.9	14.5	15.5	10.4	12.5	23.8	15.8	8.9	10.3	10.5	11.7
Month-on-Month													
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	-0.03	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	-0.02	0.3	-0.5	-2.3	-3.1	2.0	1.9	-0.2	0.3	1.1	1.1	1.1	1.0
Feb-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
Mar-22	1.2	0.9	1.5	2.2	2.6	0.2	0.4	1.9	1.3	0.8	0.9	0.8	1.2
Mar-22	0.8	0.7	1.0	1.8	2.3	-0.1	-0.2	3.9	0.6	1.2	1.1	0.8	0.8

* 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		
		Mar-21	Mar-22	Mar-22	Mar-21	Mar-22	Mar-22
Food & Non-Alcoholic	34.6	1.8	2.5	2.3	11.6	14.7	15.3
Alcoholic Beverages & Tobacco	1.0	0.3	0.3	0.0	5.9	2.1	1.8
Clothing & Footwear	8.6	1.0	1.0	1.0	10.7	9.7	9.7
Housing, Water, Elec, Gas & other Fuels	23.6	-1.7	-1.6	-2.3	8.8	9.0	8.3
Furnishing & Household Equip. Maintenance etc	4.1	1.0	1.8	1.4	8.9	13.4	13.8
Health	2.8	0.7	2.1	0.6	8.8	10.1	10.0
Transport	5.9	-0.7	3.6	0.3	2.9	25.0	26.3
Communication	2.2	0.0	0.0	0.0	0.6	2.5	2.6
Recreation & Culture	1.6	0.3	0.5	1.3	4.6	8.2	9.3
Education	3.8	0.0	0.3	4.7	1.0	3.4	8.3
Restaurants & Hotels	6.9	0.7	1.7	0.9	8.1	14.4	14.6
Miscellaneous	4.9	-0.5	1.1	1.6	10.6	10.1	12.4
Overall National CPI	100.0	0.4	1.2	0.8	9.1	12.2	12.7

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

Groups	Weights	MoM change			YoY change		
		Mar-21	Mar-22	Mar-22	Mar-21	Mar-22	Mar-22
I. Food Group	36.8	1.7	2.2	1.8	11.5	14.3	14.5
Food & Non-Alcoholic Beverages	30.4	1.8	2.3	2.1	11.9	14.5	14.8
Alcoholic Beverages & Tobacco	0.9	0.6	0.2	0.1	6.9	2.0	1.5
Restaurant & Hotels (Food)	5.5	1.4	2.4	0.8	10.2	15.6	15.0
II. Non-Food Group	63.2	-0.6	0.2	-0.1	7.1	9.9	10.4
Clothing & Footwear	8.0	0.8	1.3	0.9	11.5	9.4	9.6
Housing, Water, Elec, Gas & other Fuels	27.0	-1.6	-1.6	-2.2	8.2	7.8	7.1
Furnishing & Household Equip. Maintenance etc	4.1	0.9	2.0	1.1	7.9	12.4	12.6
Health	2.3	1.1	1.6	0.9	8.9	10.2	10.0
Transport	6.1	-0.7	3.4	0.5	3.2	24.8	26.3
Communication	2.4	0.0	0.0	0.0	0.7	3.3	3.3
Recreation & Culture	1.7	0.3	0.2	0.9	3.3	8.0	8.7
Education	4.9	0.0	0.1	5.7	0.9	3.2	9.0
Restaurants & Hotels (Non-food Component)	1.9	0.3	0.9	0.3	3.2	13.0	13.0
Miscellaneous	4.8	-0.3	1.2	1.8	10.3	9.6	11.9
Overall Urban CPI	100.0	0.3	0.9	0.7	8.7	11.5	11.9

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

Groups	Weights	MoM Change			YoY Change		
		Mar-21	Mar-22	Mar-22	Mar-21	Mar-22	Mar-22
I. Food Group	45.9	1.5	2.6	2.3	11.1	14.6	15.5
Food and Non-Alcoholic Beverages	40.9	1.7	2.8	2.5	11.2	15.0	15.9
Alcoholic Beverages, Tobacco	1.3	0.0	0.3	0.0	4.8	2.3	2.3
Restaurants and Hotels (Food Component)	3.8	0.1	1.5	1.1	11.9	14.1	15.3
II. Non-Food Group	54.1	-0.4	0.4	-0.2	8.1	12.2	12.5
Clothing and Footwear	9.5	1.3	0.6	1.1	9.7	10.0	9.8
Housing, Water, Elec., Gas and Other Fuels	18.5	-1.8	-1.4	-2.3	10.1	11.6	11.1
Furnishing and Household Equip. Maintenance	4.1	1.2	1.3	1.7	10.3	15.0	15.6
Health	3.5	0.3	2.5	0.2	8.8	10.0	10.0
Transport	5.6	-0.6	3.9	0.0	2.4	25.4	26.2
Communication	2.0	0.0	0.0	0.1	0.4	1.1	1.1
Recreation and Culture	1.4	0.2	1.2	2.0	7.0	8.5	10.5
Education	2.1	0.0	0.8	1.1	1.5	4.4	5.6
Restaurants and Hotels (Non-Food Component)	2.4	0.0	0.0	1.3	0.6	11.9	13.4
Miscellaneous	5.0	-0.7	0.8	1.4	11.1	10.7	13.1
Rural CPI	100.0	0.5	1.5	1.0	9.5	13.3	13.9

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

Items/Contributors	Weights	YoY Change		Weighted Contribution (%)	
		Mar-21	Mar-22		
A. Ranked by Weighted Contribution					
1	Motor Fuel	2.91	0.98	36.98	9.66
2	House Rent	19.26	4.77	6.13	9.39
3	Readymade Food	5.52	10.15	15.02	6.90
4	Milk Fresh	7.11	14.43	11.66	6.75
5	Vegetable Ghee	1.03	17.46	49.56	5.35
6	Cooking Oil	1.10	15.25	48.05	5.25
7	Meat	2.04	9.91	23.68	4.46
8	Education	4.88	0.88	8.98	3.75
9	Fresh Vegetables	1.53	-17.29	34.92	3.73
10	Fresh Fruits	1.44	-0.28	32.00	3.51
Total		46.82			58.75
B. Ranked by Percentage Change					
1	Tomatoes	0.35	-3.79	148.65	2.21
2	Liquefied Hydrocarbons	0.51	-11.01	78.88	3.42
3	Mustard Oil	0.01	22.94	59.91	0.07
4	Vegetable Ghee	1.03	17.46	49.56	5.35
5	Cooking Oil	1.10	15.25	48.05	5.25
6	Pulse Masoor	0.16	14.87	38.32	0.39
7	Motor Fuel	2.91	0.98	36.98	9.66
8	Fresh Vegetables	1.53	-17.29	34.92	3.73
9	Fresh Fruits	1.44	-0.28	32.00	3.51
10	Gram Whole	0.09	0.00	25.37	0.17
Total		9.13			33.76
C. Ranked by Weights					
1	House Rent	19.26	4.77	6.13	9.39
2	Milk Fresh	7.11	14.43	11.66	6.75
3	Readymade Food	5.52	10.15	15.02	6.90
4	Education	4.88	0.88	8.98	3.75
5	Electricity Charges	4.56	31.54	4.83	1.83
6	Wheat Flour	3.01	18.94	12.18	2.98
7	Appliances/Articles/Products For Personal	2.98	10.39	9.86	2.42
8	Motor Fuel	2.91	0.98	36.98	9.66
9	Cotton Cloth	2.22	15.82	10.90	2.12
10	Meat	2.04	9.91	23.68	4.46
Total		54.49			50.26

Note: Weighted contribution is estimated by multiplying the weights by the price change of an item; this is then reported as a share in YoY change in Urban CPI, which is 11.9 percent in March 2022.

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

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Feb-22	Mar-22		
A. Ranked by Weighted Contribution					
1	Chicken	1.36	11.61	33.63	68.17
2	Education	4.88	0.12	5.65	39.98
3	Fresh Fruits	1.44	7.32	15.17	31.32
4	Vegetable Ghee	1.03	2.68	8.32	20.37
5	Milk Fresh	7.11	0.14	1.52	15.92
6	Transport Services	1.75	2.63	5.69	13.74
7	Cooking Oil	1.10	2.27	5.05	12.76
8	Liquefied Hydrocarbons	0.51	-3.16	7.79	9.22
9	Readymade Food	5.52	2.42	0.84	7.22
10	Personal Effects N.E.C.	0.94	0.25	3.53	6.90
Total		25.64			225.60
B. Ranked by Percentage Change					
1	Chicken	1.36	11.61	33.63	68.17
2	Fresh Fruits	1.44	7.32	15.17	31.32
3	Mustard Oil	0.01	6.04	8.73	0.23
4	Vegetable Ghee	1.03	2.68	8.32	20.37
5	Butter	0.09	0.36	7.80	1.45
6	Liquefied Hydrocarbons	0.51	-3.16	7.79	9.22
7	Milk Powder	0.31	1.03	7.07	3.08
8	Onions	0.59	-8.81	7.01	3.37
9	Transport Services	1.75	2.63	5.69	13.74
10	Education	4.88	0.12	5.65	39.98
Total		11.97			190.93
C. Ranked by Weights					
1	House Rent	19.26	0.00	0.00	0.00
2	Milk Fresh	7.11	0.14	1.52	15.92
3	Readymade Food	5.52	2.42	0.84	7.22
4	Education	4.88	0.12	5.65	39.98
5	Electricity Charges	4.56	-7.76	-13.40	-100.98
6	Wheat Flour	3.01	-0.40	-1.08	-4.95
7	Appliances/Articles/Products For	2.98	0.86	1.36	5.96
8	Motor Fuel	2.91	4.24	-1.95	-11.72
9	Cotton Cloth	2.22	3.67	1.42	4.96
10	Meat	2.04	1.25	0.81	3.06
Total		54.49			-40.55

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 0.7 percent in March 2022.

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

Items/ Contributors	Weights	YoY Change		Weighted Contribution (%)	
		Mar-21	Mar-22		
A. Ranked by Weighted Contribution					
1	Motor Fuel	2.91	0.98	36.98	9.66
2	House Rent	19.26	4.77	6.13	9.39
3	Readymade Food	5.52	10.15	15.02	6.90
4	Milk Fresh	7.11	14.43	11.66	6.75
5	Vegetable Ghee	1.03	17.46	49.56	5.35
6	Cooking Oil	1.10	15.25	48.05	5.25
7	Meat	2.04	9.91	23.68	4.46
8	Education	4.88	0.88	8.98	3.75
9	Fresh Vegetables	1.53	-17.29	34.92	3.73
10	Fresh Fruits	1.44	-0.28	32.00	3.51
11	Liquefied Hydrocarbons	0.51	-11.01	78.88	3.42
12	Wheat Flour	3.01	18.94	12.18	2.98
13	Chicken	1.36	40.73	19.59	2.70
14	Transport Services	1.75	5.47	19.06	2.49
15	Appliances/Articles/Products For	2.98	10.39	9.86	2.42
Total		56.43			72.76
Bottom 15 Contributors					
1	Condiments And Spices	1.33	28.65	-15.41	-2.50
2	Eggs	0.51	64.62	-20.32	-1.16
3	Sugar	1.11	23.47	-10.70	-1.10
4	Potatoes	0.45	-5.80	-9.49	-0.41
5	Pulse Moong	0.17	4.37	-27.11	-0.40
6	Newspapers	0.07	0.00	0.00	0.00
7	Gas Charges	1.08	0.00	0.00	0.00
8	Cigarettes	0.72	4.70	0.02	0.00
9	Therapeutic Appliances	0.01	8.70	5.44	0.00
10	Postal Services	0.02	9.66	2.09	0.00
11	Dental Services	0.02	8.00	5.65	0.01
12	Major Tools & Equipments	0.01	14.64	10.28	0.01
13	Carpets	0.03	1.91	7.64	0.02
14	Dessert Preparation	0.04	8.98	7.04	0.02
15	Motor Vehicle Tax	0.05	0.00	7.62	0.03
Total		5.62			-5.48

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

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Feb-22	Mar-22		
A. Ranked by Weighted Contribution					
1	Chicken	1.36	11.61	33.63	68.17
2	Education	4.88	0.12	5.65	39.98
3	Fresh Fruits	1.44	7.32	15.17	31.32
4	Vegetable Ghee	1.03	2.68	8.32	20.37
5	Milk Fresh	7.11	0.14	1.52	15.92
6	Transport Services	1.75	2.63	5.69	13.74
7	Cooking Oil	1.10	2.27	5.05	12.76
8	Liquefied Hydrocarbons	0.51	-3.16	7.79	9.22
9	Readymade Food	5.52	2.42	0.84	7.22
10	Personal Effects N.E.C.	0.94	0.25	3.53	6.90
11	Appliances/Articles/Products For	2.98	0.86	1.36	5.96
12	Cotton Cloth	2.22	3.67	1.42	4.96
13	Woolen Cloth	0.84	0.12	3.14	3.76
14	Onions	0.59	-8.81	7.01	3.37
15	Milk Powder	0.31	1.03	7.07	3.08
Total		32.58			246.73
Bottom 15 Contributors					
1	Electricity Charges	4.56	-7.76	-13.40	-100.98
2	Tomatoes	0.35	191.72	-36.53	-35.02
3	Eggs	0.51	-11.82	-14.75	-12.97
4	Motor Fuel	2.91	4.24	-1.95	-11.72
5	Condiments And Spices	1.33	-6.47	-2.38	-5.49
6	Wheat	0.61	1.10	-4.89	-5.35
7	Wheat Flour	3.01	-0.40	-1.08	-4.95
8	Potatoes	0.45	-9.68	-3.68	-2.45
9	Sugar	1.11	-3.96	-1.02	-1.55
10	Fresh Vegetables	1.53	10.69	-0.29	-0.69
11	Fish	0.39	3.31	-0.76	-0.35
12	Pulse Moong	0.17	-0.74	-0.70	-0.13
13	Gur	0.04	0.19	-1.10	-0.07
14	Solid Fuel	0.42	1.56	-0.09	-0.05
15	Pulse Gram	0.17	2.88	-0.09	-0.02
Total		17.56			-181.79

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

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Feb-22	Mar-22		
A. Ranked by Weighted Contribution					
1	Chicken	1.36	11.61	33.63	68.17
2	Fresh fruits	1.44	7.32	15.17	31.32
3	Vegetable ghee	1.03	2.68	8.32	20.37
4	Milk fresh	7.11	0.14	1.52	15.92
5	Cooking oil	1.10	2.27	5.05	12.76
6	Readymade food	5.52	2.42	0.84	7.22
7	Onions	0.59	-8.81	7.01	3.37
8	Milk powder	0.31	1.03	7.07	3.08
9	Meat	2.04	1.25	0.81	3.06
10	Tea	0.84	1.71	1.92	2.42
11	Beverages	0.89	2.04	1.32	1.56
12	Butter	0.09	0.36	7.80	1.45
13	Rice	1.18	1.80	0.69	1.24
14	Sweetmeat	0.35	0.39	1.45	0.90
15	Milk products	0.64	0.40	0.87	0.84
Total		24.51			173.69
Bottom 15 Contributors					
1	Tomatoes	0.35	191.72	-36.53	-35.02
2	Eggs	0.51	-11.82	-14.75	-12.97
3	Condiments and Spices	1.33	-6.47	-2.38	-5.49
4	Wheat	0.61	1.10	-4.89	-5.35
5	Wheat flour	3.01	-0.40	-1.08	-4.95
6	Potatoes	0.45	-9.68	-3.68	-2.45
7	Sugar	1.11	-3.96	-1.02	-1.55
8	Fresh vegetables	1.53	10.69	-0.29	-0.69
9	Fish	0.39	3.31	-0.76	-0.35
10	Pulse moong	0.17	-0.74	-0.70	-0.13
11	Gur	0.04	0.19	-1.10	-0.07
12	Pulse gram	0.17	2.88	-0.09	-0.02
13	Pulse mash	0.12	0.34	-0.09	-0.01
14	Cigarettes	0.72	0.00	0.00	0.00
15	Honey	0.10	0.10	0.03	0.00
Total		10.59			-69.03

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

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Feb-22	Mar-22		
A. Ranked by Weighted Contribution					
1	Education	4.88	0.12	5.65	39.98
2	Transport services	1.75	2.63	5.69	13.74
3	Liquefied Hydrocarbons	0.51	-3.16	7.79	9.22
4	Personal Effects n.e.c.	0.94	0.25	3.53	6.90
5	Appliances/Articles/Products for	2.98	0.86	1.36	5.96
6	Cotton cloth	2.22	3.67	1.42	4.96
7	Woolen cloth	0.84	0.12	3.14	3.76
8	Drugs and medicines	1.07	1.35	1.47	2.54
9	Household equipments	1.00	0.71	1.55	2.31
10	Motor vehicles	0.81	1.79	1.76	2.29
11	Washing soap/detergents/match	1.41	2.21	1.01	2.24
12	Furniture and furnishing	0.48	0.33	2.53	1.74
13	Construction input items	0.38	0.34	2.00	1.20
14	Tailoring	1.07	0.11	0.57	0.91
15	stationery	0.35	0.75	1.83	0.89
Total		20.69			98.65
Bottom 15 Contributors					
1	Electricity charges	4.56	-7.76	-13.40	-100.98
2	Motor fuel	2.91	4.24	-1.95	-11.72
3	Solid Fuel	0.42	1.56	-0.09	-0.05
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	Postal services	0.02	0.00	0.00	0.00
9	House rent	19.26	0.00	0.00	0.00
10	Woolen readymade garments	0.43	0.08	0.00	0.00
11	Garbage collection	0.11	0.53	0.00	0.00
12	Therapeutic Appliances and	0.01	1.94	0.33	0.00
13	Dental services	0.02	3.50	0.10	0.00
14	Major tools & equipments	0.01	1.07	0.42	0.01
15	Carpets	0.03	0.26	0.16	0.01
Total		30.84			-112.74

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

Items/ Contributors	Weights	YoY Change		Weighted Contribution (%)	
		Mar-21	Mar-22		
A. Ranked by Weighted Contribution					
1	Vegetable Ghee	2.38	18.78	56.43	12.75
2	Milk Fresh	10.38	7.78	11.49	7.88
3	Motor Fuels	2.49	1.39	35.77	6.76
4	Fresh Vegetables	2.09	-22.02	45.62	5.65
5	Solid Fuel	4.48	9.38	15.07	4.75
6	Readymade Food	3.80	11.87	15.27	4.42
7	Wheat Flour	3.43	20.75	16.22	4.02
8	Liquefied Hydrocarbons	1.00	-8.84	59.03	3.97
9	Cooking Oil	0.60	20.49	63.47	3.50
10	House Rent	8.61	5.83	5.92	3.48
Total		39.26			57.18
B. Ranked by Percentage Change					
1	Tomatoes	0.51	-3.00	158.82	2.77
2	Cooking Oil	0.60	20.49	63.47	3.50
3	Liquefied Hydrocarbons	1.00	-8.84	59.03	3.97
4	Mustard Oil	0.01	21.73	57.20	0.06
5	Vegetable Ghee	2.38	18.78	56.43	12.75
6	Fresh Vegetables	2.09	-22.02	45.62	5.65
7	Fresh Fruits	1.45	-2.83	37.80	3.42
8	Pulse Masoor	0.21	15.94	37.46	0.45
9	Motor Fuels	2.49	1.39	35.77	6.76
10	Gram Whole	0.11	-0.71	33.39	0.23
Total		10.85			39.56
C. Ranked by Weights					
1	Milk Fresh	10.38	7.78	11.49	7.88
2	House Rent	8.61	5.83	5.92	3.48
3	Solid Fuel	4.48	9.38	15.07	4.75
4	Readymade Food	3.80	11.87	15.27	4.42
5	Wheat	3.47	32.53	4.98	1.50
6	Electricity Charges	3.44	31.54	4.83	1.18
7	Wheat Flour	3.43	20.75	16.22	4.02
8	Cotton Cloth	2.84	11.84	9.03	2.11
9	Motor Fuels	2.49	1.39	35.77	6.76
10	Vegetable Ghee	2.38	18.78	56.43	12.75
Total		45.32			48.85

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 13.9 percent in March 2022.

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

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Feb-22	Mar-22		
A. Ranked by Weighted Contribution					
1	Chicken	1.46	8.73	33.34	47.91
2	Vegetable Ghee	2.38	3.31	10.30	40.63
3	Fresh Fruits	1.45	6.48	16.67	21.94
4	Cooking Oil	0.60	3.74	12.35	12.21
5	Milk Fresh	10.38	0.47	1.16	10.83
6	Fresh Vegetables	2.09	10.72	4.65	9.87
7	Cotton Cloth	2.84	0.65	2.34	7.16
8	Liquefied Hydrocarbons	1.00	0.37	5.58	6.97
9	Transport Services	1.80	4.12	3.65	6.11
10	Readymade Food	3.80	1.50	1.14	4.64
Total		27.80			168.27
B. Ranked by Percentage Change					
1	Chicken	1.46	8.73	33.34	47.91
2	Fresh Fruits	1.45	6.48	16.67	21.94
3	Cooking Oil	0.60	3.74	12.35	12.21
4	Vegetable Ghee	2.38	3.31	10.30	40.63
5	Onions	0.90	-5.62	6.50	2.81
6	Liquefied Hydrocarbons	1.00	0.37	5.58	6.97
7	Mustard Oil	0.01	5.33	5.54	0.11
8	Nimco	0.08	3.40	5.03	0.36
9	Fresh Vegetables	2.09	10.72	4.65	9.87
10	Transport Services	1.80	4.12	3.65	6.11
Total		11.77			148.92
C. Ranked by Weights					
1	Milk Fresh	10.38	0.47	1.16	10.83
2	House Rent	8.61	0.00	0.00	0.00
3	Solid Fuel	4.48	0.95	-0.20	-0.88
4	Readymade Food	3.80	1.50	1.14	4.64
5	Wheat	3.47	2.93	-2.39	-9.50
6	Electricity Charges	3.44	-7.76	-13.40	-48.69
7	Wheat Flour	3.43	1.94	-1.32	-4.73
8	Cotton Cloth	2.84	0.65	2.34	7.16
9	Motor Fuels	2.49	4.67	-2.24	-7.25
10	Vegetable Ghee	2.38	3.31	10.30	40.63
Total		45.32			-7.79

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 1.0 percent in March 2022.

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

Items/ Contributors	Weights	YoY Change		Weighted Contribution (%)	
		Mar-21	Mar-22		
A. Ranked by Weighted Contribution					
1	Vegetable Ghee	2.38	18.78	56.43	12.75
2	Milk Fresh	10.38	7.78	11.49	7.88
3	Motor Fuels	2.49	1.39	35.77	6.76
4	Fresh Vegetables	2.09	-22.02	45.62	5.65
5	Solid Fuel	4.48	9.38	15.07	4.75
6	Readymade Food	3.80	11.87	15.27	4.42
7	Wheat Flour	3.43	20.75	16.22	4.02
8	Liquefied Hydrocarbons	1.00	-8.84	59.03	3.97
9	Cooking Oil	0.60	20.49	63.47	3.50
10	House Rent	8.61	5.83	5.92	3.48
11	Fresh Fruits	1.45	-2.83	37.80	3.42
12	Meat	1.71	9.84	25.19	3.40
13	Tomatoes	0.51	-3.00	158.82	2.77
14	Transport Services	1.80	3.64	23.47	2.68
15	Washing Soaps, Detergents And	1.70	11.09	19.85	2.29
Total		46.43			71.74
Bottom 15 Contributors					
1	Condiments And Spices	1.49	23.33	-14.89	-2.10
2	Sugar	2.03	22.66	-9.62	-1.54
3	Eggs	0.57	61.29	-15.05	-0.79
4	Potatoes	0.74	-6.25	-9.00	-0.56
5	Pulse Moong	0.25	2.65	-27.05	-0.54
6	Motor Vehicle Tax	0.02	0.00	-5.56	-0.01
7	Postal Services	0.01	0.00	0.00	0.00
8	Accommodation Services	0.14	0.03	0.00	0.00
9	Newspapers	0.02	2.40	0.00	0.00
10	Dessert Preparation	0.01	12.01	7.36	0.01
11	Garbage Collection	0.01	7.64	12.67	0.01
12	Dental Services	0.02	7.84	7.92	0.01
13	Water Supply	0.06	35.99	1.63	0.01
14	Cleaning And Laundering	0.02	9.99	19.28	0.02
15	Ice Cream	0.06	7.88	6.40	0.02
Total		5.45			-5.46

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

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Feb-22	Mar-22		
A. Ranked by Weighted Contribution					
1	Chicken	1.46	8.73	33.34	47.91
2	Vegetable Ghee	2.38	3.31	10.30	40.63
3	Fresh Fruits	1.45	6.48	16.67	21.94
4	Cooking Oil	0.60	3.74	12.35	12.21
5	Milk Fresh	10.38	0.47	1.16	10.83
6	Fresh Vegetables	2.09	10.72	4.65	9.87
7	Cotton Cloth	2.84	0.65	2.34	7.16
8	Liquefied Hydrocarbons	1.00	0.37	5.58	6.97
9	Transport Services	1.80	4.12	3.65	6.11
10	Readymade Food	3.80	1.50	1.14	4.64
11	Personal Effects N.E.C.	1.21	0.46	2.74	4.23
12	Washing Soaps, Detergents And	1.70	2.20	2.47	4.11
13	Onions	0.90	-5.62	6.50	2.81
14	Tea	1.26	0.37	2.33	2.71
15	Marriage Hall Charges	2.25	0.00	1.34	2.67
Total		35.12			184.80
Bottom 15 Contributors					
1	Electricity Charges	3.44	-7.76	-13.40	-48.69
2	Tomatoes	0.51	198.35	-33.87	-28.50
3	Wheat	3.47	2.93	-2.39	-9.50
4	Eggs	0.57	-11.00	-13.97	-8.86
5	Motor Fuels	2.49	4.67	-2.24	-7.25
6	Wheat Flour	3.43	1.94	-1.32	-4.73
7	Potatoes	0.74	-17.59	-3.78	-2.74
8	Drugs And Medicines	1.58	4.67	-0.94	-1.59
9	Solid Fuel	4.48	0.95	-0.20	-0.88
10	Gur	0.15	-3.00	-1.20	-0.17
11	Pulse Moong	0.25	-1.21	-0.23	-0.04
12	Motor Vehicle Tax	0.02	0.00	0.00	0.00
13	Accommodation Services	0.14	0.00	0.00	0.00
14	Newspapers	0.02	0.00	0.00	0.00
15	Postal Services	0.01	0.00	0.00	0.00
Total		21.30			-112.95

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

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Feb-22	Mar-22		
A. Ranked by Weighted Contribution					
1	Chicken	1.46	8.73	33.34	47.91
2	Vegetable ghee	2.38	3.31	10.30	40.63
3	Fresh fruits	1.45	6.48	16.67	21.94
4	Cooking oil	0.60	3.74	12.35	12.21
5	Milk fresh	10.38	0.47	1.16	10.83
6	Fresh Vegetables	2.09	10.72	4.65	9.87
7	Readymade Food	3.80	1.50	1.14	4.64
8	Onions	0.90	-5.62	6.50	2.81
9	Tea	1.26	0.37	2.33	2.71
10	Meat	1.71	2.28	1.08	2.23
11	Condiments and Spices	1.49	-1.29	0.77	1.13
12	Sweetmeat	0.40	2.26	2.26	0.90
13	Butter	0.33	3.80	2.63	0.89
14	Rice	1.55	3.27	0.43	0.82
15	Milk products	0.96	0.29	0.65	0.55
Total		30.77			160.05
Bottom 15 Contributors					
1	Tomatoes	0.51	198.35	-33.87	-28.50
2	Wheat	3.47	2.93	-2.39	-9.50
3	Eggs	0.57	-11.00	-13.97	-8.86
4	Wheat Flour	3.43	1.94	-1.32	-4.73
5	Potatoes	0.74	-17.59	-3.78	-2.74
6	Gur	0.15	-3.00	-1.20	-0.17
7	Pulse Moong	0.25	-1.21	-0.23	-0.04
8	Honey	0.03	1.48	0.00	0.00
9	Cigarettes	1.24	0.18	0.00	0.00
10	Pan Prepared	0.04	3.75	0.00	0.00
11	Pulse Mash	0.15	-0.64	0.17	0.02
12	Dessert Preparation	0.01	0.97	2.04	0.02
13	Wheat Products	0.11	1.21	0.26	0.03
14	Ice Cream	0.06	0.00	0.75	0.04
15	Pulse Gram	0.28	4.63	0.19	0.04
Total		11.03			-54.40

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

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Feb-22	Mar-22		
A. Ranked by Weighted Contribution					
1	Cotton Cloth	2.84	0.65	2.34	7.16
2	Liquefied Hydrocarbons	1.00	0.37	5.58	6.97
3	Transport Services	1.80	4.12	3.65	6.11
4	Personal Effects n.e.c.	1.21	0.46	2.74	4.23
5	Washing Soaps, Detergents and	1.70	2.20	2.47	4.11
6	Marriage Hall Charges	2.25	0.00	1.34	2.67
7	Household Equipments	1.28	0.86	1.73	2.20
8	Education	2.13	0.82	1.11	2.06
9	Construction Input Items	0.63	-0.49	3.34	1.88
10	Readymade Garments	1.13	0.58	1.74	1.87
11	Appliances/Articles/Products for	2.27	1.00	0.89	1.76
12	Doctor Clinic Fee	0.51	0.04	2.11	1.33
13	Stationery	0.37	1.76	3.35	1.20
14	Personal Grooming Services	1.54	0.93	0.72	1.19
15	Motor Vehicles	0.73	0.03	1.57	1.00
Total		21.39			45.73
Bottom 15 Contributors					
1	Electricity Charges	3.44	-7.76	-13.40	-48.69
2	Motor Fuels	2.49	4.67	-2.24	-7.25
3	Drugs and Medicines	1.58	4.67	-0.94	-1.59
4	Solid Fuel	4.48	0.95	-0.20	-0.88
5	Accommodation Services	0.14	0.00	0.00	0.00
6	Newspapers	0.02	0.00	0.00	0.00
7	Communication Services	1.65	0.00	0.00	0.00
8	Postal Services	0.01	0.00	0.00	0.00
9	Motor Vehicle Tax	0.02	0.00	0.00	0.00
10	Water Supply	0.06	0.00	0.00	0.00
11	Woolen Readymade Garments	0.54	0.00	0.00	0.00
12	House Rent	8.61	0.00	0.00	0.00
13	Garbage Collection	0.01	1.28	0.00	0.00
14	Mechanical Services	0.36	4.08	0.00	0.00
15	Major Tools and Equipments	0.03	2.02	0.13	0.00
Total		23.45			-58.40

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	Spinach (Paalak), Tinda, Chilies Powder National 200 Gm Packet, Pulse Moong (Washed), Eggs Farm, Ginger (Adrak), Sugar Refined, Potatoes, Cardamom Small (Average Quality), Cumin Seed	Turmeric Powder National 50 Gm Packet, Coriander Seed Powder National 200 Gm Packet, Cucumber (Kheera), Jam-E-Shireen Standard Size (800 MI), Pepper Black National 50 Gm Packet,	Pulse Mash (Washed), Wheat Flour (Fine/Superior Quality), Almonds (Badam) Kaghazi With Shell (Average Quality), Suji, Cold Drink (Pepsi/Coca-Cola) 1.5 Liter Bottle,	Mineral Water Nestle 1.5 Liter, Rice Basmati 385/386, Curd, Gur (Average Quality), Groundnuts (Moong Phali) With Shell, Besan, Bananas (Kela) Local, Wheat Flour Bag, Fruit Juice Small Packet 250 ML,
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, Children Shoes Power Lite Bata,	Women Shalwar Kameez (Average Quality), Full Pant Boy Length 24"/26", Dopatta Georgette (Average Quality), Awami Suit Gents Wash & Wear (Average Quality), Shoe Repair Full Sole, Tailoring Charges Pant (Men),	Lawn Printed Gul Ahmed/Al Karam, Pullover Gents Oxford/Bonanza, Brassier (Average Quality), Linen, Ladies (Average Quality), Tailoring Charges Shirt (Men), Dopatta Cotton (Average Quality), Chaddar (Wash-N-Wear) (2X2.5 Meter), Tailoring Charges Awami Suit (Male), Shirt Boy Length 24"/26", Gents Sandal	School Uniform Boys (Pant & Shirt) 24"/26", School Uniform Girls (Kameez & Shalwar) 24"/26", Tailoring Charges Simple Suit (Female), Heavy Weight Suiting Lawrance Pur (Average Quality), Pullover Ladies Oxford/Bonanza, Dry Cleaning Charges Pant Coat Both, Long Cloths 5" Gul Ahmed/Al Karam, Gents Shoes Paul Bata, Shoe Polish Charges , Underwear
Housing, Water, Elec, Gas & other Fuels	Electricity Charges 51-100 Units, Electricity Charges Upto 50 Units, Gas Charges Upto 3.3719 Mmbtu , Gas Charges 3.3719 - 6.7438 Mmbtu , Gas Charges 6.7438 - 10.1157 Mmbtu , Gas Charges 10.1157 - 13.4876 Mmbtu , Gas Charges Above 13.4876 Mmbtu,	Water Charges Per House, Electricity Charges 101-300 Units, Painter Wage Rate, Bricks New 1st Class, Electricity Charges Combined,	Charges For Refuse/Waste Collection, Cement Blocks (6"X8"X12"), House Rent Combined, Electricity Charges 301-700 Units, Sand (Black Pit), Synthetic Enamel Ici Balti 3.64 Litre, Electricity Charges Above 700	Unskilled Labor Wage Rate, Firewood Whole, Bajri, Cement (Local) 50 Kg Bag, Iron Bars (M.S. Bar) 1/2 " 40 Grade, Lpg 11.67 Kg Cylinder,
Furnishing & Household Equip. Maintenance etc		Phenyl Tyfon/Finis 2.75 Litre Bottle, Finis 400 MI Bottle, Towel Medium Size (3' X 2'), Bed Sheet Double With Two Pillow Covers (Superior Quality), Dining Table Wit Glass Top And Six Chairs (Average Quality),	Cot Iron (Charpai), Energy Saver Philips 14 Watt, Blanket Single (Sn), Sewing Machine (Sn) Without Cover, Refrigerator Dawlance/Pel 10 Cubic Feet Double Door, Bed Sheet Single (Superior Quality), Chair Plastic (Chairman) (Average	Bucket (Balti) Plastic Medium Size, Water Pump Golden Monoblock/Donkey 0.5 H.P, Air Cooler Super Asia Ecm-4000/Jc-1000, Match Box, Sofa Set Five Seater, Lota Plastic Medium Size (Average Quality), Ceiling Fan 56" Pak/Younas/Millat, Water Set (Omrocc) 6 Glasses + Jug, Dinner Set
Health	Hydriyllin Syrup 120 MI Bottle,	Sugar Test (Random/Fasting) Charges Of Both, Johar Joshanda Instant (Sachet) Packet, Daonil Tablets 5 Mg, Blood Test (Cp) Charges, Ventolin Tablets 2 Mg, Dental Surgeon Fee Per Visit, Gynecologist Fee Per Visit, Electronic Bp Checking Apparatus,	Glucometer, Ecg Charges, Flagyl Tablets 400 Mg, X-Ray (Chest) Charges, Dettol Medium Bottle, Glaxose-D 400 Gm Packet, Physiotherapist Fee Per Visit, Dental Extraction Fee, Phenergan Syrup 120 MI Bottle, Cost Of Surgery (C-	Septran Tablets, Doctor (Mbbs) Clinic Fee, Ultrasound Abdominal, Inderal Tablets 10 Mg, Betnovate-N Ointment 10 Gm Tube, Calpol Syrup 100 MI Bottle, Lederplex Syrup Bottle, Urine Test (Dr) Charges, Panadol Tablets Plain,
Transport	Car Suzuki 800 Cc Without Ac,	Train Fare Business Class Per Person, Car Toyota 1300 Cc Xli,	Mini Bus Fare Minimum Within City, Motorcycle Service Charges, Car Tax 800 Cc To 1500 Cc,	Train Fare Ac Sleeper Per Person, Bus Fare Minimum Within City, Train Fare Ac Lower Per Person, Auto Rickshaw Fare, Car Suzuki 1000 Cc, Mini Bus Fare Maximum Within City, Car Service Charges, Tire Car Mehran Tubeless (General), Taxi Four Seater Fare, Car
Communication	Mobile Call Charges,	Internet Charges (Dsl) 1 Mb (Unlimited), Courier Charges Minimum Within Zone Outside City (Tcs),	Mobile Set With Rear Camera And Without Touch Screen,	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, English Book Ba/B.Sc, Laptop Dell/Hp/Acer Core I5, Display (14"-15"),	Led Sony/Samsung 32" Colored, English Book Class Vi, Mathematics Book Class Ix And X (Text Book Board), Lead Pencil Goldfish, Ballpoint Pen Local, 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 MI Bottle, Recreational Park Charges (Minimum
Education		Government College Fee First Year, Private College Fee First Year, Government University Fee M.S.C / M.A., Coaching Fee For Class Ix/X Science Group, Coaching Fee For Class	Tuition Fee Private University M.Sc./M.A, Government Medical College/University Tuition Fee For Mbbs (1St Year),	Private School Fee English Medium Average Standard (Class V), Private School Fee English Medium Average Standard (Class I), Private School Fee English Medium Average Standard (Class Vi),
Restaurant & Hotels		Government Hostel Accommodation Fee For Intermediate College Per Student,	Pizza Chicken Medium Size (Average Quality),	Burger With Shami Kabab (Average Quality), Marriage Hall Charges With Furniture, Seekh Kabab (Beef) (Average Quality), Cooked Chicken At Average Hotel, Marriage Hall Service Charges With Food (Average Meal), Chicken Biryani
Miscellaneous		Wall Clock Quartz (Average Quality), Toilet Soap Lux 75 Gm, Lipstick Swiss Miss/Medora (Medium), Purse Ladies Medium Size (Average Quality), Face Cream Ponds Medium Size (Cold), Tooth Brush (Shield),	Artificial Jewelry (Locket Set) (Average Quality), Hair Style Charges (At Average Beauty Parlor), Tissue Paper Perfumed Box 100 Napkins, Shampoo Sun Silk/Pantene 90 MI Bottle, Suitcase Ragzine (24"X16"X6") (Average Quality),	Hair Oil (Kala Kola Hair Tonic), Hair Cut Charges For Men, Hair Removing Cream (Eu-Cream) 30MI Tube, Electric Hair Straightener (Philips), Trunk Medium Size (Average Quality), Disposable Razor Gillette Blue Ii, Shaving Cream (Touchme Large/Admiral), Blade Treet Ordinary (10

Table A17: Distribution of Price Changes (YoY) - Selected Rural CPI Items: March 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	Lady Finger (Bhindi), Arvi, Tinda, Spinach (Paalak), Brinjal, Bottlegourd (Loki), Turai, Chilies Powder Loose, Pulse Moong (Washed), Eggs Farm, Ginger (Adrak), Lemon, Sugar Refined,	Onions, Salt Powder Loose, Pulse Mash (Washed), Wheat,	Powdered Milk Nido 390 Gm Polybag, Ice Cream Walls Cup (Large Size), Gur (Average Quality), Rice Basmati 385/386, Jam-E-Shireen Standard Size (800 MI), Fruit Juice Small Packet 250 MI, Custard Powder Rafhan 300 Gm	Turmeric Powder Loose, Almonds (Badam) Kaghazi With Shell (Average Quality), Fish Fresh, Besan, Rice Basmati Broken (Average Quality), Milk Fresh (Un-Boiled), Tea Lipton Yellow Label 190 Gm Packet, Cucumber (Kheera), Rusk (Papay) (Average Quality), Groundnuts (Moong
Alcoholic Beverages & Tobacco		Cigarettes Capstan 20'S Packet, Cigarettes Gold Leaf 20'S Packet,	Chewing Tobacco (Niswar), Tobacco Hukka Twisted,	Pan Prepared (Sweet With Beetle Nuts),
Clothing & Footwear		Footware Gents Local (Average Quality),	Lawn Printed (Average Quality), Shirting (Average Quality), Tailoring Charges Awami Suit (Male), Footware Children Local (Average Quality), Tailoring Charges Simple Suit (Female), Dopatta Georgette (Average Quality), School Uniform Girls (Kameez & Shalwar) 24"/26", Chaddar (Wash-	School Uniform Boys (Pant & Shirt) 24"/26", Linen, Ladies (Average Quality), Pullover Gents (Average Quality), Full Pant Boy Length 24"/26", Vest "Baniyan" For Men Average Quality, Shoe Polish Charges, Brassier (Average Quality), Shoe Repair Full Sole, Socks Nylon Local (Average Quality), Pullover Ladies (Average Quality), Donatta Cotton (Average Quality),
Housing, Water, Elec, Gas & other Fuels	Electricity Charges 51-100 Units, Electricity Charges Upto 50 Units,	Water Charges Per House, Electricity Charges 101-300 Units, Electricity Charges Combined,	House Rent Combined, Electricity Charges 301-1000 Units, Bricks New 1St Class, Electricity Charges Above 1000 Units, Painter Wage Rate, Electrician Charges, Mason Wage Rate,	Plumber Wage Rate, Carpenter Wage Rate, Sand (Black Pit), Charges For Refuse/Waste Collection, Bajri, Unskilled Labor Wage Rate, Coal, Firewood Whole, Kerosene Oil, Cement (Local) 50 Kg Bag, Lpg 11.67 Kg Cylinder,
Furnishing & Household Equip. Maintenance etc		Cleanser Powder Vim 900 Gm Polybag,	Energy Saver Philips 14 Watt, Refrigerator Dawlance/Pel 10 Cubic Feet Double Door, Finis 400 MI Bottle, Water Cooler 9/10 Litre Plastic Super Quality, Towel Medium Size (2' X 3'), Robin Blue	Bucket (Balti) Plastic Medium Size, Blanket Single (Sn), Washing Machine With Spinner (Super Asia Or Similar Brand) (Sn), Boot Polish Cherry/Kiwi 42 MI, Water Pump Golden Monoblock/Donkey 0.5 H.P., Lota Plastic Medium Size (Average
Health		Hydriyllin Syrup 120 MI Bottle, Daonil Tablets 5 Mg, Blood Test (Cp) Charges, Cost Of Surgery (C-Section), Dettol Medium Bottle,	X-Ray (Chest) Charges, Dental Surgeon Fee Per Visit, Amoxil Capsule 250 Mg, Inderal Tablets 10 Mg, Cac 1000 Tablets Sandoz Bottle, Johar Joshanda Instant	Doctor (Mbbs) Clinic Fee, Physiotherapist Fee Per Visit, Panadol Tablets Plain,
Transport	Car Tax 800 Cc To 1500 Cc, Car Suzuki 800 Cc Without Ac,		Motorcycle Service Charges, Tire Cycle,	Tire Motorcycle Cd 70 (Back Wheel), Chingchi Rickshaw Charges, Minimum, Train Fare Economy Per Person, Bicycle, Motorcycle Honda Cd 70, Mobil Oil (Havoline 20W-50), Tire Car Mehran Tubeless (General), Hi-Speed Diesel, Air
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,	Led Sony/Samsung 32" Colored, English Books Class Xi Complete Set, English Books Class Vi,	Cable Charges, Personal Computer With Led Monitor (17") Dell/Hp/Acer Core I5, Urdu Books Class Ix And X (Text Book Board),	Exercise Book (With Lines) 80 To 100 Pages, English Books Class Ix And X, Pets Feed, Ballpoint Pen Local, Lead Pencil Goldfish, Urdu Books Class V (Text Book Board),
Education		Vocational Training Basic Computer Short Course Fee (3 Months), Private School Fee English Medium Average Standard (Class Vi),	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 D),	
Restaurant & Hotels	Government Hostel Accommodation Fee For Intermediate College Per Student, Private Hostel Accommodation Fee For Intermediate College Per Student,		Pizza Chicken Medium Size (Average Quality),	Chicken Biryani Full/Double, Chicken Roast (Full) (Average Quality), Burger With Shami Kabab (Average Quality), Marriage Hall Service Charges With Food (Average Meal), Seekh Kabab (Beef) (Average Quality), Cooked Beef At
Miscellaneous		Toilet Soap Lux 75 Gm, Blade Treet Ordinary (10 No. Packet),	Purse Ladies Medium Size (Average Quality), Shaving Cream (Touchme Large/Admiral), Tooth Paste Colgate 90 MI Bottle, Suitcase Ragzine (24"X16"X6") (Average Quality), Disposable Razor Gillette Blue Ji,	Talcum Powder Viceroy/Black Cat, Hair Removing Cream (Eu-Cream) 30MI Tube, Tooth Brush (Shield), Hair Color (Kala Kola), Trunk Medium Size (Average Quality), Hair Cut Charges For Men, Shaving Charges, Gold Tezabi 24 Carett,

Table A18: Distribution of Price Changes (YoY) - WPI Items: March 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	Eggs, Stimulant & Spice Crops, Maize, Hides, Skins & Fur Skins, Raw, Edible Roots / Potatoes,	Fish Live Fresh or Chilled, Raw Animal Materials / Wool, Wheat, Fuel Wood in Logs, Cotton Seeds,	Dry Fruits, Rice, Sorghum / Jowar,	Raw Milk from Bovine Animals, Unmanufactured Tobacco, Sugar Crops, Pulses, Millet / Bajra, Poultry, Fresh Fruits, Vegetables, Fiber Crops, Other Oil Seeds,
Ores/Minerals, Elec., Gas & Water		Natural Gas Liquefied,		Salt & Pure Sodium Chloride, Electrical Energy, Coal not Agglomerated,
Food, Beverages, Tobacco, Textile, Apparel and Leather Product	Spices, Sugar Refined, Tobacco Products, Nylon Yarn, Footwears,	Blankets, Sugar Confectionary, Other Food Products, Chocolate, Readymade Garments, Fruit Juices, Beverages, Dried Fruits & Nuts,	Other Leather N.E.C, Milk & Cream in Solid Form, Dairy Products N.E.C, Woolen Carpets, Processed Liquid Milk, Synthetic Carpets, Ice Cream, Bed Sheets, Cotton Yarn,	Other Cereal Flour, Other Fabrics, Vegetables & Fruit Juice, Mineral Water, Blended Yarn, Woven Fabrics, Hosiery Products, Cotton Fabrics, Quilts, Oil Cakes, Wheat Flour, Leather Without Hair, Towels,
Other Transportable Goods except Metal Products, Machinery, and Equipments	Printing Paper, Hard Board, Dyeing Material, Insecticides,	Glass sheets, Pesticides, Matches,	Other Glass Articles, Plastic Products, Timber, Ceramics & Sanitary Fixture, Bricks, Blocks & Tiles,	Medicines, Paints & Varnishes, Soaps & Detergents, Mobil Oil, Auto Tyres, Cement, Bed Foam, Motor Spirit, Diesel Oil, Fertilizers, Chemicals, Kerosene Oil, Furnace Oil,
Metal Product, Machinery & Equipments	Vacuum Pumps,	Electric Wires,	Steel Products, Radio & Television, Motor Vehicles, Fridge, WashM, SewM, Fans, Iron, Engines & Motors,	Bicycles, Lighting Equipments, Motorcycles, Lathe Machines, Air Conditioners, Pipe Fittings, Tractors, Steel Bar & Sheets, Concrete Mixture, Cultivators, Chuff Cutter,

Table A19: International Commodity Prices/Indices				
Commodity/Indices	Jun-21	Mar-21	Feb-22	Mar-22
Energy				
Crude Oil (US\$ per barrel)*	71.8	63.8	93.5	112.4
Energy Index (2010 = 100)	93.1	79.8	129.7	160.9
Food				
Rice (\$/MT)	466.0	525.0	427.0	422.0
Wheat (\$/MT)##	263.5	272.6	..	533.1
Sugar (US cent/ pound)^	17.4	15.5	17.9	19.0
Palm Oil (\$/MT)	1,004.4	1,030.5	1,522.4	1,777.0
Soybean Oil (\$/MT)	1,518.2	1,284.8	1,595.7	1,956.9
Non-Food Non-Energy				
Cotton Outlook 'A' Index #^	94.5	91.4	138.4	141.1
Metal Price Index (2010 =	119.0	109.0	138.9	149.9
Copper (\$/MT)	9,631.5	8,988.3	9,943.2	10,230.9
Aluminum (\$/MT)	2,446.7	2,190.5	3,245.8	3,498.4
Iron Ore (\$ cents/dry MT)	214.4	168.2	142.8	152.1
Tin (\$/MT)	32,502.6	27,061.0	43,983.4	43,949.7
Nickel (\$/MT)	17,979.6	16,406.7	24,015.6	33,924.2
Zinc (\$/MT)	2,951.9	2,791.9	3,620.0	3,962.2
Lead (\$/MT)	2,191.0	1,948.0	2,296.9	2,344.8
Uranium (\$/MT)@	32.3	31.0	48.8	58.2
DAP (\$/MT)	604.8	534.1	747.1	938.1
Urea (\$/MT)	393.3	352.9	744.2	907.9

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: 1 US \$ / 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 March 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	153.61
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	160.61
Mar	109.96	119.46	131.69	143.61	161.88
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	107.20	113.92	125.98	136.43	147.92
Sep	107.69	113.58	126.56	138.05	150.48
Oct	108.24	115.27	127.99	139.38	152.19
Nov	108.80	114.89	129.36	140.09	156.18
Dec	109.81	115.62	130.15	140.46	157.65
Jan	110.22	116.36	133.30	140.85	159.11
Feb	110.36	117.70	132.18	143.58	161.07
Mar	110.45	119.91	132.11	143.99	162.23
Apr	111.20	120.40	130.68	145.21	
May	112.31	121.78	131.82	146.14	
Jun	113.39	122.57	133.18	146.13	

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	159.03
Mar	110.43	120.29	131.49	142.99	160.07
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	107.40	114.69	124.75	134.59	146.32
Aug	107.69	114.40	126.67	135.80	147.17
Sep	108.04	114.19	127.44	137.27	149.83
Oct	108.54	116.20	128.82	138.27	151.48
Nov	109.14	115.93	129.86	138.83	155.43
Dec	110.18	116.58	130.50	139.52	157.22
Jan	110.56	117.40	133.15	139.86	158.02
Feb	110.79	118.70	131.91	143.16	159.56
Mar	111.02	120.85	132.02	143.48	160.55
Apr	111.82	121.17	130.48	144.79	
May	112.94	122.57	131.49	145.74	
Jun	114.00	123.30	132.81	145.65	

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	162.99
Mar	109.25	118.21	132.00	144.55	164.62
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	106.45	113.54	122.55	136.80	147.82
Aug	106.47	113.19	124.95	137.39	149.04
Sep	107.15	112.67	125.24	139.22	151.47
Oct	107.78	113.88	126.75	141.06	153.26
Nov	108.30	113.33	128.62	141.97	157.31
Dec	109.25	114.17	129.62	141.86	158.29
Jan	109.70	114.79	133.54	142.34	160.74
Feb	109.69	116.19	132.60	144.22	163.34
Mar	109.59	118.50	132.25	144.76	164.78
Apr	110.26	119.24	130.98	145.84	
May	111.36	120.60	132.31	146.76	
Jun	112.47	121.47	133.74	146.86	

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	100.10	100.01	99.92	99.85	99.79	99.94
Sep	100.33	100.28	100.24	100.20	100.17	100.24
Oct	100.91	100.91	100.91	100.92	100.93	100.92
Nov	101.05	101.12	101.19	101.25	101.28	101.18
Dec	100.10	100.17	100.23	100.29	100.33	100.22
Jan	99.81	99.80	99.80	99.80	99.80	99.80
Feb	99.42	99.51	99.59	99.66	99.72	99.58
Mar	99.56	99.62	99.68	99.74	99.78	99.68
Apr	99.95	99.95	99.93	99.92		99.94
May	99.41	99.40	99.39	99.38		99.39
Jun	99.29	99.23	99.17	99.10		99.20

Table A24: Urban CPI Monthly & Average Seasonal Factors						
Period	FY18	FY19	FY20	FY21	FY22	Average
Jul	100.28	100.22	100.16	100.11	100.06	100.17
Aug	100.23	100.16	100.08	100.02	99.96	100.09
Sep	100.31	100.26	100.22	100.19	100.17	100.23
Oct	100.74	100.73	100.73	100.73	100.73	100.73
Nov	100.82	100.87	100.92	100.95	100.99	100.91
Dec	99.91	99.99	100.05	100.11	100.15	100.04
Jan	99.75	99.72	99.71	99.71	99.71	99.72
Feb	99.39	99.48	99.56	99.61	99.66	99.54
Mar	99.47	99.53	99.60	99.66	99.70	99.59
Apr	100.11	100.10	100.09	100.09		100.10
May	99.63	99.63	99.62	99.62		99.63
Jun	99.42	99.37	99.31	99.24		99.33

Table A25: Rural CPI Monthly & Average Seasonal Factors

Period	FY18	FY19	FY20	FY21	FY22	Average
Jul	99.86	99.79	99.73	99.68	99.63	99.74
Aug	99.90	99.79	99.69	99.60	99.53	99.70
Sep	100.36	100.30	100.25	100.21	100.18	100.26
Oct	101.18	101.19	101.20	101.22	101.23	101.21
Nov	101.41	101.50	101.59	101.67	101.73	101.58
Dec	100.39	100.46	100.51	100.55	100.58	100.50
Jan	99.91	99.91	99.91	99.92	99.92	99.91
Feb	99.47	99.56	99.65	99.72	99.79	99.64
Mar	99.69	99.76	99.81	99.86	99.90	99.80
Apr	99.72	99.71	99.69	99.68		99.70
May	99.07	99.05	99.03	99.02		99.04
Jun	99.09	99.03	98.97	98.90		98.99

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	1.15
Mar	0.22	2.00	0.04	0.36	0.79
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	-0.20	0.74	1.06	1.72	0.54
Aug	0.17	-0.27	1.70	0.71	0.68
Sep	0.45	-0.29	0.46	1.18	1.73
Oct	0.51	1.49	1.13	0.97	1.14
Nov	0.52	-0.33	1.07	0.51	2.62
Dec	0.92	0.63	0.61	0.26	0.94
Jan	0.37	0.64	2.42	0.28	0.93
Feb	0.13	1.15	-0.84	1.94	1.23
Mar	0.08	1.88	-0.06	0.28	0.72
Apr	0.68	0.40	-1.08	0.84	
May	1.00	1.15	0.87	0.65	
Jun	0.96	0.65	1.04	-0.01	

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	0.93
Mar	0.28	1.87	0.13	0.27	0.65
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	0.46
Aug	0.26	-0.25	1.54	0.90	0.58
Sep	0.33	-0.18	0.61	1.08	1.81
Oct	0.46	1.76	1.08	0.73	1.10
Nov	0.55	-0.23	0.81	0.41	2.60
Dec	0.95	0.56	0.50	0.50	1.16
Jan	0.35	0.70	2.03	0.24	0.51
Feb	0.21	1.11	-0.94	2.36	0.98
Mar	0.20	1.81	0.08	0.22	0.61
Apr	0.72	0.26	-1.16	0.91	
May	1.00	1.16	0.77	0.66	
Jun	0.94	0.59	1.01	-0.06	

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	1.48
Mar	0.13	2.19	-0.10	0.51	1.00
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	-0.18	0.95	0.89	2.29	0.66
Aug	0.02	-0.30	1.96	0.43	0.83
Sep	0.64	-0.46	0.23	1.33	1.63
Oct	0.59	1.07	1.21	1.33	1.18
Nov	0.48	-0.49	1.47	0.64	2.64
Dec	0.88	0.74	0.77	-0.08	0.62
Jan	0.41	0.54	3.02	0.34	1.55
Feb	0.00	1.22	-0.70	1.32	1.62
Mar	-0.10	1.99	-0.26	0.37	0.88
Apr	0.61	0.62	-0.96	0.75	
May	1.00	1.14	1.02	0.63	
Jun	0.99	0.72	1.08	0.07	

List of Figures

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



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

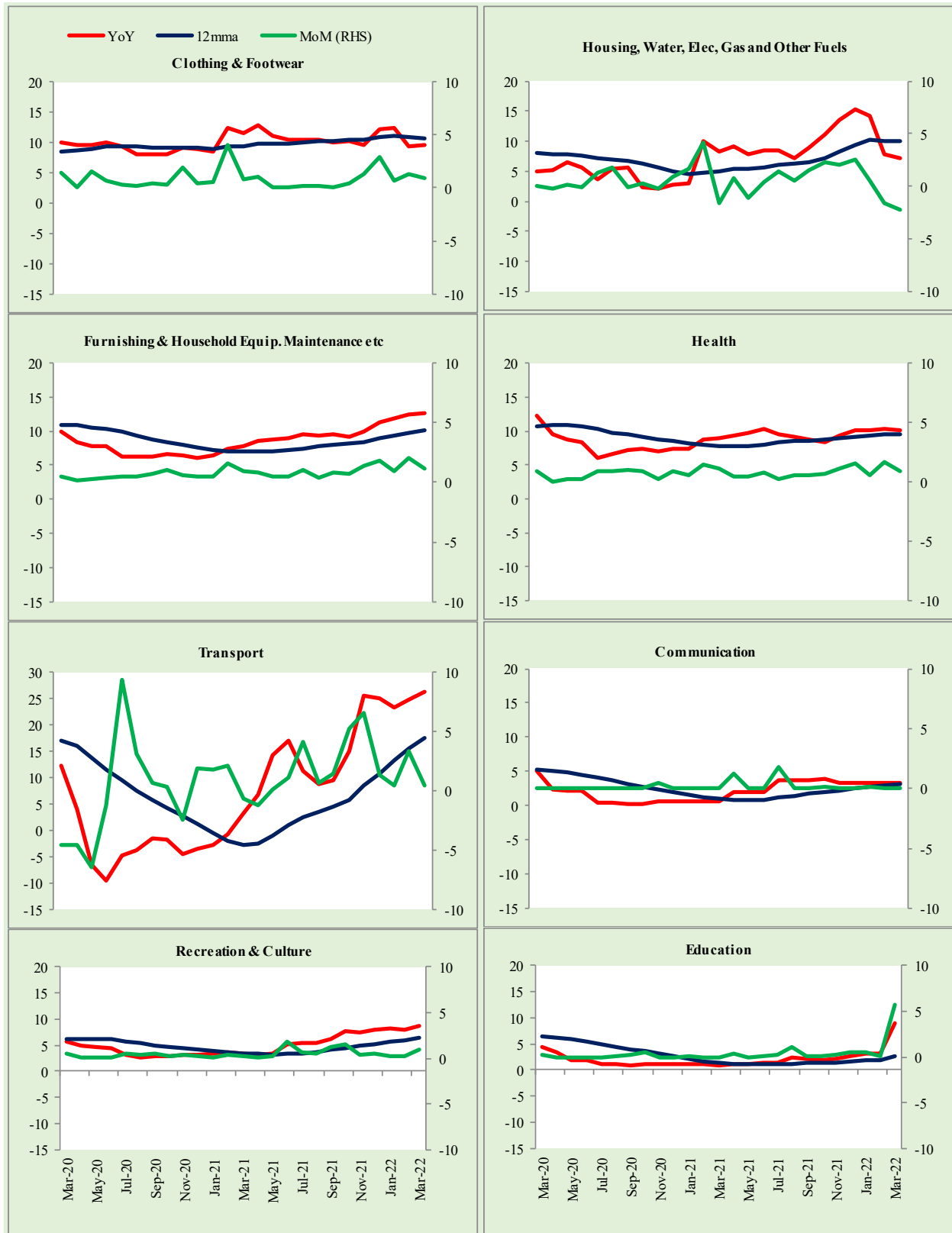
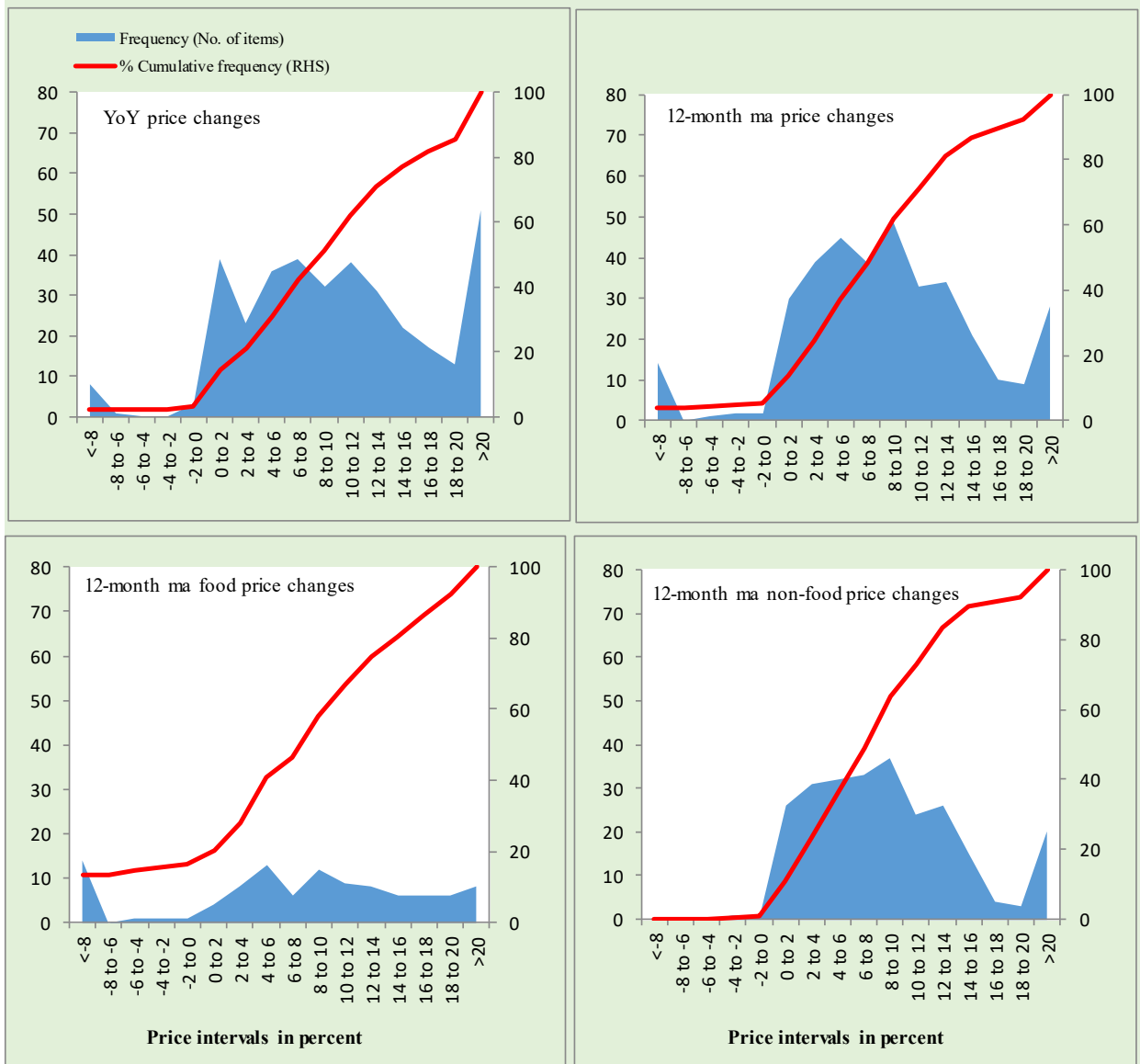


Figure A3: Rural CPI Non-food Inflation (YoY, 12MMA, MoM in percent)

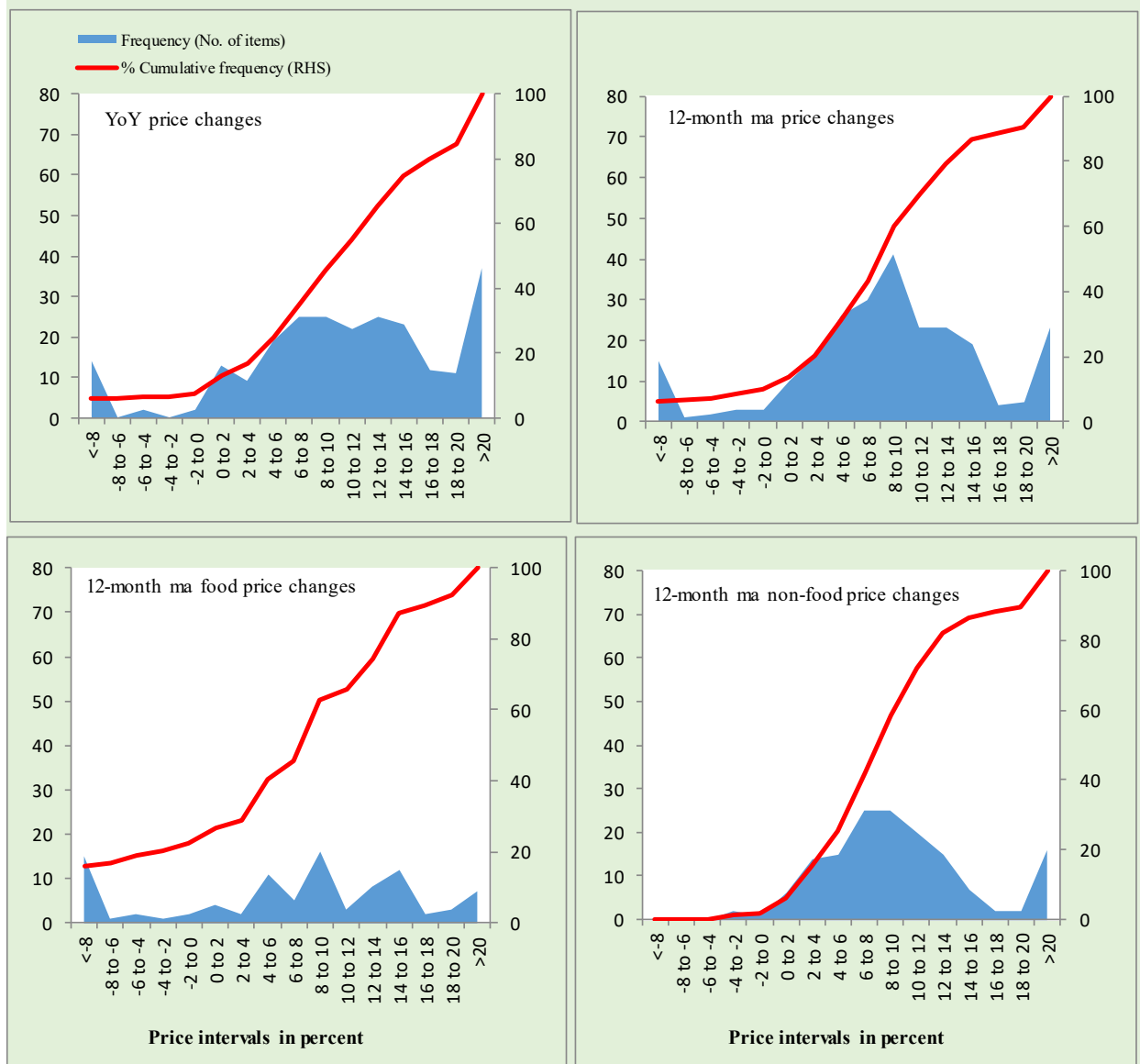


Figure A4: Frequency Distribution of Price Changes of Urban CPI Items (YoY)



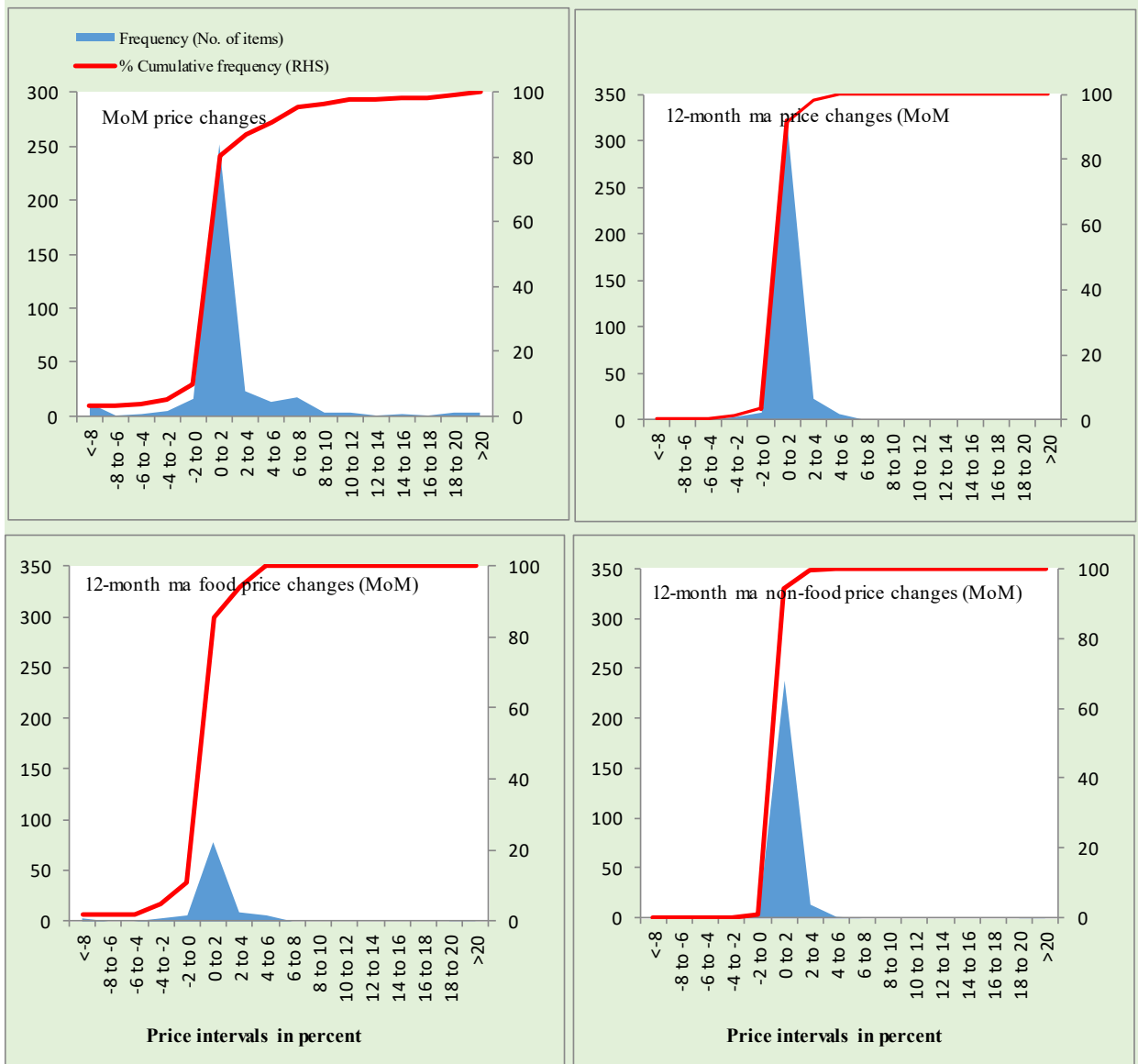
Total Items in CPI Basket (356), Food Items (103) and non-Food Items (253).

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



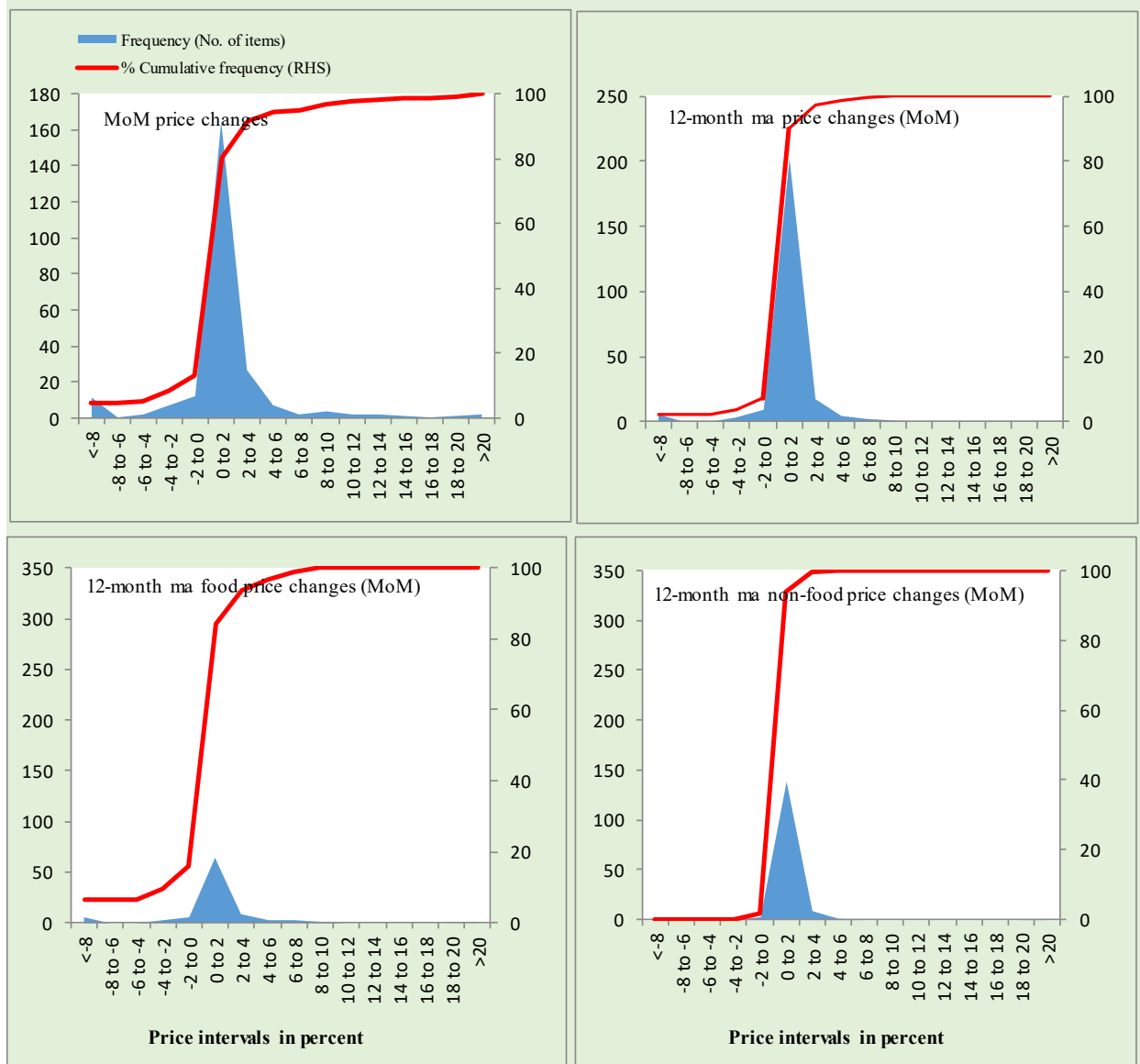
Total Items in CPI Basket (244), Food Items (94) and non-Food Items (150).

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



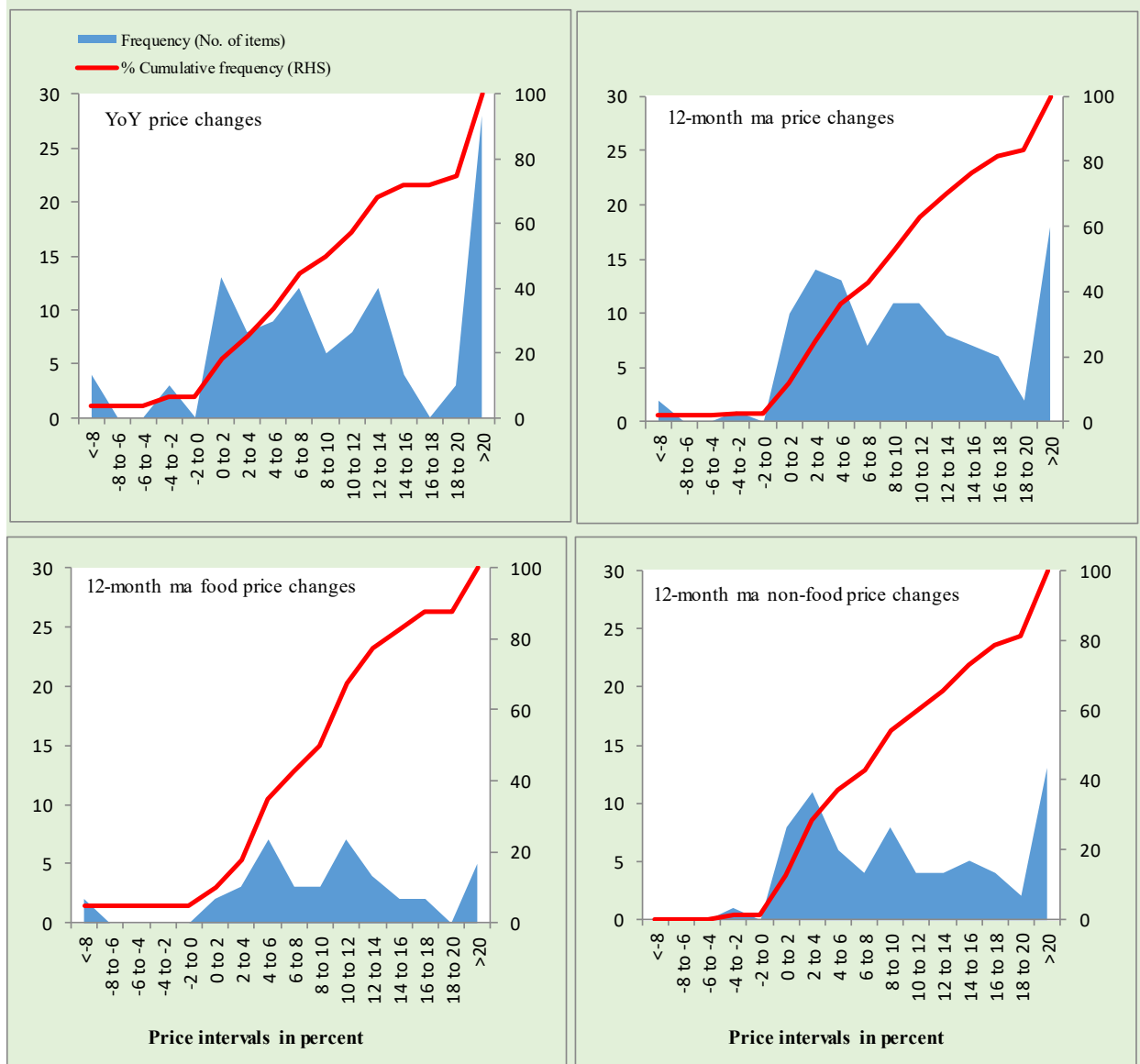
Total Items in CPI Basket (356), Food Items (103) and non-Food Items (253).

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



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

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



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

Technical Notes, Definitions and Methodologies

Technical Notes

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

reference month

w_i : Weights of i^{th} item

π_{it} : Inflation of i^{th} item

π_t : Overall inflation

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

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

Methodology for Estimating Inflation Diffusion Index for Pakistan

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

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

Thus, it is the difference between the share of items with increasing prices (i.e. depicting inflation) and the share of items with falling prices (i.e. depicting deflation) in CPI amongst the items for which prices have altered or remained constant¹.

Based upon item level prices data from July 2001 to March 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.