

Inflation Monitor

April 2021

(New Base: 2015-16)



State Bank of Pakistan

Statistics & DWH Department

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Team

- Mazhar Hussain Sr. Joint Director
mazhar.hussain@sbp.org.pk
- Muhammad Abdus Salam Joint Director
muhammad.abdussalam@sbp.org.pk
- Muhammad Sajjad Kiani Deputy Director
sajjad.kiani@sbp.org.pk

Review

1. Inflation in Brief

1. National CPI inflation (2015-16=100) is recorded at 11.1 percent on year-on-year basis in April 2021 as compared to 9.1 percent in the previous month and 8.5 percent during the corresponding month of last year.
2. National CPI inflation on month-on-month basis is recorded at 1.0 percent in April 2021 as compared to 0.4 percent in the previous month and -0.8 percent during corresponding month of last year. Seasonally adjusted month-on-month CPI inflation is recorded at 0.70 percent in April 2021 compared to 0.33 percent in the previous month.
3. Urban CPI inflation (2015-16=100) is recorded at 11.0 percent on year-on-year basis in April 2021 as compared to 8.7 percent in the previous month and 7.7 percent during the corresponding month of last year.
4. Urban CPI inflation on month-on-month basis is recorded at 1.3 percent in April 2021 as compared to 0.3 percent in the previous month and -0.7 percent during corresponding month of last year. Seasonally adjusted month-on-month Urban CPI inflation is recorded at 0.75 percent in April 2021 compared to 0.36 percent in the previous month.
5. Rural CPI inflation (2015-16=100) is recorded at 11.3 percent on year-on-year basis in April 2021 as compared to 9.5 percent during the previous month and 9.8 percent during the corresponding month of last year.
6. Rural CPI inflation on month-on-month basis is recorded at 0.6 percent in April 2021 as compared to 0.5 percent in the previous month and -1.1 percent during the corresponding month of last year. Seasonally adjusted month-on-month Rural CPI inflation is recorded at 0.62 percent in April 2021 compared to 0.28 percent in the previous month.

7. Urban Core inflation (trimmed) on year-on-year basis is recorded at 9.8 percent in April 2021 as compared to 8.1 percent in the previous month and 6.7 percent during the corresponding month of last year.
8. On month-on-month basis, the Urban Core inflation (trimmed) is recorded at 0.6 percent in April 2021 as compared to 0.4 percent in the previous month and -0.2 percent during the corresponding month of last year.
9. Rural Core inflation (trimmed) on year-on-year basis is recorded at 10.6 percent in April 2021 as compared to 9.4 percent in the previous month and 9.3 percent during the corresponding month of last year.
10. On month-on-month basis, the Rural Core inflation (trimmed) is recorded at 0.2 percent in April 2021 as compared to 0.3 percent in the previous month and -0.6 percent during the corresponding month of last year.
11. Urban Core (Non-food, non-energy (NFNE)) inflation on year-on-year basis is recorded at 7.0 percent in April 2021 as compared to 6.3 percent in the previous month. It was 6.4 percent during the corresponding month of last year.
12. Urban Core (NFNE) inflation on month-on-month basis recorded at 0.9 percent in April 2021 as compared to 0.2 percent in the previous month and the corresponding month of last year.
13. Rural Core (NFNE) inflation on year-on-year basis is recorded at 7.7 percent in April 2021 as compared to 7.3 percent in the previous month and 8.5 percent during the corresponding month of last year.
14. Rural Core (NFNE) inflation on month-on-month basis recorded at 0.7 percent in April 2021 as compared to 0.3 percent in the previous month and the corresponding month of last year.

15. WPI inflation on year-on-year basis recorded at 16.6 percent in April 2021 as compared to 14.6 percent in the previous month and 4.9 percent during the corresponding month of last year.
16. WPI inflation on month-on-month basis recorded at -0.4 percent in April 2021 as compared to 3.7 percent in the previous month. It was -2.0 percent in the corresponding month of last year.
17. SPI inflation on year-on-year basis recorded at 17.8 percent in April 2021 as compared to 14.3 percent in the previous month. It was 8.5 percent in the corresponding month of last year.
18. SPI inflation on month-on-month basis recorded at 0.4 percent in April 2021 as compared to 2.7 percent in the previous month. It was -2.6 percent in the corresponding month of last year.

2. Heat-maps of CPI inflation

The heat map visually elaborates the evolution of inflation. A heat-map for National, Urban and Rural CPI inflation (YoY/MoM) and their important sub-indexes for the time span of last thirteen months is presented. The inflation is compared with the benchmark of medium-term inflation target of 8.5 percent and 0.75 percent on YoY and MoM basis, respectively. Greener 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.

		Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21
Headline	National	8.5	8.2	8.6	9.3	8.2	9.0	8.9	8.3	8.0	5.7	8.7	9.1	11.1
	Urban	7.7	7.3	7.6	7.8	7.1	7.7	7.3	7.0	7.0	5.0	8.6	8.7	11.0
	Rural	9.8	9.7	10.0	11.6	9.9	11.1	11.3	10.5	9.5	6.6	8.8	9.5	11.3
Food	Urban	10.4	10.6	12.9	15.1	11.3	12.4	13.9	13.0	12.6	7.3	10.3	11.5	15.7
	Rural	12.9	13.7	15.2	17.8	13.5	15.8	17.7	16.1	13.4	7.2	9.1	11.1	14.1
Core	Urban	6.4	6.3	6.5	5.3	5.6	5.5	5.6	5.6	5.6	5.4	6.4	6.3	7.0
	Rural	8.5	8.4	8.8	7.8	7.6	7.8	7.6	7.4	7.7	7.8	7.7	7.3	7.7

Source: Pakistan Bureau of Statistics and SBP staff estimates

Key

<6 8.5 >10

Inflation Monitor, April 2021

Heat-map of National, Urban and Rural CPI inflation (MoM)

		Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21
Headline	National	-0.8	0.3	0.8	2.5	0.6	1.5	1.7	0.8	-0.7	-0.2	1.8	0.4	1.0
	Urban	-0.7	0.3	0.7	2.2	0.8	1.3	1.3	0.6	-0.3	-0.2	2.3	0.3	1.3
	Rural	-1.1	0.3	1.0	3.0	0.4	2.0	2.4	1.1	-1.2	-0.3	1.1	0.5	0.6
Food	Urban	-1.0	1.5	1.8	3.0	-0.3	3.0	2.8	1.6	-2.1	-2.1	1.3	1.7	2.7
	Rural	-1.7	1.4	2.0	4.0	-0.9	3.8	4.3	2.0	-3.4	-2.2	0.2	1.5	0.9
Core	Urban	0.2	0.4	0.4	0.6	0.7	0.3	0.6	0.3	0.4	0.9	1.1	0.2	0.9
	Rural	0.3	0.4	0.7	1.1	0.8	0.4	0.6	0.3	0.5	1.1	0.5	0.3	0.7

Source: Pakistan Bureau of Statistics and SBP staff estimates

Key: <0.00 0.75 >1.50

Heat-map of National CPI inflation (YoY)

	Weights	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21
National	100.00	8.5	8.2	8.6	9.3	8.2	9.0	8.9	8.3	8.0	5.7	8.7	9.1	11.1
Food and non-alcoholic Beverages	34.58	11.7	12.2	14.6	17.8	12.9	14.7	16.6	15.1	13.3	6.7	9.7	11.6	15.9
Alcoholic Beverages, Tobacco	1.02	19.6	19.5	14.2	5.0	5.8	5.9	6.0	5.9	6.0	5.8	5.7	5.9	4.9
Clothing and footwear	8.60	10.2	10.3	11.0	10.3	9.2	9.1	9.0	9.4	9.6	9.5	11.3	10.7	11.9
Housing, water, Elec., Gas and other fuels	23.63	5.1	6.4	5.4	4.2	6.0	6.1	2.7	2.6	3.4	3.4	10.6	8.8	9.7
Furnishing and household equipment maintenance	4.10	9.0	8.7	8.8	7.8	7.5	7.9	8.0	7.7	7.7	7.6	8.5	8.9	9.4
Health	2.79	10.5	9.8	9.3	7.8	7.7	8.3	7.8	7.6	8.1	8.5	9.2	8.8	9.0
Transport	5.91	3.4	-7.5	-10.2	-4.5	-3.4	-1.5	-1.5	-4.1	-3.5	-2.6	-1.0	2.9	6.5
Communication	2.21	1.7	1.6	1.6	0.3	0.3	0.3	0.3	0.6	0.5	0.5	0.6	0.6	1.5
Recreation and culture	1.59	5.1	4.9	4.8	3.8	3.5	3.9	3.9	4.2	4.4	4.6	4.8	4.6	4.6
Education	3.79	3.2	2.0	2.0	1.1	1.0	1.0	1.4	1.3	1.2	1.3	1.2	1.0	1.6
Restaurants and hotels	6.92	8.5	8.6	9.0	7.5	8.0	8.2	8.9	9.3	9.9	8.9	8.0	8.1	8.2
Misc. goods and services	4.87	11.9	11.9	11.6	11.7	13.6	12.2	11.6	11.9	11.9	11.5	12.2	10.6	10.0

Source: Pakistan Bureau of Statistics and SBP staff estimates

Key: <6 8.5 >10

Heat-map of Urban CPI inflation (YoY)

	Weights	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21
Urban	100.00	7.7	7.3	7.6	7.8	7.1	7.7	7.3	7.0	7.0	5.0	8.6	8.7	11.0
Food and non-alcoholic Beverages	30.42	10.7	10.9	13.8	16.9	11.9	13.3	14.9	13.7	13.1	6.7	10.5	11.9	17.0
Alcoholic Beverages, Tobacco	0.85	18.8	19.0	13.3	4.7	5.5	5.7	6.2	6.7	6.6	6.2	6.3	6.9	6.0
Clothing and footwear	8.01	9.5	9.5	10.1	9.4	8.0	8.0	8.0	9.1	8.8	8.5	12.3	11.5	12.7
Housing, water, Elec., Gas and other fuels	27.03	3.1	6.5	5.6	3.6	5.4	5.5	2.3	2.2	2.8	2.9	10.0	8.2	9.3
Furnishing and household equipment maintenance	4.09	8.3	7.7	7.7	6.3	6.2	6.3	6.6	6.4	6.1	6.4	7.4	7.9	8.6
Health	2.31	9.4	8.7	8.4	5.9	6.7	7.2	7.3	7.1	7.4	7.4	8.7	8.9	9.4
Transport	6.14	4.1	-6.5	-9.5	-4.8	-3.7	-1.6	-1.7	-4.5	-3.6	-2.8	-0.8	3.2	6.8
Communication	2.35	2.3	2.2	2.1	0.4	0.4	0.3	0.3	0.7	0.6	0.6	0.7	0.7	1.9
Recreation and culture	1.73	4.9	4.6	4.4	3.1	2.7	2.9	2.9	3.2	3.3	3.3	3.6	3.3	3.2
Education	4.88	3.4	1.9	1.9	1.1	1.0	0.9	1.2	1.1	1.0	1.1	1.1	0.9	1.2
Restaurants and hotels	7.41	7.4	7.2	7.7	6.7	8.2	8.2	8.8	9.3	10.0	8.7	7.9	8.4	8.5
Misc. goods and services	4.77	11.0	10.9	10.6	10.4	12.6	10.5	9.7	10.4	10.6	10.4	11.8	10.3	9.8

Source: Pakistan Bureau of Statistics and SBP staff estimates

Key: <6 8.5 >10

Heat-map of Rural CPI inflation (YoY)

	Weights	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21
Rural	100.00	9.8	9.7	10.0	11.6	9.9	11.1	11.3	10.5	9.5	6.6	8.8	9.5	11.3
Food and non-alcoholic Beverages	40.87	12.8	13.7	15.5	18.7	14.0	16.4	18.4	16.7	13.5	6.6	8.9	11.2	14.7
Alcoholic Beverages, Tobacco	1.28	20.4	20.1	15.3	5.4	6.1	6.1	5.7	5.0	5.4	5.3	5.0	4.8	3.7
Clothing and footwear	9.48	11.0	11.4	12.2	11.5	10.6	10.5	10.1	9.9	10.6	10.7	10.1	9.7	10.8
Housing, water, Elec., Gas and other fuels	18.49	5.2	6.0	4.9	5.5	7.2	7.4	3.7	3.6	4.9	4.5	12.2	10.1	10.7
Furnishing and household equipment maintenance	4.10	10.1	10.2	10.4	10.1	9.5	10.3	10.1	9.6	10.0	9.5	10.0	10.3	10.8
Health	3.51	11.6	10.9	10.1	9.7	8.7	9.3	8.3	8.2	8.8	9.6	9.8	8.8	8.6
Transport	5.56	2.3	-9.0	-11.5	-3.8	-3.0	-1.4	-1.1	-3.5	-3.3	-2.2	-1.2	2.4	6.1
Communication	1.99	0.8	0.7	0.6	0.3	0.2	0.2	0.4	0.4	0.4	0.4	0.3	0.4	0.8
Recreation and culture	1.38	5.4	5.5	5.5	5.2	5.0	5.8	5.7	6.0	6.6	7.0	7.0	7.0	7.0
Education	2.13	2.5	2.4	2.4	1.2	0.7	1.2	2.1	2.1	2.0	2.1	1.8	1.5	2.9
Restaurants and hotels	6.19	10.4	11.1	11.3	9.0	7.5	8.4	9.0	9.3	9.6	9.3	8.2	7.7	7.6
Misc. goods and services	5.02	13.2	13.5	13.2	13.8	15.0	14.5	14.3	14.1	13.8	13.2	12.8	11.1	10.3

Source: Pakistan Bureau of Statistics and SBP staff estimates

Key: <6 8.5 >10

Heat-map of National CPI inflation (MoM)

Weights	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	
National	100.00	-0.8	0.3	0.8	2.5	0.6	1.5	1.7	0.8	-0.7	-0.2	1.8	0.4	1.0
Food and non-alcoholic Beverages	34.58	-1.6	1.6	2.1	3.9	-0.9	3.8	3.9	1.9	-3.2	-2.7	0.8	1.7	2.2
Alcoholic Beverages, Tobacco	1.02	0.8	0.1	0.2	1.7	1.0	0.5	0.4	0.3	0.2	0.1	0.2	0.3	-0.1
Clothing and footwear	8.60	0.0	1.4	0.8	0.8	0.3	0.4	0.4	1.4	0.7	0.8	2.4	1.0	1.0
Housing, water, Elec., Gas and other fuels	23.63	-0.3	-0.1	-0.2	1.3	1.8	0.0	0.4	-0.1	1.2	1.9	4.4	-1.7	0.5
Furnishing and household equipment maintenance	4.10	0.3	0.4	0.5	0.9	0.6	1.1	0.9	0.5	0.5	0.4	1.4	1.0	0.9
Health	2.79	0.4	0.2	0.2	1.0	0.7	1.0	0.7	0.6	0.9	0.9	1.2	0.7	0.5
Transport	5.91	-4.5	-6.5	-1.1	9.6	3.0	0.4	0.4	-2.2	1.6	1.9	1.9	-0.7	-1.2
Communication	2.21	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	1.0
Recreation and culture	1.59	0.1	0.1	0.1	0.9	0.3	0.8	0.6	0.4	0.4	0.3	0.3	0.3	0.1
Education	3.79	0.0	0.0	0.0	0.0	0.3	0.5	0.0	0.0	0.1	0.0	0.0	0.5	
Restaurants and hotels	6.92	0.1	0.2	0.5	0.6	1.4	0.7	0.9	1.0	0.6	0.6	0.4	0.7	0.2
Misc. goods and services	4.87	1.0	0.1	0.8	2.0	3.6	0.0	0.1	0.7	0.2	1.0	1.3	-0.5	0.4

Source: Pakistan Bureau of Statistics and SBP staff estimates

<0.00 0.75 >1.50

Heat-map of Urban CPI inflation (MoM)

Weights	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	
Urban	100.00	-0.7	0.3	0.7	2.2	0.8	1.3	1.3	0.6	-0.3	-0.2	2.3	0.3	1.3
Food and non-alcoholic Beverages	30.42	-1.3	1.8	2.0	3.5	-0.7	3.5	3.2	1.7	-2.6	-2.7	1.5	1.8	3.2
Alcoholic Beverages, Tobacco	0.85	0.9	0.1	0.0	2.2	1.0	0.4	0.7	0.5	0.0	0.2	0.6	0.1	
Clothing and footwear	8.01	0.0	1.5	0.6	0.4	0.2	0.4	0.3	1.9	0.5	0.5	4.1	0.7	1.1
Housing, water, Elec., Gas and other fuels	27.03	-0.2	0.1	-0.1	1.3	1.7	0.0	0.3	-0.3	0.9	1.6	4.2	-1.6	0.7
Furnishing and household equipment maintenance	4.09	0.2	0.3	0.4	0.5	0.5	0.7	1.0	0.6	0.5	0.5	1.6	0.9	0.8
Health	2.31	0.0	0.2	0.3	0.9	0.9	1.0	0.9	0.2	0.9	0.6	1.5	1.1	0.5
Transport	6.14	-4.5	-6.4	-1.2	9.3	3.1	0.7	0.4	-2.4	1.9	1.8	2.2	-0.7	-1.2
Communication	2.35	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.1	0.1	0.1	0.1	0.0	1.3
Recreation and culture	1.73	0.1	0.0	0.1	0.5	0.4	0.6	0.2	0.4	0.2	0.1	0.3	0.3	0.0
Education	4.88	0.0	0.0	0.0	0.0	0.1	0.3	0.5	0.0	0.0	0.1	0.0	0.0	0.3
Restaurants and hotels	7.41	0.0	0.0	0.6	0.3	1.9	0.6	0.8	0.9	0.7	0.7	0.4	1.1	0.2
Misc. goods and services	4.77	1.0	0.0	0.8	1.6	3.4	-0.4	-0.2	0.9	0.4	1.0	1.6	-0.3	0.6

Source: Pakistan Bureau of Statistics and SBP staff estimates

<0.00 0.75 >1.50

Heat-map of Rural CPI inflation (MoM)

Weights	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	
Rural	100.00	-1.1	0.3	1.0	3.0	0.4	2.0	2.4	1.1	-1.2	-0.3	1.1	0.5	0.6
Food and non-alcoholic Beverages	40.87	-2.0	1.5	2.2	4.3	-1.1	4.1	4.7	2.1	-3.9	-2.6	0.1	1.7	1.0
Alcoholic Beverages, Tobacco	1.28	0.7	0.0	0.3	1.1	1.0	0.7	0.2	0.0	0.4	0.2	0.1	0.0	-0.4
Clothing and footwear	9.48	0.0	1.3	1.0	1.2	0.4	0.3	0.6	0.9	0.9	1.2	0.3	1.3	1.0
Housing, water, Elec., Gas and other fuels	18.49	-0.5	-0.5	-0.3	1.5	1.9	0.0	0.5	0.3	1.7	2.5	4.6	-1.8	0.0
Furnishing and household equipment maintenance	4.10	0.5	0.5	0.5	1.4	0.9	1.7	0.7	0.4	0.6	0.4	1.1	1.2	0.9
Health	3.51	0.7	0.2	0.2	1.1	0.4	0.9	0.4	1.0	0.9	1.3	0.9	0.3	0.5
Transport	5.56	-4.5	-6.5	-0.8	10.0	2.7	-0.2	0.4	-2.0	1.2	2.0	1.5	-0.6	-1.2
Communication	1.99	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.4
Recreation and culture	1.38	0.3	0.3	0.0	1.6	0.1	1.1	1.3	0.3	0.8	0.7	0.1	0.2	0.2
Education	2.13	0.0	0.0	0.0	0.0	0.0	0.4	0.9	0.0	0.0	0.1	0.1	0.0	1.4
Restaurants and hotels	6.19	0.3	0.6	0.5	1.1	0.6	1.0	0.9	1.0	0.5	0.6	0.4	0.1	0.2
Misc. goods and services	5.02	0.9	0.2	0.9	2.5	3.8	0.4	0.5	0.4	-0.1	1.0	0.9	-0.7	0.2

Source: Pakistan Bureau of Statistics and SBP staff estimates

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Heat-map of Rural CPI inflation (YoY)

Weights	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	
Rural	100.00	9.8	9.7	10.0	11.6	9.9	11.1	11.3	10.5	9.5	6.6	8.8	9.5	11.3
Food	45.95	12.9	13.7	15.2	17.8	13.5	15.8	17.7	16.1	13.4	7.2	9.1	11.1	14.1
Non-perishable	40.16	12.7	14.1	16.2	17.6	15.8	16.3	19.5	18.9	16.8	13.1	13.9	16.9	17.2
Perishable	5.79	13.5	11.4	10.9	25.4	3.7	16.9	13.4	7.4	-1.6	-23.9	-19.3	-19.4	0.5
Non Food	54.05	7.4	6.4	5.8	6.5	6.8	7.2	5.8	5.5	6.1	6.1	8.6	8.1	8.9
Energy	11.41	3.2	-1.3	-5.3	1.4	3.6	5.0	-0.8	-1.6	0.6	0.1	12.2	11.1	13.8
NFNE (Core)	42.64	8.5	8.4	8.8	7.8	7.6	7.8	7.6	7.4	7.7	7.8	7.7	7.3	7.7
HRI	8.61	5.1	5.1	5.1	4.9	4.9	4.9	5.2	5.2	5.2	5.8	5.8	5.8	6.6
Core Excl HRI	34.03	9.3	9.3	9.7	8.6	8.3	8.4	8.3	8.0	8.3	8.2	8.1	7.7	8.0

Source: Pakistan Bureau of Statistics and SBP staff estimates

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Inflation Monitor, April 2021

Heat-map of Urban CPI inflation (YoY)

	Weights	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21
Urban	100.00	7.7	7.3	7.6	7.8	7.1	7.7	7.3	7.0	7.0	5.0	8.6	8.7	11.0
Food	36.80	10.4	10.6	12.9	15.1	11.3	12.4	13.9	13.0	12.6	7.3	10.3	11.5	15.7
<i>Non-perishable</i>	32.34	11.0	12.9	15.7	16.2	13.6	13.2	16.7	15.9	15.9	12.2	15.4	17.2	19.4
<i>Perishable</i>	4.46	9.2	1.5	4.2	20.7	3.8	13.7	7.3	5.0	0.4	-18.9	-15.7	-15.6	4.6
Non Food	63.20	6.2	5.4	4.7	3.9	4.8	5.0	3.6	3.4	3.8	3.7	7.6	7.1	8.2
<i>Energy</i>	9.47	4.6	0.5	-5.0	-3.5	0.8	2.1	-6.1	-7.2	-5.2	-4.5	14.1	11.8	14.9
<i>NFNE (Core)</i>	53.73	6.4	6.3	6.5	5.3	5.6	5.5	5.6	5.6	5.6	5.4	6.4	6.3	7.0
<i>HRI</i>	19.26	4.2	4.2	4.2	4.3	4.3	4.3	4.7	4.7	4.7	4.8	4.8	4.8	6.2
<i>Core Excl HRI</i>	34.47	7.7	7.5	7.8	5.8	6.3	6.2	6.1	6.1	6.1	5.7	7.3	7.1	7.5

Source: Pakistan Bureau of Statistics and SBP staff estimates

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Heat-map of Rural CPI inflation (MoM)

	Weights	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21
Rural	100.00	-1.1	0.3	1.0	3.0	0.4	2.0	2.4	1.1	-1.2	-0.3	1.1	0.5	0.6
Food	45.95	-1.7	1.4	2.0	4.0	-0.9	3.8	4.3	2.0	-3.4	-2.2	0.2	1.5	0.9
<i>Non-perishable</i>	40.16	-1.5	2.0	3.1	2.2	0.8	1.9	3.0	1.3	-1.3	1.0	1.7	1.6	-1.2
<i>Perishable</i>	5.79	-4.9	-1.7	-3.2	17.3	-11.4	17.9	14.1	5.9	-16.0	-21.6	-11.1	2.8	18.5
Non Food	54.05	-0.5	-0.5	0.1	2.2	1.5	0.3	0.5	0.2	1.0	1.5	2.0	-0.4	0.3
<i>Energy</i>	11.41	-3.6	-4.2	-2.0	6.7	3.9	-0.1	0.1	-0.1	2.9	2.9	7.9	-2.8	-1.3
<i>NFNE (Core)</i>	42.64	0.3	0.4	0.7	1.1	0.8	0.4	0.6	0.3	0.5	1.1	0.5	0.3	0.7
<i>HRI</i>	8.61	0.4	0.0	0.0	1.7	0.0	0.0	0.8	0.0	0.0	2.8	0.0	0.0	1.2
<i>Core Excl HRI</i>	34.03	0.3	0.5	0.8	0.9	1.0	0.5	0.6	0.4	0.6	0.7	0.6	0.3	0.6

Source: Pakistan Bureau of Statistics and SBP staff estimates

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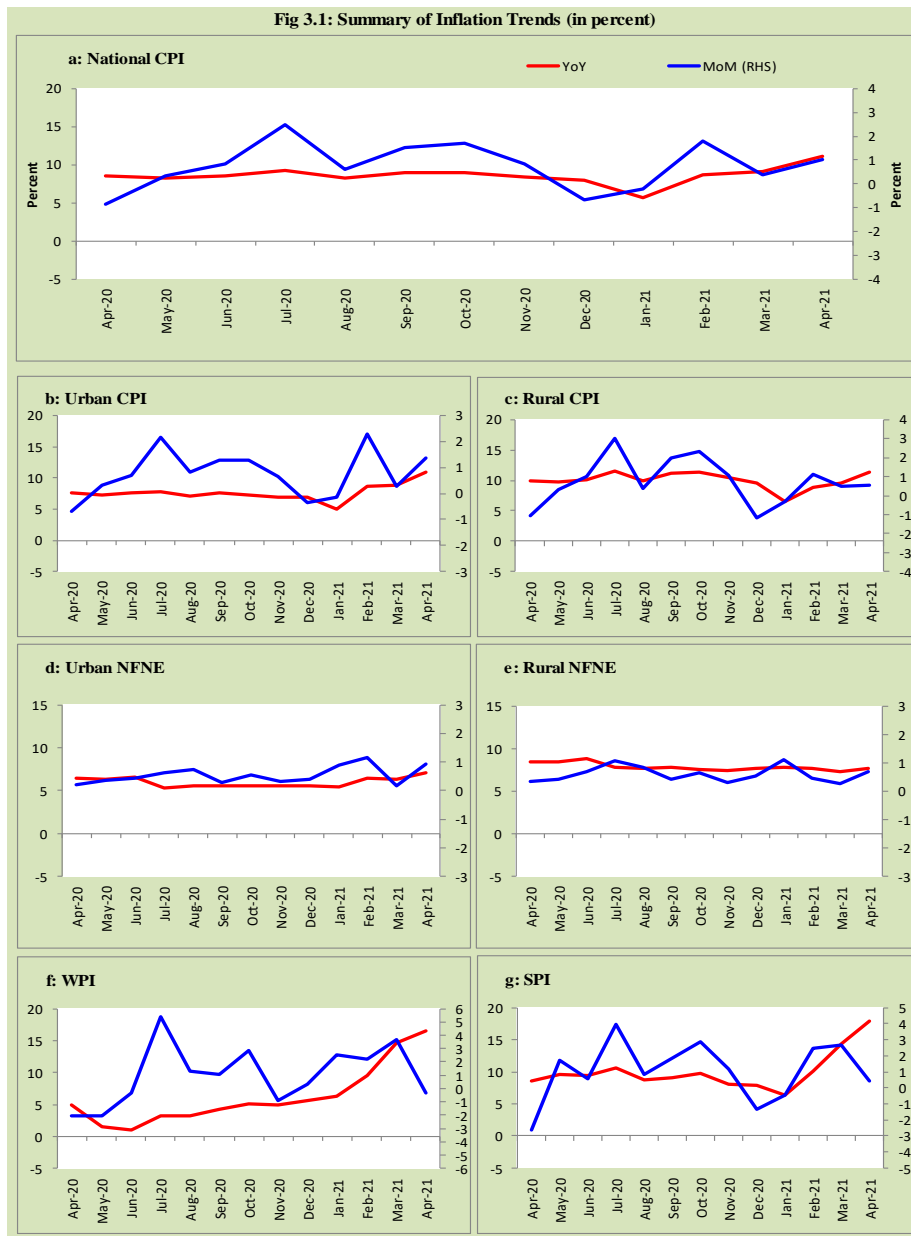
Heat-map of Urban CPI inflation (MoM)

	Weights	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21
Urban	100.00	-0.7	0.3	0.7	2.2	0.8	1.3	1.3	0.6	-0.3	-0.2	2.3	0.3	1.3
Food	36.80	-1.0	1.5	1.8	3.0	-0.3	3.0	2.8	1.6	-2.1	-2.1	1.3	1.7	2.7
<i>Non-perishable</i>	32.34	-1.4	2.6	2.7	1.5	0.8	1.4	2.9	0.6	0.0	0.3	3.1	1.5	0.5
<i>Perishable</i>	4.46	-0.8	-2.6	-1.6	14.5	-8.4	15.4	4.4	6.9	-14.3	-18.7	-9.1	3.7	23.0
Non Food	63.20	-0.5	-0.4	0.0	1.7	1.5	0.2	0.3	0.1	0.7	1.1	2.8	-0.6	0.5
<i>Energy</i>	9.47	-4.2	-4.6	-2.4	7.9	5.6	-0.3	-0.8	-1.3	2.7	2.0	12.1	-4.1	-1.5
<i>NFNE (Core)</i>	53.73	0.2	0.4	0.4	0.6	0.7	0.3	0.6	0.3	0.4	0.9	1.1	0.2	0.9
<i>HRI</i>	19.26	0.3	0.0	0.0	1.6	0.0	0.0	0.9	0.0	0.0	2.0	0.0	0.0	1.6
<i>Core Excl HRI</i>	34.47	0.2	0.6	0.7	0.1	1.1	0.4	0.4	0.5	0.6	0.3	1.8	0.2	0.5

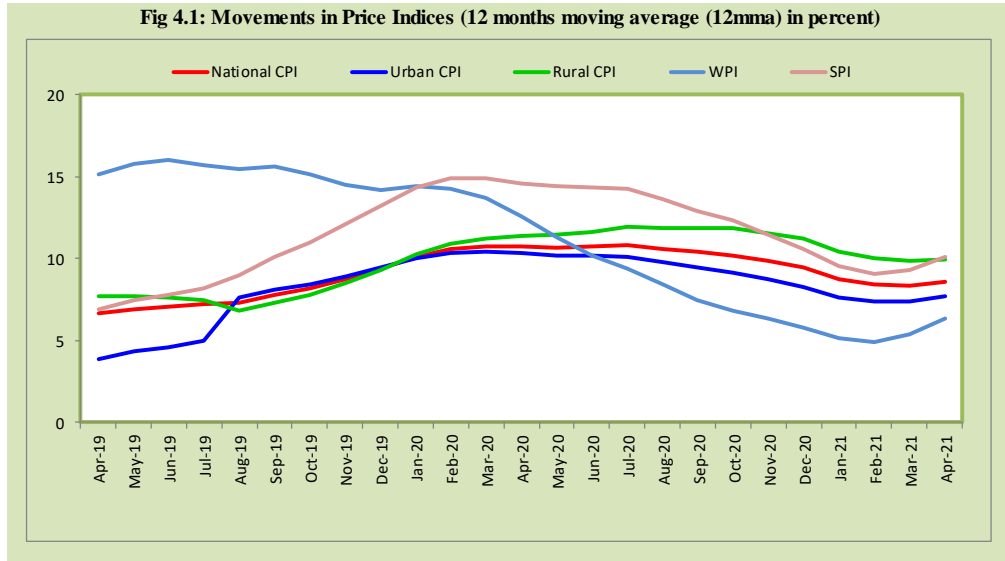
Source: Pakistan Bureau of Statistics and SBP staff estimates

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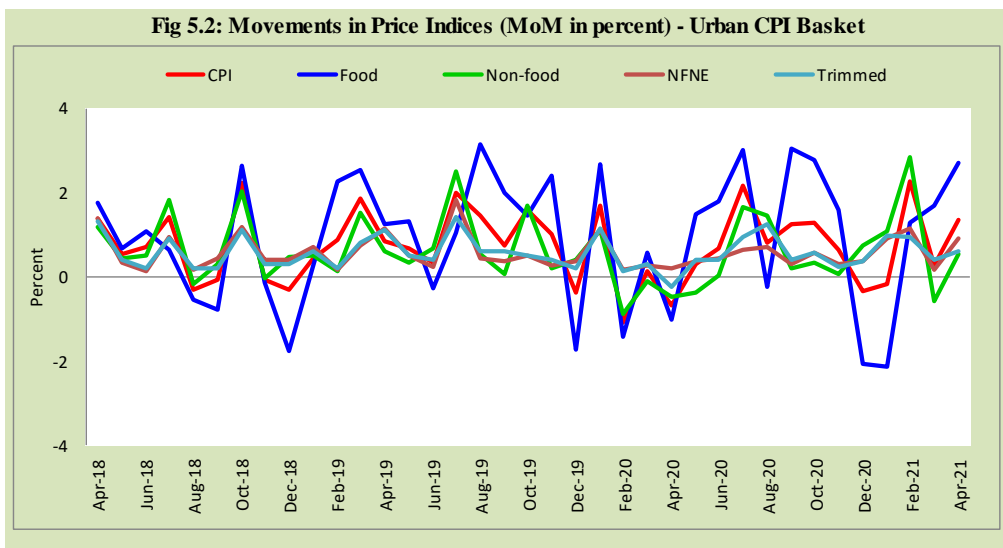
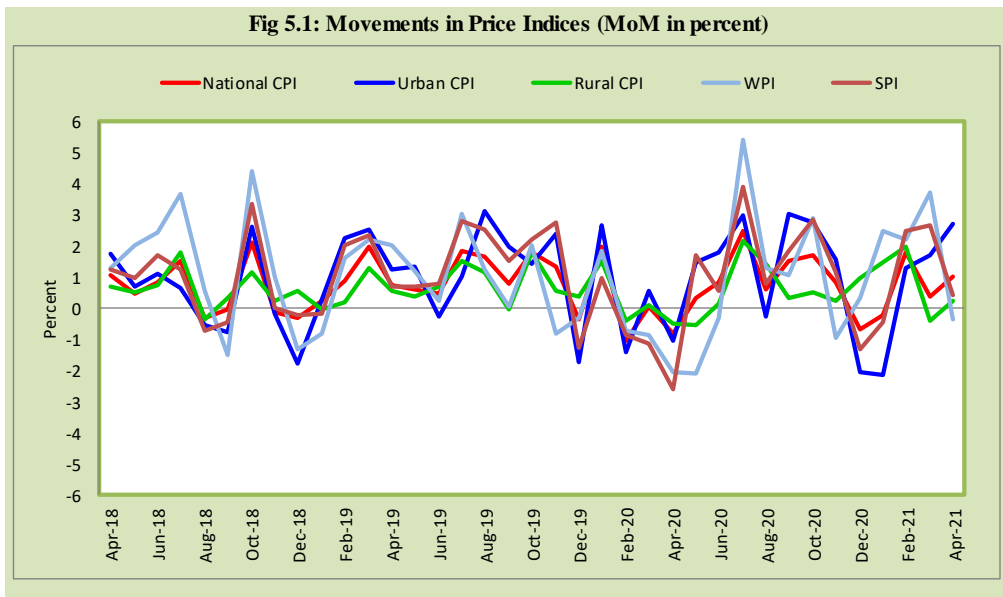
3. Trends in Inflation

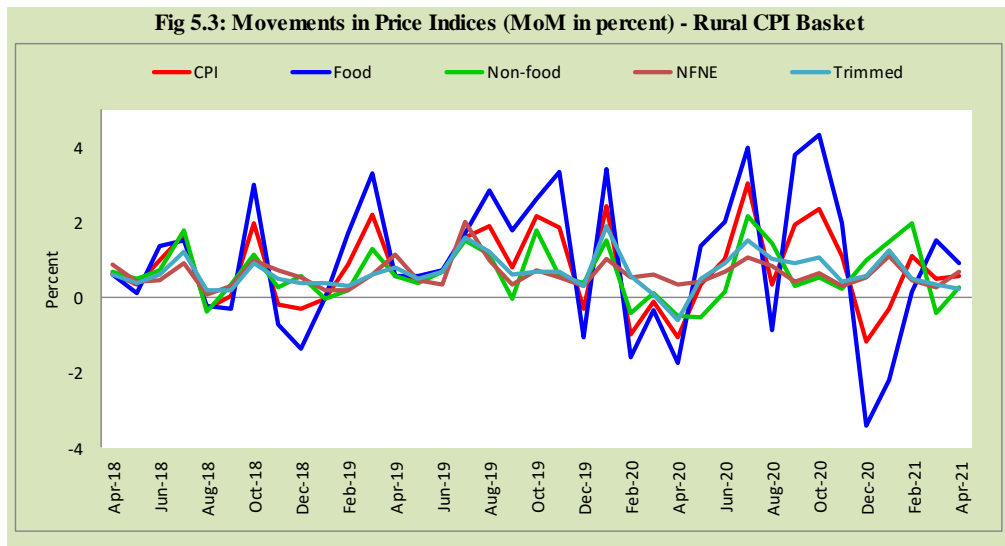


4. Movement in Price Indices (Moving Averages)



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

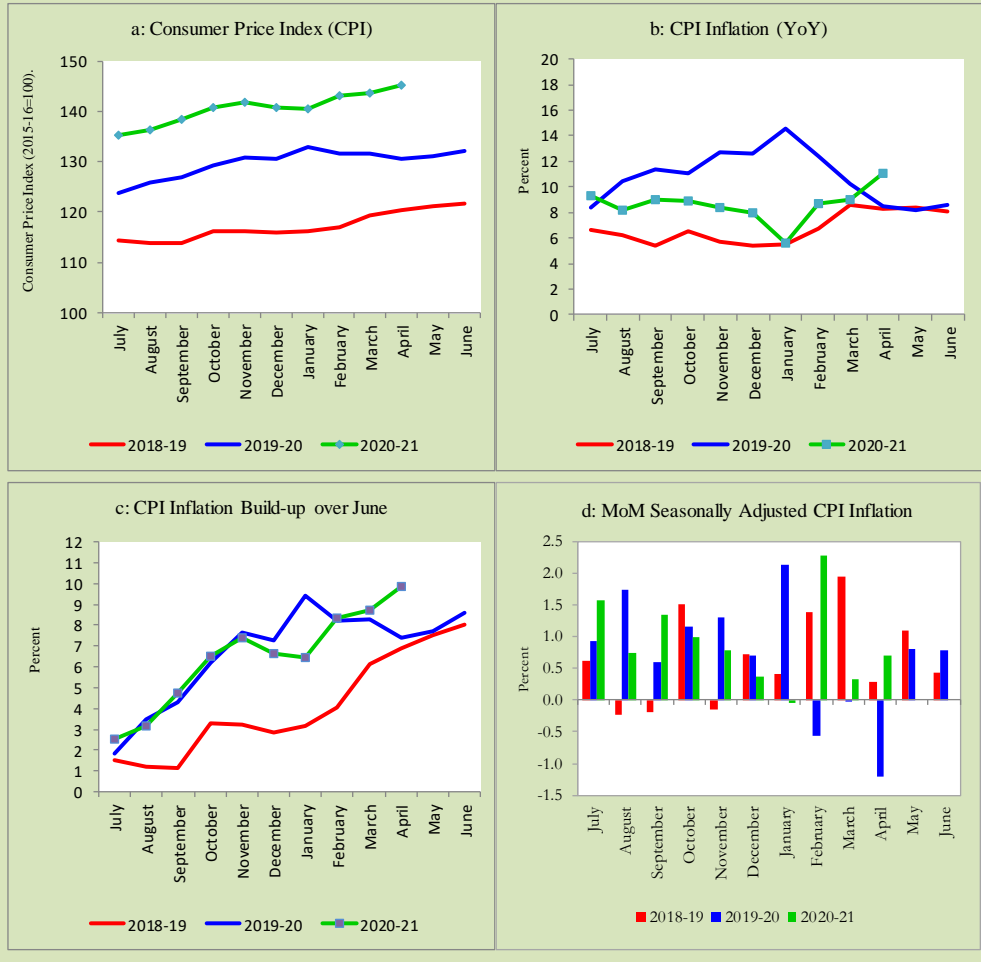




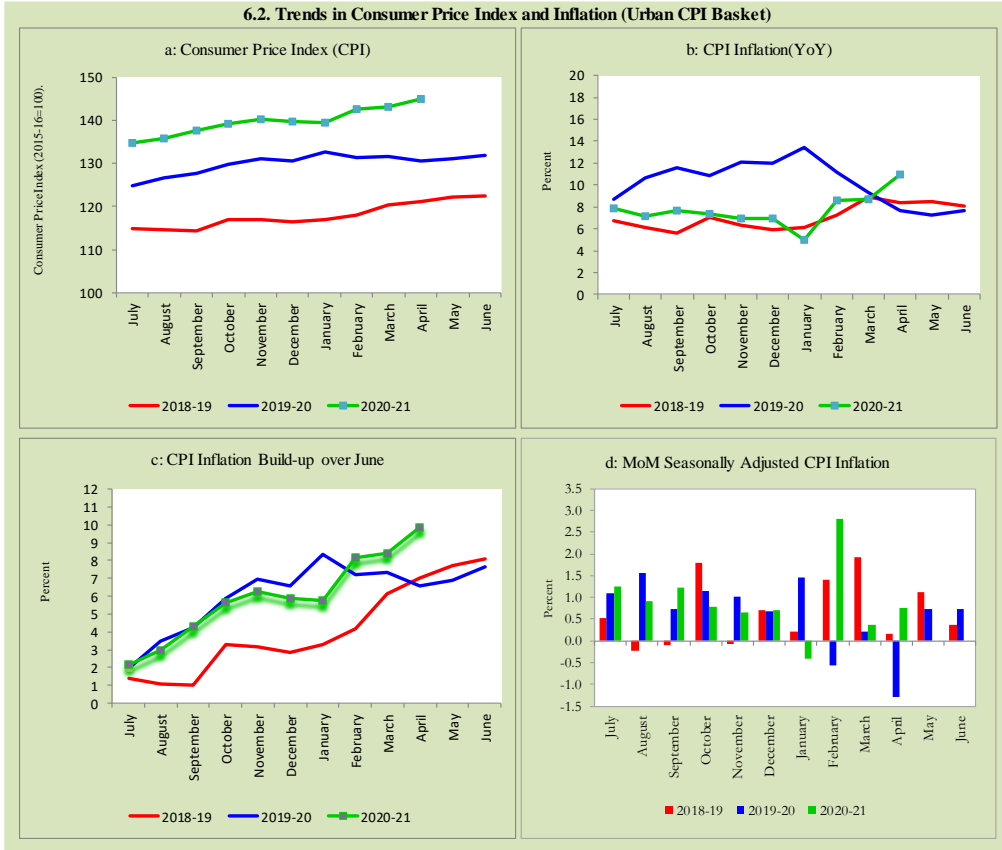
6. Trends in Consumer Price Indices and Inflation

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).

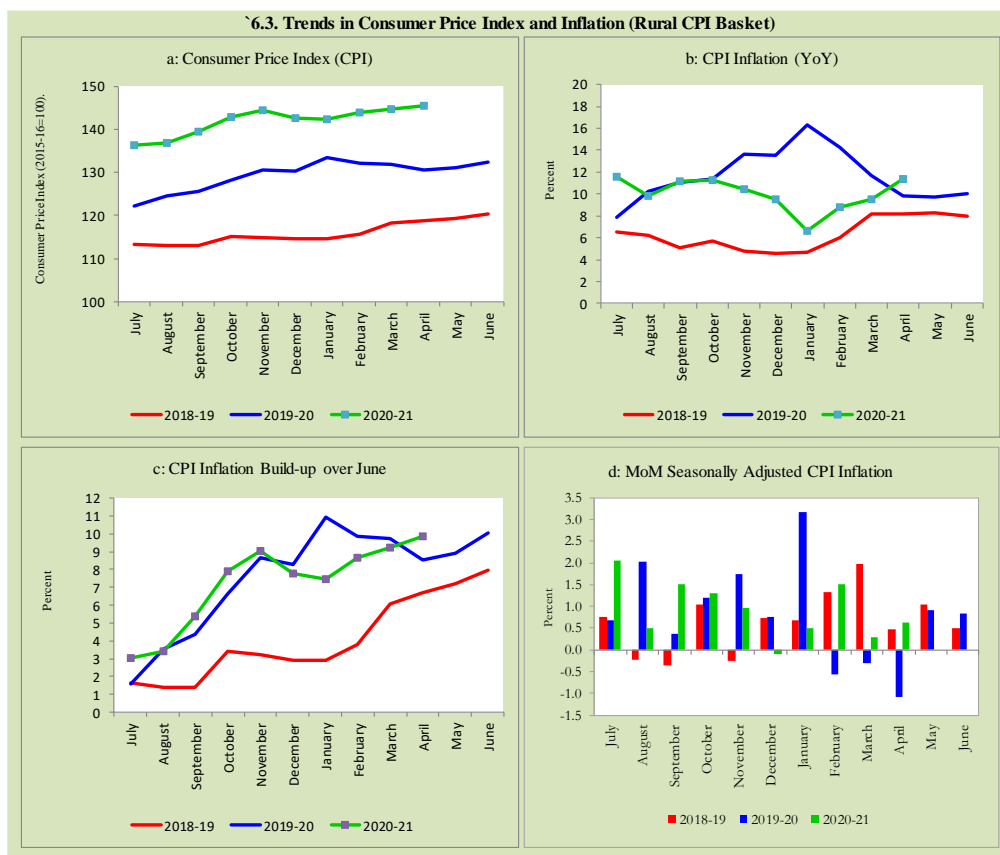
6.1. Trends in Consumer Price Index and Inflation (National CPI)



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 52.4 percent during April 2021 from 48.2 percent in previous month. It was 48.3 percent during corresponding month of last year. The weighted contribution of non-food group decreased to 47.6 percent in April 2021 from 51.7 percent in previous month and corresponding month of last year. Table 7.1 provide the historical perspective of weighted contribution of food group and non-food group and their respective sub-indexes (Perishable food, Non-Perishable food, Energy, Core Inflation (NFNE), NFNE excluding HRI and HRI) in the overall inflation for urban basket.

Figure 7.1 provides a graphical presentation of composition of YoY urban CPI inflation cascaded in food group and non-food groups and their respective sub-indexes.

Table 7.1 Weighted Contribution (in percent) to Urban CPI Inflation (YoY)									
Period	Overall CPI	Food Group			Non-Food Group				
		Food	Perishable food	Non-Perishable food	Non-food	Energy	Core Inflation (NFNE)	NFNE excl HRI	HRI
	a=(b+e)	b=(c+d)	c	d	e=(f+g)	f	g=(h+i)	h	i
Apr-20	100	48.3	5.8	42.5	51.7	5.9	45.8	35.0	10.8
May-20	100	52.2	1.0	51.1	47.8	0.7	47.1	35.8	11.4
Jun-20	100	60.0	2.6	57.4	40.0	-6.5	46.4	35.7	10.8
Jul-20	100	68.0	12.3	55.7	32.1	-4.7	36.7	26.0	10.7
Aug-20	100	56.8	2.6	54.2	43.2	1.2	42.0	30.5	11.6
Sep-20	100	58.8	9.1	49.7	41.2	2.8	38.4	27.8	10.7
Oct-20	100	68.7	5.5	63.2	31.3	-8.9	40.2	28.1	12.0
Nov-20	100	68.7	4.3	64.3	31.3	-11.0	42.4	29.8	12.6
Dec-20	100	65.5	0.3	65.2	34.5	-8.1	42.6	30.0	12.6
Jan-21	100	53.2	-20.1	73.2	46.9	-9.6	56.5	38.7	17.8
Feb-21	100	43.6	-8.6	52.2	56.4	16.6	39.8	29.2	10.5
Mar-21	100	48.2	-8.7	56.9	51.7	13.3	38.4	28.1	10.4
Apr-21	100	52.4	2.1	50.4	47.6	13.0	34.6	23.7	10.9

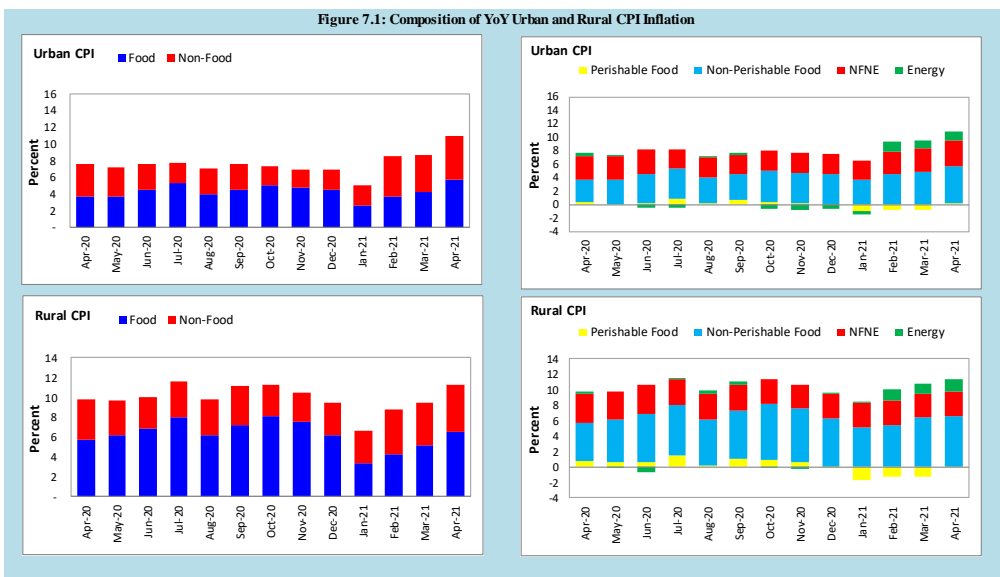
Note: The weighted contribution of sub-indexes may not exactly tally with the weighted contribution of overall CPI index due to rounding off

For rural basket, the weighted contribution of food group in the overall rural CPI inflation also increased to 57.6 percent during April 2021 from 54.4 percent in previous month. It was 58.8 percent during corresponding month of last year. The weighted contribution of non-food group decreased to 42.3 percent in April 2021 from 45.5 percent in previous month. Non-food group was 41.2 percent during corresponding month of last year. Table 7.2 provide the historical perspective of weighted contribution of food group (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. Figure 7.1 provides a graphical display of composition of YoY rural CPI inflation distributed in food group and non-food groups and their respective sub-indexes.

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
Apr-20	100	58.8	8.2	50.6	41.2	3.8	37.5	32.8	4.7
May-20	100	63.8	7.0	56.9	36.2	-1.6	37.8	33.0	4.7
Jun-20	100	68.2	6.3	61.9	31.8	-6.2	38.0	33.4	4.5
Jul-20	100	69.3	12.9	56.4	30.7	1.4	29.3	25.5	3.8
Aug-20	100	62.4	2.3	60.1	37.6	4.2	33.4	29.0	4.4
Sep-20	100	65.2	9.7	55.5	34.8	5.0	29.9	26.0	3.8
Oct-20	100	72.2	8.8	63.4	27.8	-0.8	28.4	24.7	3.9
Nov-20	100	72.2	5.7	66.5	27.8	-1.8	29.5	25.4	4.1
Dec-20	100	65.5	-1.2	66.7	34.5	0.7	33.8	29.2	4.6
Jan-21	100	51.3	-26.7	78.0	48.9	0.3	48.7	41.3	7.4
Feb-21	100	47.9	-13.6	61.6	52.1	15.7	36.4	30.8	5.6
Mar-21	100	54.4	-13.1	67.5	45.5	13.0	32.5	27.3	5.2
Apr-21	100	57.6	0.3	57.4	42.3	13.2	29.1	24.1	5.0

Note: The weighted contribution of sub-indexes 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

	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21
General	19.9	30.1	41.0	55.3	55.3	63.2	57.0	50.8	41.9	53.4	59.8	56.2	43.3
Food & Non-Alcoholic Beverages	26.7	4.4	34.4	42.2	22.2	62.2	51.1	28.9	-1.1	44.4	47.8	54.4	24.4
Alcoholic Beverages & Tobacco	100.0	66.7	66.7	66.7	100.0	66.7	33.3	66.7	-33.3	33.3	66.7	33.3	33.3
Clothing & Footwear	10.0	67.5	57.5	67.5	65.0	72.5	75.0	75.0	72.5	65.0	85.0	70.0	67.5
Housing, Water, Elect, Gas & other Fuels	24.1	17.2	10.3	27.6	41.4	6.9	6.9	6.9	51.7	6.9	31.0	17.2	20.7
Furnishing & Household Equip. Maintenance etc.	19.0	61.9	90.5	81.0	95.2	88.1	85.7	85.7	81.0	92.9	90.5	92.9	73.8
Health	35.5	38.7	38.7	74.2	83.9	77.4	64.5	67.7	54.8	71.0	90.3	87.1	77.4
Transport	-6.3	15.6	3.1	46.9	50.0	40.6	40.6	31.3	40.6	43.8	50.0	28.1	18.8
Communication	0.0	20.0	-20.0	20.0	0.0	20.0	40.0	40.0	20.0	40.0	20.0	20.0	40.0
Recreation & Culture	12.0	20.0	24.0	60.0	52.0	68.0	48.0	64.0	48.0	32.0	36.0	28.0	12.0
Education	0.0	0.0	0.0	0.0	18.8	68.8	43.8	12.5	0.0	18.8	6.3	0.0	31.3
Restaurant & Hotels	14.3	57.1	71.4	64.3	78.6	78.6	85.7	85.7	78.6	71.4	71.4	85.7	57.1
Miscellaneous	37.9	41.4	72.4	86.2	93.1	75.9	75.9	75.9	65.5	79.3	75.9	75.9	65.5
NFNE	19.6	40.4	43.8	60.9	66.4	68.5	63.8	62.6	55.3	59.1	63.8	63.0	57.0

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

	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21
General	23.4	32.4	28.7	60.7	49.2	55.3	58.2	37.7	34.8	39.3	45.5	46.7	35.2
Food & Non-Alcoholic Beverages	25.3	8.9	17.7	48.1	15.2	51.9	54.4	10.1	1.3	29.1	24.1	54.4	15.2
Alcoholic Beverages & Tobacco	60.0	20.0	60.0	100.0	100.0	80.0	60.0	20.0	20.0	40.0	40.0	-20.0	40.0
Clothing & Footwear	0.0	85.2	48.1	85.2	66.7	59.3	66.7	85.2	77.8	59.3	59.3	81.5	55.6
Housing, Water, Elect, Gas & other Fuels	34.8	17.4	0.0	52.2	65.2	26.1	26.1	17.4	39.1	30.4	56.5	-17.4	17.4
Furnishing & Household Equip. Maintenance etc.	23.1	53.8	65.4	88.5	88.5	69.2	84.6	42.3	69.2	46.2	88.5	88.5	61.5
Health	42.9	50.0	35.7	57.1	50.0	85.7	42.9	64.3	42.9	57.1	78.6	57.1	64.3
Transport	-6.3	0.0	18.8	43.8	62.5	31.3	43.8	18.8	37.5	31.3	50.0	31.3	18.8
Communication	0.0	0.0	0.0	0.0	20.0	20.0	20.0	40.0	0.0	0.0	0.0	20.0	20.0
Recreation & Culture	22.2	11.1	5.6	44.4	33.3	61.1	72.2	33.3	44.4	22.2	22.2	16.7	44.4
Education	0.0	0.0	0.0	0.0	0.0	60.0	100.0	0.0	0.0	20.0	20.0	0.0	80.0
Restaurant & Hotels	28.6	64.3	57.1	64.3	57.1	50.0	71.4	78.6	64.3	42.9	42.9	21.4	42.9
Miscellaneous	41.2	70.6	35.3	88.2	88.2	82.4	76.5	82.4	35.3	76.5	52.9	64.7	58.8
NFNE	24.3	50.0	36.0	66.2	62.5	64.0	64.7	55.9	47.1	47.8	54.4	53.7	55.9

See annexure B (Technical Notes) for the methodology of Inflation Diffusion Index.

9. Domestic Commodity Prices

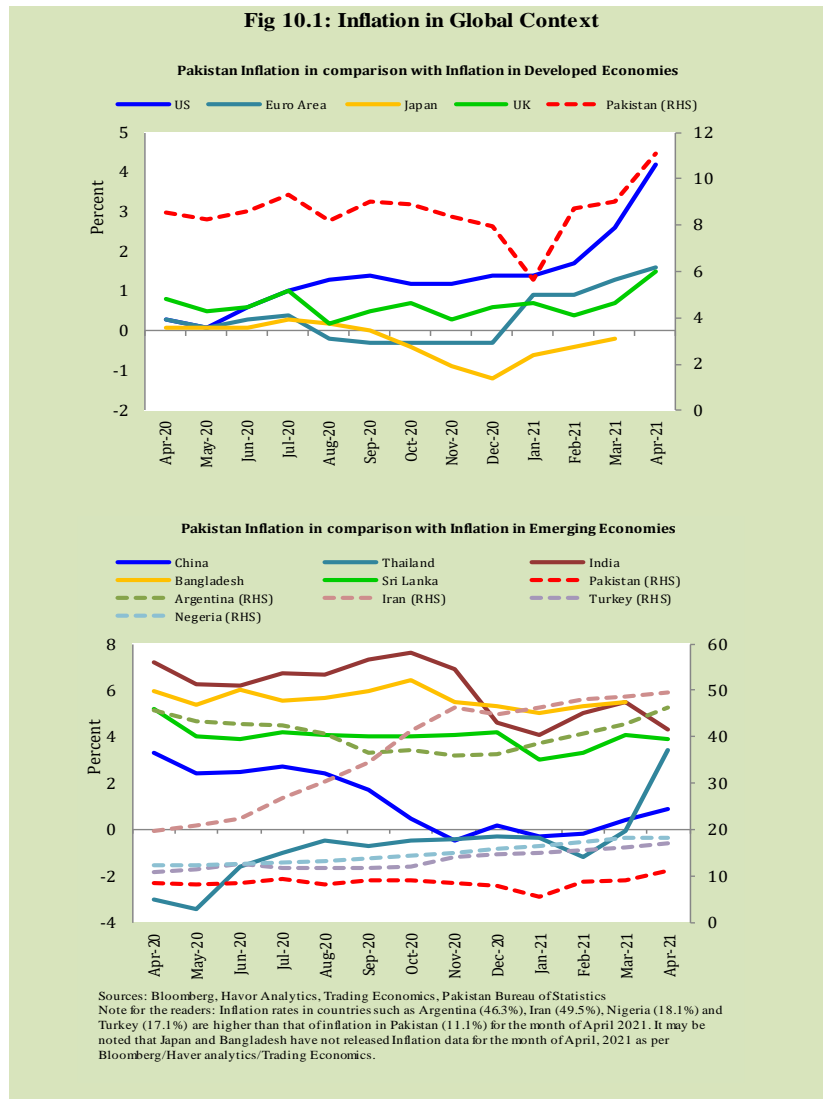
Inflation in domestic food commodities (YoY and MoM in percent) for selected essential food items covering both urban and rural CPI baskets is given in table 9.1.

Table 9.1 Inflation in Domestic Urban and Rural CPI Food Commodities (in percent) - April 2021						
S. No	Item	Unit	Urban CPI		Rural CPI	
			YoY	MoM	YoY	MoM
1	Wheat	10 Kg	27.0	-9.1	24.5	-10.2
2	Wheat Flour Bag	20 Kg	12.2	-1.0	16.9	-1.3
3	Rice Basmati Broken (Superior/Average Quality) *	1 Kg	0.6	-1.2	14.4	1.1
4	Beef with Bone (Average Quality)	1 Kg	9.2	1.7	10.8	1.6
5	Mutton (Average Quality)	1 Kg	11.2	1.6	10.9	1.6
6	Chicken Farm Broiler (Live)	1 Kg	93.1	7.3	85.1	-1.1
7	Milk Fresh (Un-Boiled)	1 Litre	21.6	0.7	13.5	0.3
8	Eggs Farm	Dozen	42.4	-0.8	46.1	0.8
9	Vegetable Ghee Dalda/Habib Or Other Superior Quality 1 Kg Pouch	Each	22.9	2.3	22.0	2.1
10	Pulse Masoor (Washed)	1 Kg	-10.2	-0.3	-2.3	-2.6
11	Pulse Moong (Washed)	1 Kg	-16.6	-1.6	-14.7	-1.7
12	Pulse Mash (Washed)	1 Kg	5.7	0.8	7.6	0.0
13	Pulse Gram	1 Kg	-7.1	-0.7	-3.2	-0.4
14	Potatoes	1 Kg	9.6	16.4	12.3	12.4
15	Onions	1 Kg	-39.6	-8.3	-43.5	-14.5
16	Tomatoes	1 Kg	81.5	67.7	60.0	55.5
17	Sugar Refined	1 Kg	18.2	-1.8	16.5	-3.1
18	Garlic (Lehsun)	1 Kg	-36.4	-14.8	-28.9	-10.6
19	Ginger (Adrak)	500 Gm	6.7	17.2	3.8	14.3
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.

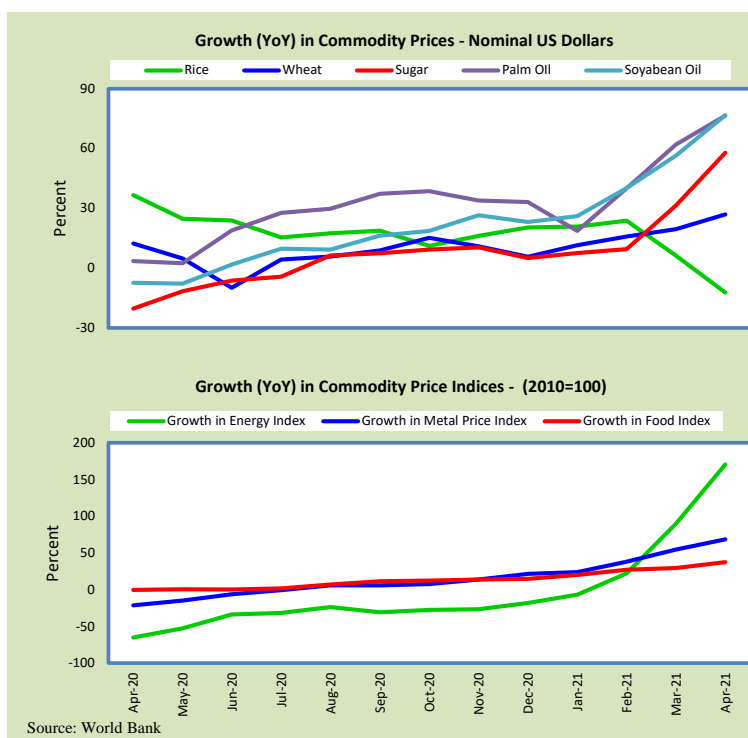


11. Global Commodity Prices

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

Table 11.1 Changes in Major Global Indices (percent)

Item/ Group	Apr-20		Mar-21		Apr-21	
	YoY	MoM	YoY	MoM	YoY	MoM
Food	-0.4	-2.7	29.4	-1.1	29.4	-1.1
Metals	-21.4	-4.6	54.7	3.8	54.7	3.8
Energy	-65.1	-30.2	89.7	0.7	89.7	0.7
Agricultural	-2.1	-2.1	23.9	-0.7	23.9	-0.7
Cotton	-27.2	-6.1	35.1	-1.4	35.1	-1.4



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 April 2021 has been used for seasonal adjustment analysis. The seasonal analysis is carried out without taking trading-day or Islamic calendar month's effects.

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

Fig. 12.1 (a) Seasonal Factors of National CPI

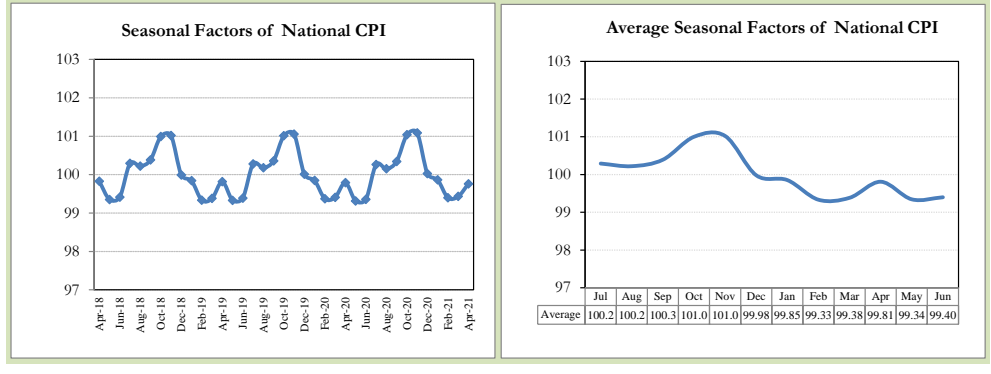


Fig. 12.1 (b) Seasonal Factors of Urban CPI

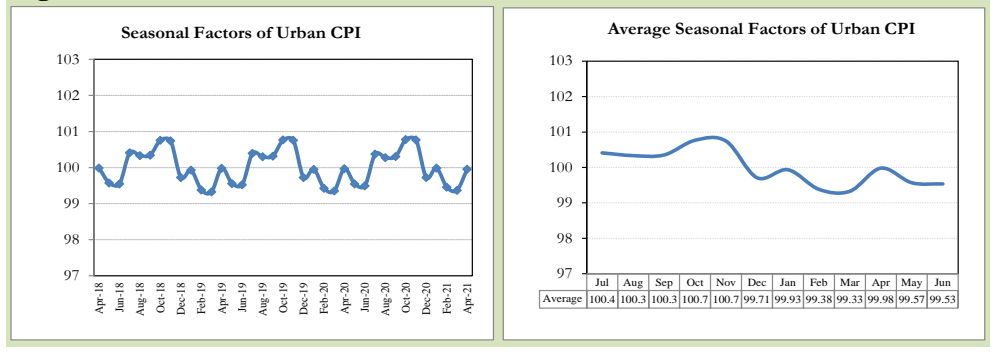
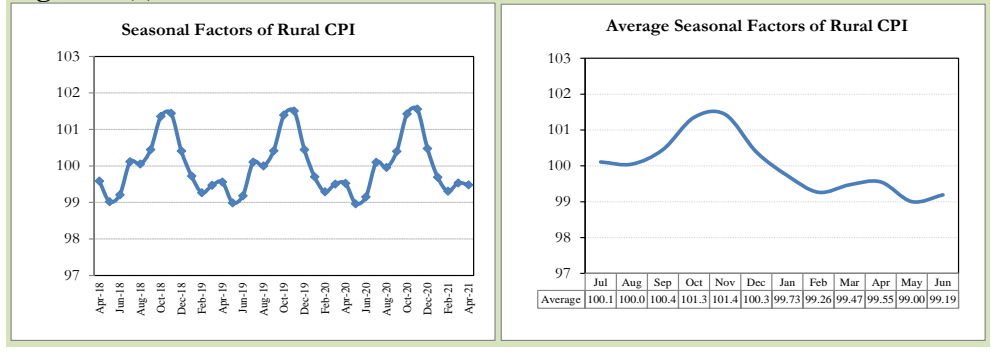


Fig. 12.1 (c) Seasonal Factors of Rural CPI



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.

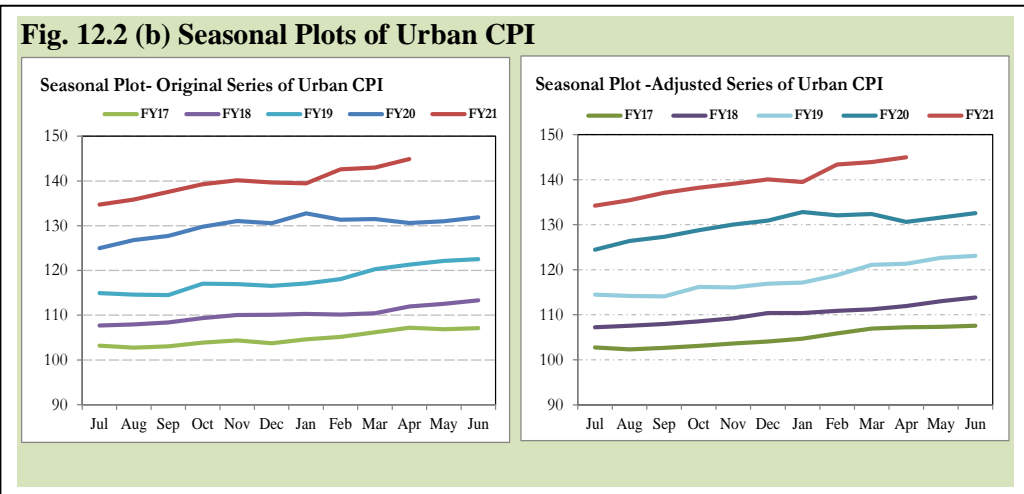
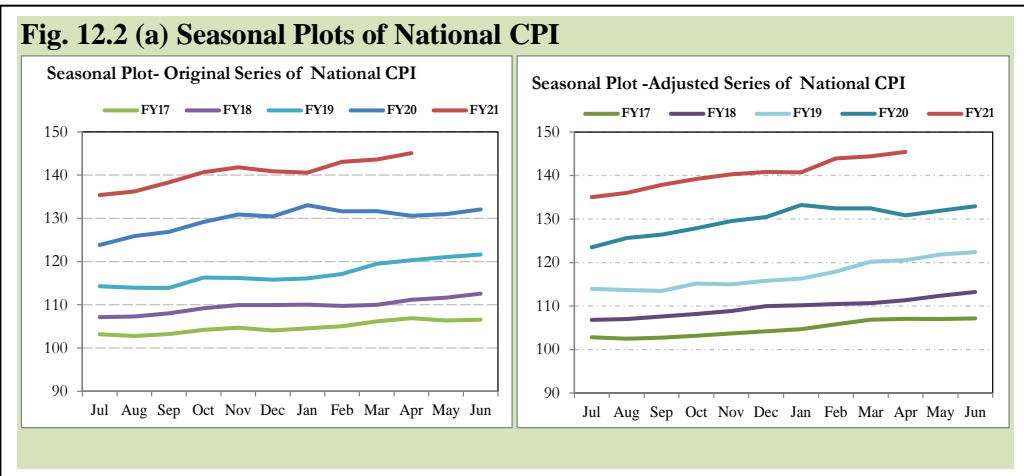
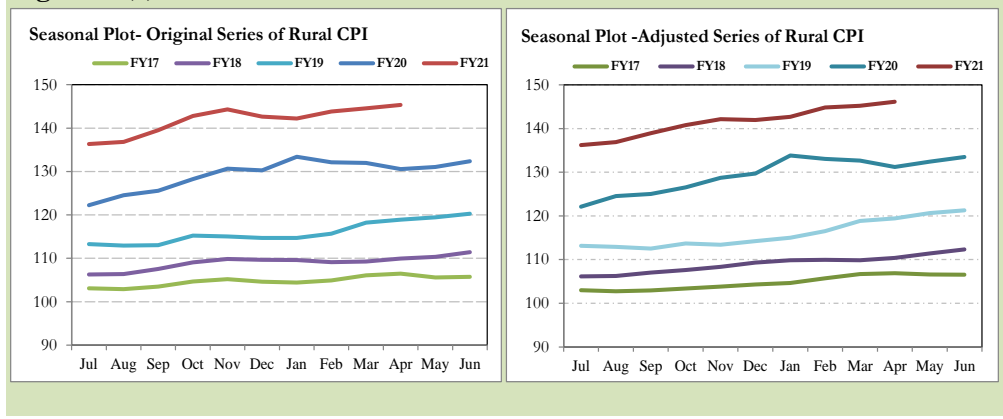


Fig. 12.2 (c) Seasonal Plots of Rural CPI



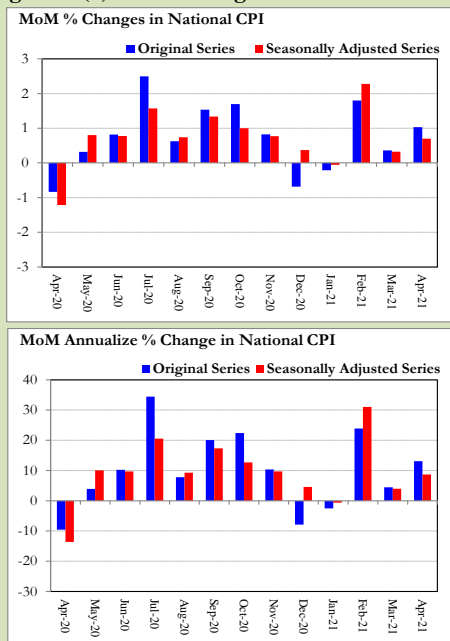
Seasonally adjusted National CPI for April 2021 stood at 145.44 against 145.09 in original series showing an increase of 0.35 on account of adjustment of downward seasonality in April 2021.

Seasonally adjusted Urban CPI for April 2021 stood at 144.91 against 144.98 in original series showing an increase of 0.07 on account of adjustment of downward seasonality in April 2021.

Seasonally adjusted Rural CPI for April 2021 stood at 145.37 against 146.13 in original series showing an increase of 0.76 on account of adjustment of downward seasonality in April 2021.

Month-on-month change of seasonally adjusted National CPI series stood at 0.70% reflecting an increase during April 2021 over previous month and an

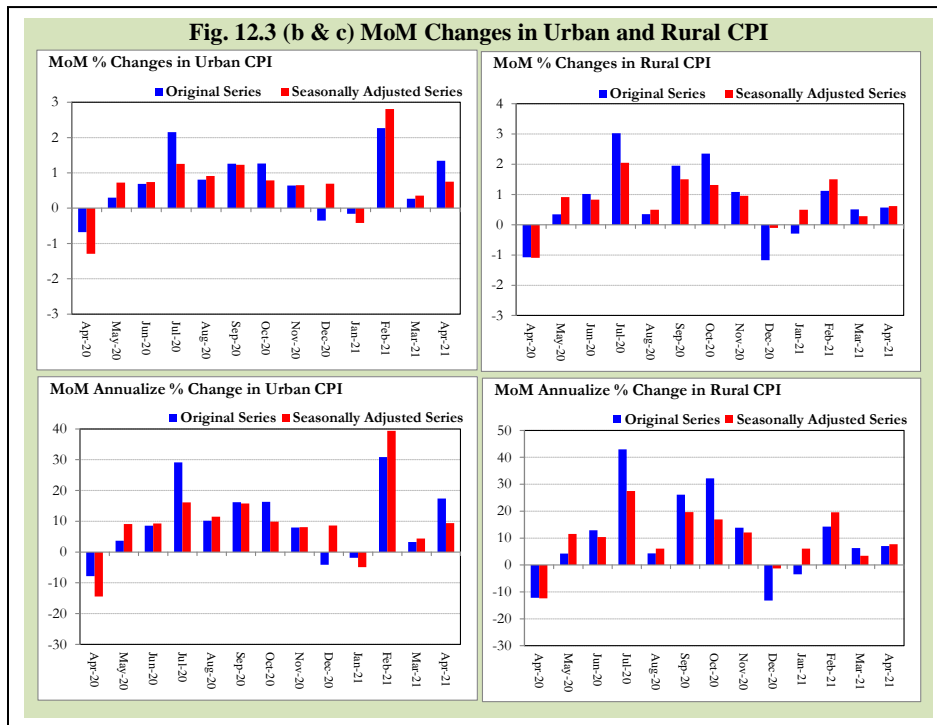
Fig. 12.3 (a) MoM Changes in National CPI



increase of 1.03% in original series.

Month-on-month change of seasonally adjusted Urban CPI series stood at 0.75% reflecting an increase during April 2021 over previous month and an increase of 1.34% in original series.

Month-on-month change of seasonally adjusted Rural CPI series stood at 0.62% reflecting an increase during April 2021 over previous month and an increase of 0.57% in original series.



It is pertinent to note that in case of MoM inflation, seasonally adjusted rates provide important information. The most recent annual rate of inflation is usually indicated by annualizing the seasonally adjusted month-on-month rate. Annualized rate of National CPI inflation in April 2021 (corresponding to the seasonally adjusted month-on-month rate) is 8.71 percent.

Annexure A

Table A1: National CPI Inflation by Groups (YoY and MoM in percent)							
	Weights	MoM change			YoY change		
		Apr-20	Mar-21	Apr-21	Apr-20	Mar-21	Apr-21
Food & Non-Alcoholic Beverages	34.6	-1.6	1.7	2.2	11.7	11.6	15.9
Alcoholic Beverages & Tobacco	1.0	0.8	0.3	-0.1	19.6	5.9	4.9
Clothing & Footwear	8.6	0.0	1.0	1.0	10.2	10.7	11.9
Housing, Water, Elec, Gas & other Fuels	23.6	-0.3	-1.7	0.5	5.1	8.8	9.7
Furnishing & Household Equip. Maintenance etc	4.1	0.3	1.0	0.9	9.0	8.9	9.4
Health	2.8	0.4	0.7	0.5	10.5	8.8	9.0
Transport	5.9	-4.5	-0.7	-1.2	3.4	2.9	6.5
Communication	2.2	0.0	0.0	1.0	1.7	0.6	1.5
Recreation & Culture	1.6	0.1	0.3	0.1	5.1	4.6	4.6
Education	3.8	0.0	0.0	0.5	3.2	1.0	1.6
Restaurants & Hotels	6.9	0.1	0.7	0.2	8.5	8.1	8.2
Miscellaneous	4.9	1.0	-0.5	0.4	11.9	10.6	10.0
Overall National CPI	100.0	-0.8	0.4	1.0	8.5	9.1	11.1

Table A2: Urban CPI Inflation by Groups (YoY and MoM in percent)							
	Weights	MoM change			YoY change		
		Apr-20	Mar-21	Apr-21	Apr-20	Mar-21	Apr-21
I. Food Group	36.8	-1.0	1.7	2.7	10.4	11.5	15.7
Food & Non-Alcoholic Beverages	30.4	-1.3	1.8	3.2	10.7	11.9	17.0
Alcoholic Beverages & Tobacco	0.9	0.9	0.6	0.1	18.8	6.9	6.0
Restaurant & Hotels (Food Component)	5.5	0.0	1.4	0.3	7.7	10.1	10.4
II. Non-Food Group	63.2	-0.5	-0.6	0.5	6.2	7.1	8.2
Clothing & Footwear	8.0	0.0	0.7	1.1	9.5	11.5	12.7
Housing, Water, Elec, Gas & other Fuels	27.0	-0.2	-1.6	0.7	5.1	8.2	9.3
Furnishing & Household Equip. Maintenance etc	4.1	0.2	0.9	0.8	8.3	7.9	8.6
Health	2.3	0.0	1.1	0.5	9.4	8.9	9.4
Transport	6.1	-4.5	-0.7	-1.2	4.1	3.2	6.8
Communication	2.4	0.0	0.0	1.3	2.3	0.7	1.9
Recreation & Culture	1.7	0.1	0.3	0.0	4.9	3.3	3.2
Education	4.9	0.0	0.0	0.3	3.4	0.9	1.2
Restaurants & Hotels (Non-food Component)	1.9	0.0	0.2	0.0	6.5	3.2	3.2
Miscellaneous	4.8	1.0	-0.3	0.6	11.0	10.3	9.8
Overall Urban CPI	100.0	-0.7	0.3	1.3	7.7	8.7	11.0

	Weights	MoM change			YoY change		
		Apr-20	Mar-21	Apr-21	Apr-20	Mar-21	Apr-21
I. Food Group	45.9	-1.7	1.5	0.9	12.9	11.1	14.1
Food & Non-Alcoholic Beverages	40.9	-2.0	1.7	1.0	12.8	11.2	14.7
Alcoholic Beverages & Tobacco	1.3	0.7	0.0	-0.4	20.4	4.8	3.7
Restaurant & Hotels (Food Component)	3.8	0.5	0.1	0.3	11.0	11.9	11.6
II. Non-Food Group	54.1	-0.5	-0.4	0.3	7.4	8.1	8.9
Clothing & Footwear	9.5	0.0	1.3	1.0	11.0	9.7	10.8
Housing, Water, Elec, Gas & other Fuels	18.5	-0.5	-1.8	0.0	5.2	10.1	10.7
Furnishing & Household Equip. Maintenance etc.	4.1	0.5	1.2	0.9	10.1	10.3	10.8
Health	3.5	0.7	0.3	0.5	11.6	8.8	8.6
Transport	5.6	-4.5	-0.6	-1.2	2.3	2.4	6.1
Communication	2.0	0.0	0.0	0.4	0.8	0.4	0.8
Recreation & Culture	1.4	0.3	0.2	0.2	5.4	7.0	7.0
Education	2.1	0.0	0.0	1.4	2.5	1.5	2.9
Restaurants & Hotels (Non-food Component)	2.4	0.0	0.0	0.0	9.4	0.6	0.6
Miscellaneous	5.0	0.9	-0.7	0.2	13.2	11.1	10.3
Overall Rural CPI	100.0	-1.1	0.5	0.6	9.8	9.5	11.3

Table A4: Top Ten Contributors to Urban CPI Inflation (YoY) in April 2021					
Items/ Contributors	Weights	YoY Change		Weighted Contribution (%)	
		Apr-20	Apr-21		
A. Ranked by Weighted Contribution					
1	Milk Fresh	7.11	3.89	20.37	11.78
2	House Rent	19.26	4.20	6.21	10.86
3	Electricity Charges	4.56	-5.88	29.06	10.00
4	Chicken	1.36	-28.76	93.14	8.52
5	Readymade Food	5.52	7.65	10.39	5.17
6	Condiments And Spices	1.33	23.16	31.62	4.73
7	Wheat Flour	3.01	14.82	16.92	4.15
8	Cotton Cloth	2.22	10.31	16.56	3.31
9	Appliances/Articles/Products For P	2.98	8.24	11.24	2.99
10	Motor Fuel	2.91	0.41	9.10	2.56
Total		50.26			64.07
B. Ranked by Percentage Change					
1	Chicken	1.36	-28.76	93.14	8.52
2	Tomatoes	0.35	-55.44	81.49	1.34
3	Eggs	0.51	44.16	42.41	2.02
4	Condiments And Spices	1.33	23.16	31.62	4.73
5	Electricity Charges	4.56	-5.88	29.06	10.00
6	Wheat Products	0.09	15.53	28.84	0.23
7	Wheat	0.61	16.76	26.99	1.40
8	Mustard Oil	0.01	16.99	24.44	0.03
9	Vegetable Ghee	1.03	26.31	21.05	2.29
10	Milk Fresh	7.11	3.89	20.37	11.78
Total		16.96			42.33
C. Ranked by Weights					
1	House Rent	19.26	4.20	6.21	10.86
2	Milk Fresh	7.11	3.89	20.37	11.78
3	Readymade Food	5.52	7.65	10.39	5.17
4	Education	4.88	3.42	1.19	0.59
5	Electricity Charges	4.56	-5.88	29.06	10.00
6	Wheat Flour	3.01	14.82	16.92	4.15
7	Appliances/Articles/Products For P	2.98	8.24	11.24	2.99
8	Motor Fuel	2.91	0.41	9.10	2.56
9	Cotton Cloth	2.22	10.31	16.56	3.31
10	Meat	2.04	13.75	10.07	2.09
Total		54.48			53.50
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 11.0 percent in April 2021.					

Table A5: Top Ten Contributors to Urban CPI Inflation (MoM) in April 2021					
Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Mar-21	Apr-21		
A. Ranked by Weighted Contribution					
1	Fresh Vegetables	1.53	-1.48	29.55	28.08
2	House Rent	19.26	0.00	1.64	22.36
3	Fresh Fruits	1.44	10.00	22.32	21.78
4	Tomatoes	0.35	4.67	67.70	8.97
5	Chicken	1.36	6.58	7.31	8.97
6	Potatoes	0.45	9.54	15.81	6.06
7	Tailoring	1.07	0.35	4.50	3.61
8	Milk Fresh	7.11	0.77	0.68	3.48
9	Cooking Oil	1.10	0.06	2.99	2.91
10	Meat	2.04	0.77	1.64	2.74
					35.71
					108.97
B. Ranked by Percentage Change					
1	Tomatoes	0.35	4.67	67.70	8.97
2	Fresh Vegetables	1.53	-1.48	29.55	28.08
3	Fresh Fruits	1.44	10.00	22.32	21.78
4	Potatoes	0.45	9.54	15.81	6.06
5	Chicken	1.36	6.58	7.31	8.97
6	Tailoring	1.07	0.35	4.50	3.61
7	Cooking Oil	1.10	0.06	2.99	2.91
8	Vegetable Ghee	1.03	0.54	2.01	1.94
9	Household Equipments	1.00	1.46	1.79	1.30
10	Bakery And Confectionary	0.48	0.10	1.75	0.62
					9.81
					84.23
C. Ranked by Weights					
1	House Rent	19.26	0.00	1.64	22.36
2	Milk Fresh	7.11	0.77	0.68	3.48
3	Readymade Food	5.52	1.38	0.26	1.06
4	Education	4.88	0.00	0.31	1.14
5	Electricity Charges	4.56	-8.05	-1.89	-6.36
6	Wheat Flour	3.01	1.46	-1.94	-4.23
7	Appliances/Articles/Products For P	2.98	0.55	0.97	2.11
8	Motor Fuel	2.91	0.01	-1.52	-3.55
9	Cotton Cloth	2.22	1.77	0.64	1.10
10	Meat	2.04	0.77	1.64	2.74
					54.48
					19.87
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 1.3 percent in April 2021.					

Table A6: Top and Bottom Fifteen Contributors to Urban CPI Inflation (YoY) in April 2021					
Top 15 Contributors		Weights	YoY Change		Weighted Contribution (%)
Items/ Contributors	Apr-20		Apr-21		
Ranked by Weighted Contribution					
1	Milk Fresh	7.11	3.89	20.37	11.78
2	House Rent	19.26	4.20	6.21	10.86
3	Electricity Charges	4.56	-5.88	29.06	10.00
4	Chicken	1.36	-28.76	93.14	8.52
5	Readymade Food	5.52	7.65	10.39	5.17
6	Condiments And Spices	1.33	23.16	31.62	4.73
7	Wheat Flour	3.01	14.82	16.92	4.15
8	Cotton Cloth	2.22	10.31	16.56	3.31
9	Appliances/Articles/Products For P	2.98	8.24	11.24	2.99
10	Motor Fuel	2.91	0.41	9.10	2.56
11	Vegetable Ghee	1.03	26.31	21.05	2.29
12	Footwear	1.48	11.49	16.24	2.18
13	Cooking Oil	1.10	22.21	19.23	2.17
14	Meat	2.04	13.75	10.07	2.09
15	Eggs	0.51	44.16	42.41	2.02
Total		56.42			74.81
Bottom 15 Contributors					
1	Onions	0.59	40.72	-39.57	-2.16
2	Pulse Moong	0.17	101.10	-16.57	-0.35
3	Pulse Masoor	0.16	47.67	-10.20	-0.14
4	Pulse Gram	0.17	31.22	-7.13	-0.11
5	Besan	0.08	29.01	-5.61	-0.04
6	Gram Whole	0.09	12.52	-3.00	-0.03
7	Newspapers	0.07	0.00	0.00	0.00
8	Motor Vehicle Tax	0.05	2.19	0.00	0.00
9	Gas Charges	1.08	54.84	0.00	0.00
10	Therapeutic Appliances And	0.01	0.80	8.77	0.00
11	Carpets	0.03	5.36	1.91	0.00
12	Tea	0.84	9.54	0.06	0.01
13	Electrical Appliances For Personal	0.05	1.97	1.46	0.01
14	Accommodation Services	0.13	0.46	0.71	0.01
15	Major Tools & Equipments	0.01	9.24	15.06	0.01
Total		3.53			-2.79

Table A7: Top and Bottom Fifteen Contributors to Urban CPI Inflation (MoM) in April 2021					
Top 15 Contributors		MoM Change		Weighted Contribution (%)	
Items/ Contributors	Weights	Mar-21	Apr-21		
Ranked by Weighted Contribution					
1	Fresh Vegetables	1.53	-1.48	29.55	28.08
2	House Rent	19.26	0.00	1.64	22.36
3	Fresh Fruits	1.44	10.00	22.32	21.78
4	Tomatoes	0.35	4.67	67.70	8.97
5	Chicken	1.36	6.58	7.31	8.97
6	Potatoes	0.45	9.54	15.81	6.06
7	Tailoring	1.07	0.35	4.50	3.61
8	Milk Fresh	7.11	0.77	0.68	3.48
9	Cooking Oil	1.10	0.06	2.99	2.91
10	Meat	2.04	0.77	1.64	2.74
11	Condiments And Spices	1.33	-0.33	1.54	2.23
12	Appliances/Articles/Products For P	2.98	0.55	0.97	2.11
13	Vegetable Ghee	1.03	0.54	2.01	1.94
14	Communication Services	1.88	0.00	1.62	1.69
15	Household Equipments	1.00	1.46	1.79	1.30
Total		43.94			118.23
Bottom 15 Contributors					
1	Electricity Charges	4.56	-8.05	-1.89	-6.36
2	Wheat	0.61	-0.02	-9.14	-4.93
3	Wheat Flour	3.01	1.46	-1.94	-4.23
4	Motor Fuel	2.91	0.01	-1.52	-3.55
5	Transport Services	1.75	-3.00	-2.01	-2.33
6	Onions	0.59	-2.37	-8.33	-2.24
7	Sugar	1.11	4.82	-1.83	-1.68
8	Liquefied Hydrocarbons	0.51	-6.84	-3.80	-1.47
9	Eggs	0.51	12.96	-0.76	-0.39
10	Pulse Moong	0.17	1.30	-1.59	-0.21
11	Solid Fuel	0.42	-0.28	-0.37	-0.10
12	Pulse Gram	0.17	4.39	-0.70	-0.08
13	Rice	1.18	1.61	-0.08	-0.07
14	Fish	0.39	-1.78	-0.19	-0.04
15	Wheat Products	0.09	0.46	-0.43	-0.03
Total		17.97			-27.69

Table A8: Top and Bottom Fifteen Contributors to MoM Urban CPI Food Inflation in April 2021					
Top 15 Contributors		Weights	MoM Change		Weighted Contribution (%)
Items/ Contributors	Mar-21		Apr-21		
Ranked by Weighted Contribution					
1	Fresh Vegetables	1.53	-1.48	29.55	28.08
2	Fresh Fruits	1.44	10.00	22.32	21.78
3	Tomatoes	0.35	4.67	67.70	8.97
4	Chicken	1.36	6.58	7.31	8.97
5	Potatoes	0.45	9.54	15.81	6.06
6	Milk Fresh	7.11	0.77	0.68	3.48
7	Cooking Oil	1.10	0.06	2.99	2.91
8	Meat	2.04	0.77	1.64	2.74
9	Condiments And Spices	1.33	-0.33	1.54	2.23
10	Vegetable Ghee	1.03	0.54	2.01	1.94
11	Readymade Food	5.52	1.38	0.26	1.06
12	Bakery And Confectionary	0.48	0.10	1.75	0.62
13	Milk Products	0.64	1.29	1.03	0.49
14	Beverages	0.89	1.80	0.40	0.24
15	Sweet Meat	0.35	0.13	0.39	0.11
Total		25.63			89.68
Bottom 15 Contributors					
1	Wheat	0.61	-0.02	-9.14	-4.93
2	Wheat Flour	3.01	1.46	-1.94	-4.23
3	Onions	0.59	-2.37	-8.33	-2.24
4	Sugar	1.11	4.82	-1.83	-1.68
5	Eggs	0.51	12.96	-0.76	-0.39
6	Pulse Moong	0.17	1.30	-1.59	-0.21
7	Pulse Gram	0.17	4.39	-0.70	-0.08
8	Rice	1.18	1.61	-0.08	-0.07
9	Fish	0.39	-1.78	-0.19	-0.04
10	Wheat Products	0.09	0.46	-0.43	-0.03
11	Pulse Masoor	0.16	0.52	-0.30	-0.03
12	Gur	0.04	-0.87	-0.24	-0.01
13	Besan	0.08	1.69	-0.02	0.00
14	Cigarettes	0.72	0.00	0.00	0.00
15	Butter	0.09	0.00	0.00	0.00
Total		8.92			-13.93

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

Top 15 Contributors					
Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Mar-21	Apr-21		
Ranked by Weighted Contribution					
1	House Rent	19.26	0.00	1.64	22.36
2	Tailoring	1.07	0.35	4.50	3.61
3	Personal Grooming Services	2.98	0.55	0.97	2.11
4	Communication Services	1.88	0.00	1.62	1.69
5	Household Equipments	1.00	1.46	1.79	1.30
6	Education	4.88	0.00	0.31	1.14
7	Cotton Cloth	2.22	1.77	0.64	1.10
8	Washing Soap/Detergents/Match Box	1.41	1.33	0.93	0.96
9	Readymade Garments	1.32	0.21	0.83	0.78
10	Drugs And Medicines	1.07	1.40	0.84	0.71
11	Hosiery	0.41	0.33	1.46	0.44
12	Construction Input Items	0.38	0.83	1.42	0.42
13	Woolen Cloth	0.84	0.98	0.61	0.37
14	Dopatta	0.17	0.41	1.29	0.15
15	Hospitals Services	0.57	1.68	0.34	0.14
Total		39.47			37.28
Bottom 15 Contributors					
1	Electricity Charges	4.56	-8.05	-1.89	-6.36
2	Motor Fuel	2.91	0.01	-1.52	-3.55
3	Transport Services	1.75	-3.00	-2.01	-2.33
4	Liquefied Hydrocarbons	0.51	-6.84	-3.80	-1.47
5	Solid Fuel	0.42	-0.28	-0.37	-0.10
6	Text Books	0.67	0.00	0.00	0.00
7	Personal Effects N.E.C.	0.00	0.00	0.00	0.00
8	Appliances/Articles/Products For P	0.00	0.00	0.00	0.00
9	Motor Vehicle Tax	0.05	0.00	0.00	0.00
10	Newspapers	0.07	0.00	0.00	0.00
11	Gas Charges	1.08	0.00	0.00	0.00
12	Communication Apparatus	0.45	0.01	0.00	0.00
13	Carpets	0.03	0.36	0.00	0.00
14	Household Servant	0.77	0.08	0.00	0.00
15	Water Supply	0.53	0.21	0.00	0.00
Total		13.79			-13.80

Table A10: Top Ten Contributors to Rural CPI Inflation (YoY) in April 2021					
Items/ Contributors		Weights	YoY Change		Weighted Contribution (%)
			Apr-20	Apr-21	
A. Ranked by Weighted Contribution					
1	Milk Fresh	10.38	2.70	13.48	11.08
2	Chicken	1.46	-28.50	85.15	8.35
3	Electricity Charges	3.44	-5.88	29.06	7.31
4	Wheat	3.47	21.88	24.48	7.20
5	Vegetable Ghee	2.38	29.47	21.38	5.50
6	Wheat Flour	3.43	18.13	19.33	5.37
7	House Rent	8.61	5.14	6.58	4.98
8	Readymade Food	3.80	11.02	11.64	4.11
9	Cotton Cloth	2.84	14.77	13.41	3.80
10	Solid Fuel	4.48	13.12	9.18	3.60
Total		44.29			61.29
B. Ranked by Percentage Change					
1	Chicken	1.46	-28.50	85.15	8.35
2	Tomatoes	0.51	-56.28	60.03	1.38
3	Eggs	0.57	29.26	46.14	2.25
4	Water Supply	0.06	30.55	36.99	0.25
5	Electricity Charges	3.44	-5.88	29.06	7.31
6	Wheat	3.47	21.88	24.48	7.20
7	Mustard Oil	0.01	15.50	23.71	0.03
8	Cooking Oil	0.60	26.84	23.29	1.45
9	Vegetable Ghee	2.38	29.47	21.38	5.50
10	Wheat Flour	3.43	18.13	19.33	5.37
Total		15.94			39.08
C. Ranked by Weights					
1	Milk Fresh	10.38	2.70	13.48	11.08
2	House Rent	8.61	5.14	6.58	4.98
3	Solid Fuel	4.48	13.12	9.18	3.60
4	Readymade Food	3.80	11.02	11.64	4.11
5	Wheat	3.47	21.88	24.48	7.20
6	Electricity Charges	3.44	-5.88	29.06	7.31
7	Wheat Flour	3.43	18.13	19.33	5.37
8	Cotton Cloth	2.84	14.77	13.41	3.80
9	Motor Fuels	2.49	-0.90	9.87	2.26
10	Vegetable Ghee	2.38	29.47	21.38	5.50
Total		45.32			55.21
Note: Weighted contribution is estimated by multiplying the weights by the price change of an item; this is then reported as a share in YoY change in Rural CPI, which is 11.3 percent in April 2021.					

Table A11: Top Ten Contributors to Rural CPI Inflation (MoM) in April 2021					
Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Mar-21	Apr-21		
A. Ranked by Weighted Contribution					
1	Fresh Vegetables	2.09	0.04	21.71	65.83
2	Fresh Fruits	1.45	6.08	25.20	55.83
3	Tomatoes	0.51	-6.10	55.54	23.74
4	Potatoes	0.74	11.43	12.15	18.48
5	House Rent	8.61	0.00	1.16	16.70
6	Vegetable Ghee	2.38	1.58	1.83	10.14
7	Cotton Cloth	2.84	2.03	1.41	8.03
8	Meat	1.71	0.36	1.59	5.27
9	Milk Fresh	10.38	0.20	0.31	5.19
10	Education	2.13	0.00	1.40	4.95
					32.85
					214.15
B. Ranked by Percentage Change					
1	Tomatoes	0.51	-6.10	55.54	23.74
2	Fresh Fruits	1.45	6.08	25.20	55.83
3	Fresh Vegetables	2.09	0.04	21.71	65.83
4	Potatoes	0.74	11.43	12.15	18.48
5	Cooking Oil	0.60	1.53	2.25	3.03
6	Tailoring	1.30	0.15	2.03	4.72
7	Readymade Garments	1.13	0.89	1.94	3.74
8	Vegetable Ghee	2.38	1.58	1.83	10.14
9	Garbage Collection	0.01	0.00	1.82	0.03
10	Meat	1.71	0.36	1.59	5.27
					11.93
					190.81
C. Ranked by Weights					
1	Milk Fresh	10.38	0.20	0.31	5.19
2	House Rent	8.61	0.00	1.16	16.70
3	Solid Fuel	4.48	-0.17	-0.03	-0.22
4	Readymade Food	3.80	0.11	0.33	2.32
5	Wheat	3.47	-0.33	-10.23	-75.28
6	Electricity Charges	3.44	-8.05	-1.89	-11.25
7	Wheat Flour	3.43	0.97	-1.56	-9.49
8	Cotton Cloth	2.84	2.03	1.41	8.03
9	Motor Fuels	2.49	0.03	-1.84	-8.51
10	Vegetable Ghee	2.38	1.58	1.83	10.14
					45.32
					-62.38
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 0.6 percent in April 2021.					

Table A12: Top and Bottom Fifteen Contributors to Rural CPI Inflation (YoY) in April 2021					
Top 15 Contributors					
Items/ Contributors	Weights	YoY Change		Weighted Contribution (%)	
		Apr-20	Apr-21		
Ranked by Weighted Contribution					
1	Milk Fresh	10.38	2.70	13.48	11.08
2	Chicken	1.46	-28.50	85.15	8.35
3	Electricity Charges	3.44	-5.88	29.06	7.31
4	Wheat	3.47	21.88	24.48	7.20
5	Vegetable Ghee	2.38	29.47	21.38	5.50
6	Wheat Flour	3.43	18.13	19.33	5.37
7	House Rent	8.61	5.14	6.58	4.98
8	Readymade Food	3.80	11.02	11.64	4.11
9	Cotton Cloth	2.84	14.77	13.41	3.80
10	Solid Fuel	4.48	13.12	9.18	3.60
11	Sugar	2.03	24.54	16.51	2.98
12	Condiments And Spices	1.49	43.95	13.72	2.29
13	Motor Fuels	2.49	-0.90	9.87	2.26
14	Eggs	0.57	29.26	46.14	2.25
15	Rice	1.55	12.75	13.02	2.24
Total		52.42			73.33
Bottom 15 Contributors					
1	Onions	0.90	38.93	-43.53	-3.31
2	Pulse Moong	0.25	94.41	-14.66	-0.45
3	Fresh Fruits	1.45	3.88	-1.30	-0.20
4	Pulse Gram	0.28	28.54	-3.15	-0.08
5	Pulse Masoor	0.21	45.11	-2.34	-0.04
6	Besan	0.07	20.92	-4.70	-0.03
7	Gram Whole	0.11	7.91	-1.14	-0.01
8	Motor Vehicle Tax	0.02	0.00	0.00	0.00
9	Postal Services	0.01	31.47	0.00	0.00
10	Accommodation Services	0.14	0.00	0.03	0.00
11	Garbage Collection	0.01	5.69	4.89	0.00
12	Newspapers	0.02	0.00	2.40	0.01
13	Dental Services	0.02	11.98	7.84	0.01
14	Dessert Preparation	0.01	7.18	11.56	0.01
15	Cleaning And Laundering	0.02	13.73	9.99	0.02
Total		3.51			-4.07

Table A13: Top and Bottom Fifteen Contributors to Rural CPI Inflation (MoM) in April 2021					
Top 15 Contributors		MoM Change		Weighted Contribution (%)	
Items/ Contributors	Weights	Mar-21	Apr-21		
Ranked by Weighted Contribution					
1	Fresh Vegetables	2.09	0.04	21.71	65.83
2	Fresh Fruits	1.45	6.08	25.20	55.83
3	Tomatoes	0.51	-6.10	55.54	23.74
4	Potatoes	0.74	11.43	12.15	18.48
5	House Rent	8.61	0.00	1.16	16.70
6	Vegetable Ghee	2.38	1.58	1.83	10.14
7	Cotton Cloth	2.84	2.03	1.41	8.03
8	Meat	1.71	0.36	1.59	5.27
9	Milk Fresh	10.38	0.20	0.31	5.19
10	Education	2.13	0.00	1.40	4.95
11	Tailoring	1.30	0.15	2.03	4.72
12	Readymade Garments	1.13	0.89	1.94	3.74
13	Household Equipments	1.28	1.69	1.49	3.41
14	Cooking Oil	0.60	1.53	2.25	3.03
15	Washing Soaps, Detergents And	1.70	1.41	0.92	2.59
Total		38.86			231.65
Bottom 15 Contributors					
1	Wheat	3.47	-0.33	-10.23	-75.28
2	Onions	0.90	0.02	-14.47	-13.10
3	Sugar	2.03	5.77	-3.13	-12.25
4	Electricity Charges	3.44	-8.05	-1.89	-11.25
5	Wheat Flour	3.43	0.97	-1.56	-9.49
6	Motor Fuels	2.49	0.03	-1.84	-8.51
7	Liquefied Hydrocarbons	1.00	-2.40	-3.74	-6.15
8	Chicken	1.46	12.21	-1.12	-3.70
9	Transport Services	1.80	-2.02	-1.18	-3.31
10	Condiments And Spices	1.49	-0.61	-0.46	-1.58
11	Personal Effects N.E.C.	1.21	-3.53	-0.58	-1.56
12	Cigarettes	1.24	-0.03	-0.42	-0.84
13	Pulse Moong	0.25	0.69	-1.68	-0.82
14	Pulse Masoor	0.21	2.18	-2.57	-0.75
15	Gur	0.15	0.14	-1.08	-0.28
Total		24.57			-148.88

Table A14: Top and Bottom Fifteen Contributors to MoM Rural CPI Food Inflation in April 2021					
Top 15 Contributors		Weights	MoM Change		Weighted Contribution (%)
Items/ Contributors	Mar-21		Apr-21		
Ranked by Weighted Contribution					
1	Fresh Vegetables	2.09	0.04	21.71	65.83
2	Fresh Fruits	1.45	6.08	25.20	55.83
3	Tomatoes	0.51	-6.10	55.54	23.74
4	Potatoes	0.74	11.43	12.15	18.48
5	Vegetable Ghee	2.38	1.58	1.83	10.14
6	Meat	1.71	0.36	1.59	5.27
7	Milk Fresh	10.38	0.20	0.31	5.19
8	Cooking Oil	0.60	1.53	2.25	3.03
9	Readymade Food	3.80	0.11	0.33	2.32
10	Rice	1.55	0.60	0.50	1.74
11	Eggs	0.57	15.00	0.76	0.97
12	Beverages	0.55	0.71	1.01	0.90
13	Milk Products	0.96	0.44	0.37	0.56
14	Bakery And Confectionary	0.37	0.18	0.69	0.44
15	Gram Whole	0.11	2.53	0.86	0.14
Total		27.78			194.59
Bottom 15 Contributors					
1	Wheat	3.47	-0.33	-10.23	-75.28
2	Onions	0.90	0.02	-14.47	-13.10
3	Sugar	2.03	5.77	-3.13	-12.25
4	Wheat Flour	3.43	0.97	-1.56	-9.49
5	Chicken	1.46	12.21	-1.12	-3.70
6	Condiments And Spices	1.49	-0.61	-0.46	-1.58
7	Cigarettes	1.24	-0.03	-0.42	-0.84
8	Pulse Moong	0.25	0.69	-1.68	-0.82
9	Pulse Masoor	0.21	2.18	-2.57	-0.75
10	Gur	0.15	0.14	-1.08	-0.28
11	Besan	0.07	4.71	-2.24	-0.26
12	Pulse Gram	0.28	3.89	-0.36	-0.15
13	Wheat Products	0.11	0.41	-0.49	-0.10
14	Dry Fruits	0.25	0.11	-0.13	-0.06
15	Pulse Mash	0.15	2.52	-0.01	0.00
Total		15.48			-118.67

Table A15: Top and Bottom Fifteen Contributors to MoM Rural CPI Non-food Inflation in April 2021					
Top 15 Contributors					
Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Mar-21	Apr-21		
Ranked by Weighted Contribution					
1	House Rent	8.61	0.00	1.16	16.70
2	Cotton Cloth	2.84	2.03	1.41	8.03
3	Education	2.13	0.00	1.40	4.95
4	Tailoring	1.30	0.15	2.03	4.72
5	Readymade Garments	1.13	0.89	1.94	3.74
6	Household Equipments	1.28	1.69	1.49	3.41
7	Washing Soaps, Detergents And	1.70	1.41	0.92	2.59
8	Personal Grooming Services	1.54	0.48	0.84	2.44
9	Hospitals Services	1.01	0.34	0.86	1.39
10	Doctor (Mbbs) Clinic Fee	0.51	0.00	1.12	1.29
11	Communication Services	1.65	0.00	0.53	1.09
12	Appliances/Articles/Products For	2.27	0.44	0.27	0.97
13	Hosiery	0.43	0.82	0.72	0.68
14	Motor Vehicles	0.73	0.02	0.55	0.65
15	Drugs And Medicines	1.58	0.37	0.18	0.52
Total		28.72			53.16
Bottom 15 Contributors					
1	Electricity Charges	3.44	-8.05	-1.89	-11.25
2	Motor Fuels	2.49	0.03	-1.84	-8.51
3	Liquefied Hydrocarbons	1.00	-2.40	-3.74	-6.15
4	Transport Services	1.80	-2.02	-1.18	-3.31
5	Personal Effects N.E.C.	1.21	-3.53	-0.58	-1.56
6	Solid Fuel	4.48	-0.17	-0.03	-0.22
7	Postal Services	0.01	0.00	0.00	0.00
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	Mechanical Services	0.36	0.00	0.00	0.00
12	Text Books	0.50	0.00	0.00	0.00
13	Dental Services	0.02	0.00	0.00	0.00
14	Woolen Readymade Garments	0.54	0.00	0.00	0.00
15	Cleaning And Laundering	0.02	0.13	0.00	0.00
Total		16.04			-31.01

Table A16: Distribution of Price Changes (YoY) - Selected Urban CPI Items: April 2021

Groups	Decrease or no change	Subdued increase (Greater than 0% but less than 5%)	Moderate increase (5% but less than 10%)	Double digit increase (10% or more)
Food & Non-Beverages	Onions, Garlic (Lehsun), Pulse Moong (Washed), Pulse Masoor (Washed), Apple (Average Quality).	Powdered Milk Nido 390 Gm Polybag, Gur (Average Quality), Pepper Black National 50 Gm Packet.	Tomato Ketchup Mitchells/National 1 Kg Polybag, Potatoes, Beef With Bone (Average Quality).	Chilies Powder National 200 Gm Packet, Lemon, Chicken Farm Broiler (Live), Tomatoes, Eggs Farm, Bananas (Kela) Local, Suji, Cucumber (Kheera), Wheat Flour (Fine/Superior Quality).
Alcoholic Beverages & Tobacco		Cigarettes Capstan 20'S Packet.	Cigarettes Gold Leaf 20'S Packet.	Pan Prepared (Sweet With Beetle Nuts).
Clothing & Footwear	Ladies Sandal Bata, Gents Sandal Bata, Cheetah 50 Size 3-5 Servis.	Full Pant Boy Length 24"/26", Women Shalwar Kameez (Average Quality), Chaddar (Wash-N-Wear) (2X2.5 Meter).	Tailoring Charges Simple Suit (Female), Dry Cleaning Charges Pant Coat Both, Georgette (Average Quality), Pullover Gents (Average Quality).	Gents Shoes Paul Bata, Heavy Weight Suiting Lawrance Pur (Average Quality), Gents Sponge Chappal Bata, Long Cloth 57" Gul Ahmed/Al Karam, Pullover Gents Oxford/Bonanza, Shirting (Average Quality), Washing Charges Shalwar Kameez, Children Shoes Power Lite Bata.
Housing, Water, Elect, Gas & other Fuels	Gas Charges Upto 3.3719 Mmbtu, Gas Charges 3.3719 - 6.7438 Mmbtu.	Mason Wage Rate, Painter Wage Rate, Unskilled Labor Wage Rate, Plumber Wage Rate, Bajri, Sand (Black Pit), Cement Blocks (6"X8"X12").	Electrician Charges, Bricks New 1St Class, Synthetic Enamel Ici Balti 3.64 Litre, House Rent Combined, Firewood Whole, Lpg 11.67 Kg Cylinder.	Electricity Charges Upto 50 Units, Electricity Charges 51-100 Units, Electricity Charges 101-300 Units, Electricity Charges Combined, Electricity Charges 301-700 Units, Water Charges Per House, Electricity Charges Above 700 Units, Iron Bars (M.S. Bar) 1/2 " 40 Grade.
Furnishing & Household Equip. Maintenance etc		Bucket (Balti) Plastic Medium Size, Phenyl Tyfon/Finis 2.75 Litre Bottle, Geyser Super Asia Large Size 30 Gallons (Gas).	Towel Medium Size (3' X 2'), Finis 400 Ml Bottle, Robin Blue Liquid 75 Ml Bottle.	Boot Polish Cherry/Kiwi 42 Ml, Sufi Washing Soap 250 Gm Cake, Mattress Foam Single Bed Molty/Diamond (4" Thick) , Central Table Set With Glass Top, Match Box , Water Pump Golden Monoblock/Donkey 0.5 H.P.
Health		Daonil Tablets 5 Mg, Gynecologist Fee Per Visit, Ultrasound Abdominal, X-Ray (Chest) Charges.	Cac 1000 Tablets Sandoz Bottle, Phenergan Syrup 120 Ml Bottle, Betnovate-N Ointment 10 Gm Tube.	Dettol Medium Bottle, Lederplex Syrup Bottle, Septran Tablets, Johar Joshanda Instant (Sachet) Packet, Urine Test (Dr) Charges, Doctor (Mbbs) Clinic Fee, Electronic Bp Checking Apparatus.
Transport	Air Fare Economy Class Per Kilometer (National Average), Train Fare Business Class Per Person.	Car Suzuki 800 Cc Without Ac, Hi-Speed Diesel, Motorcycle Service Charges, Tire Motorcycle Cd 70 (Back Wheel), Car Suzuki 1000 Cc.	Mini Bus Fare Minimum Within City, Motorcycle Honda Cd 70, Bus Fare Maximum Within City.	Bicycle, Tire Car Puncture Charges, Taxi Four Seater Fare, Tire Car Mehran Tubeless (General), Auto Rickshaw Fare, Mini Bus Fare Maximum Within City, Petrol Super.
Communication	Mobile Call Charges.	Internet Charges (Dsl) 1 Mb (Unlimited), Mobile Set With Rear Camera And Without Touch Screen.		Telephone Call Charges, Courier Charges Minimum Within Zone Outside City (Tcs).
Recreation & Culture	Newspaper Daily Jang, Mag The Weekly (Magazine), Newspaper Daily Dawn, Akhbar-E-Jehan Weekly.	Personal Computer With Led Monitor (17") Dell/Hp/Acer Core I5, Mathematics Book Class Xi (Text Book Board), Exercise Book (With Lines) 80 To 100 Pages.	Ballpoint Pen Local, English Book Class Ix And X, Recreational Park Charges (Minimum Playland Ticket), Urdu Book Class Xi/Inter.	Laptop Dell/Hp/Acer Core I5, Display (14"-15"), Lead Pencil Goldfish.
Education	Government Medical College/University Tuition Fee For Mbbs (1St Year).	Private Medical College/University Tuition Fee For Mbbs (1St Year).		
Restaurant & Hotels			Cooked Chicken At Average Hotel, Chicken Biryani Full/Double.	Bread Tandoori Standard Size, Cooked Beef At Average Hotel, Tea Prepared Ordinary.
Miscellaneous		Purse Ladies Medium Size (Average Quality), Tissue Paper Perfumed Box 100 Napkins.	Hair Removing Cream (Eu-Cream) 30Ml Tube, Hair Oil (Kala Kola Hair Tonic), Toilet Soap Lifebuoy 115 Gm.	Silver Tezabi 24 Carett, Pampers (Medium Size), Tooth Brush (Shield), Artificial Jewelry (Locket Set) (Average Quality), Lipstick Swiss Miss/Medora (Medium), Shaving Charges.

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

Groups	Decrease or no change	Subdued increase (Greater than 0% but less than 5%)	Moderate increase (5% but less than 10%)	Double digit increase (10% or more)
Food & Non-Alcoholic Beverages	Onions, Garlic (Lehsun), Chilies (Green), Pulse Moong (Washed), Watermelon (Turbooz).	Salt Powder Loose, Gur (Average Quality), Powdered Milk Nido 390 Gm Polybag, Ginger (Adrak).	Rusk (Papay) (Average Quality), Curd, Ice Cream Walls Cup (Large Size), Pulse Mash (Washed).	Chicken Farm Broiler (Live), Lemon, Tomatoes, Eggs Farm, Peas (Matar), Chips (Loose), Chilies Powder Loose, Wheat, Tinda, Mustard Oil (Average Quality), Cooking Oil (Pouch).
Alcoholic Beverages & Tobacco	Tobacco Hukka Twisted.	Cigarettes Capstan 20'S Packet, Cigarettes Gold Leaf 20'S Packet.		Pan Prepared (Sweet With Beetle Nuts), Chewing Tobacco (Niswar).
Clothing & Footwear		Footware Ladies Local (Average Quality), Chaddar (Wash-N-Wear) (2X2.5 Meter), School Uniform Girls (Kameez & Shalwar) 24"/26".	Washing Charges Shalwar Kameez, Pullover Gents (Average Quality), Shoe Polish Charges, Lungi/Dhoti Cotton (Average Quality).	Vest "Baniyan" For Men Average Quality, Shirt Boy Length 24"/26", Shirting (Average Quality), Shoe Repair Full Sole, Lawn Printed (Average Quality), Georgette (Average Quality), Brassier (Average Quality), Tailoring Charges Simple Suit (Female).
Housing, Water, Elect, Gas & other Fuels	Lpg 11.67 Kg Cylinder.	Charges For Refuse/Waste Collection, Mason Wage Rate, Unskilled Labor Wage Rate, Kerosene Oil, Sand (Black Pit).	Firewood Whole, Painter Wage Rate, Coal, Plumber Wage Rate, House Rent Combined, Bricks New 1st Class, Carpenter Wage Rate, Bajri.	Electricity Charges Upto 50 Units, Electricity Charges 51-100 Units, Water Charges Per House, Electricity Charges 101-300 Units, Electricity Charges Combined, Electricity Charges 301-1000 Units, Electricity Charges Above 1000 Units, Cement (Local) 50 Kg Bag, Electrician Charges.
Furnishing & Household Equip, Maintenance etc.		Aluminium Cooking Pan (Degchi), Cleanser Powder Vim 900 Gm Polybag, Express Washing Powder 1 Kg Polybag.	Lota Plastic Medium Size (Average Quality), Cot Iron (Charpai), Finis 400 Ml Bottle, Sewing Machine (Sn) Without Cover.	Boot Polish Cherry/Kiwi 42 Ml, Match Box, Ceiling Fan 56" Pak/Younas/Millat, Bucket (Balti) Plastic Medium Size, Washing Soap 250 Gm Cake (Specify Name), Water Cooler 9/10 Litre Plastic Super Quality.
Health		Cost Of Surgery (C-Section), Amoxil Capsule 250 Mg, Physiotherapist Fee Per Visit.	Cac 1000 Tablets Sandoz Bottle, X-Ray (Chest) Charges, Panadol Tablets Plain.	Dettol Medium Bottle, Doctor (Mbbs) Clinic Fee, Johar Joshanda Instant (Sachet) Packet, Inderal Tablets 10 Mg.
Transport	Air Fare Economy Class Per Kilometer, Car Suzuki 800 Cc Without Ac, Car Tax 800 Cc To 1500 Cc, Bus Fare Outside City (Non Ac).	Hi-Speed Diesel, Mobil Oil (Havoline 20W-50), Train Fare Economy Per Person, Motorcycle Service Charges, Cng, Tire Cycle.	Motorcycle Honda Cd 70, Tire Car Mehran Tubeless (General), Chingchi Rickshaw Charges, Minimum.	Bicycle, Petrol Super.
Communication	Mobile Call Charges, Postal Registration Charges.	Internet Charges (Dsl) 1 Mb (Unlimited), Mobile Set With Rear Camera And Without Touch Screen.		Telephone Call Charges.
Recreation & Culture		Led Sony/Samsung 32" Colored, Newspaper Daily Jang, Cable Charges.	Ballpoint Pen Local, Lead Pencil Goldfish, English Books Class Xi Complete Set, English Books Class Ix And X.	Exercise Book (With Lines) 80 To 100 Pages.
Education		Private School Fee English Medium Average Standard (Class I).		
Restaurant & Hotels		Marriage Hall Charges With Furniture.	Tea Prepared Ordinary, Chicken Biryani Full/Double.	Cooked Beef At Average Hotel, Bread Tandoori Standard Size, Cooked Chicken At Average Hotel.
Miscellaneous		Suitcase Ragzine (24"X16"X6") (Average Quality), Shaving Cream (Touchme Large/Admiral).	Trunk Medium Size (Average Quality), Hair Removing Cream (Eu-Cream) 30Ml Tube, Hair Color (Kala Kola).	Hair Cut Charges For Men, Tooth Paste Colgate 75 Gm, Talcum Powder Viceroy/Black Cat, Disposable Razor Gillette Blue Ii, Artificial Jewelry (Locket Set) (Average Quality).

Table A18: Distribution of Price Changes (YoY) - WPI Items: April 2021				
Groups	Decrease or no change	Subdued increase (Greater than 0% but less than 5%)	Moderate increase (5% but less than 10%)	Double digit increase (10% or more)
Agriculture Forestry & Fishery Products	Hides, Skins & Fur Skins, Raw, Pulses.	Fish Live Fresh Or Chilled, Raw Animal Materials / Wool.	Dry Fruits, Cotton Seeds, Vegetables, Edible Roots / Potatoes, Stimulant & Spice Crops.	Poultry, Eggs, Millet / Bajra, Unmanufactured Tobacco, Wheat, Sorghum / Jowar, Fresh Fruits, Raw Milk From Bovine Animals, Fibre Crops, Rice, Other Oil Seeds, Maize, Sugar Crops.
Ores & Minerals, Electricity Gas & Water	Coal Not Agglomerated.	Salt & Pure Sodium Chloride, Natural Gas Liquefied.	Electrical Energy.	
Food Products, Beverages and Tobacco, Textiles, Apparel and Leather Products	Other Cereal Flour, Nylon Yarn, Tobacco Products, Woolen Carpets, Other Leather N.E.C.	Beverages, Leather Without Hair, Mineral Water, Coffee & Tea, Synthetic Carpets, Footwears.	Bed Sheets, Chocolate, Blankets, Vegetables & Fruit Juice, Milk & Cream In Solid Form, Dairy Products N.E.C, Quilts, Processed Liquid Milk, Other Fabrics, Other Food Products, Readymade Garments.	Spices, Sugar Confectionary, Cotton Fabrics, Silk & Reyon Fabrics, Vegetable Oils Refined, Cotton Yarn, Vegetable Ghee, Wheat Flour, Towels, Oil Cakes, Ice Cream, Sugar Refined, Meat Of Animals, Dried Fruits & Nuts, Woven Fabrics, Hosiery Products, Fruit Juices, Blended Yarn.
Other Transportable Goods except Metal Products, Machinery and Equipments	Hard Board, Printing Paper, Dyeing Material, Insecticides.	Kerosine Oil, Soaps & Detergents, Auto Tyres, Medicines, Ceramics & Sanitary Fixture, Glass Sheets, Matches.	Bed Foam, Mobil Oil.	Furnace Oil, Timber, Pesticides, Fertilizers, Diesel Oil, Steel Bar & Sheets, Other Glass Articles, Bricks, Blocks & Tiles, Cement, Chemicals, Motor Spirit, Plastic Products, Paints & Varnishes.
Metal Product Machinery & Equipment	Vacuum Pumps, Engines & Motors, Concrete Mixture, Cultivators.	Lighting Equipments, Motor Vehicles, Steel Products.	Motorcycles, Lathe Machines, Fridge, Washm, Sewm, Fans, Iron, Tractors, Radio & Television.	Bicycles, Pipe Fittings, Electric Wires, Chuff Cutter, Air Conditioners.

Table A19: International Commodity Prices/Indices

	Jan-21	Feb-21	Mar-21	Apr-21
Energy				
Crude Oil (US\$ per barrel)*	53.6	60.5	63.8	63.0
Energy Index (2010 = 100)	69.3	79.3	79.8	79.4
Food				
Rice (\$/MT)	545.0	557.0	525.0	495.0
Wheat (\$/MT)##	276.4	276.6	272.6	281.4
Sugar (US cent/ pound)^	15.2	16.2	15.5	16.1
Palm Oil (\$/MT)	990.3	1,019.9	1,030.9	1,074.6
Soybean Oil (\$/MT)	1,101.5	1,121.0	1,169.8	1,201.7
Non-Food Non-Energy				
Cotton Outlook 'A' Index #^	87.2	92.8	91.4	90.7
Metal Price Index (2010 = 100)	99.7	105.0	109.0	113.5
Copper (\$/MT)	7,972.2	8,470.9	8,988.3	9,324.8
Aluminum (\$/MT)	2,004.0	2,078.6	2,190.5	2,319.4
Iron Ore (\$ cents/dry MT)	169.6	163.8	168.2	179.8
Tin (\$/MT)	21,920.2	26,315.8	27,061.0	28,328.4
Nickel (\$/MT)	17,863.2	18,584.4	16,406.7	16,521.3
Zinc (\$/MT)	2,705.3	2,744.5	2,791.9	2,829.0
Lead (\$/MT)	2,014.7	2,080.1	1,948.0	2,011.9
Uranium (\$/MT)@	29.6	28.0	31.0	28.9
DAP (\$/MT)	421.3	528.9	534.1	543.4
Urea (\$/MT)	265.0	335.0	352.9	328.1

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 = 45.359237 U.S. cents / pound. Both the variables have been converted to the measurement unit US cent/ pound.

\$/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	FY17	FY18	FY19	FY20	FY21
Jul	103.17	107.15	114.29	123.86	135.38
Aug	102.80	107.31	113.93	125.89	136.23
Sep	103.23	108.05	113.90	126.86	138.32
Oct	104.19	109.22	116.32	129.16	140.67
Nov	104.69	109.95	116.18	130.90	141.83
Dec	104.08	109.92	115.82	130.45	140.86
Jan	104.53	110.01	116.12	133.03	140.56
Feb	105.04	109.72	117.12	131.64	143.09
Mar	106.14	109.96	119.46	131.69	143.61
Apr	106.91	111.15	120.33	131.59	145.09
May	106.36	111.65	121.05	131.01	
Jun	106.54	112.58	121.63	132.08	
Seasonally Adjusted Series					
Jul	102.86	106.82	113.95	123.52	135.02
Aug	102.50	107.04	113.68	125.66	136.02
Sep	102.76	107.59	113.47	126.40	137.85
Oct	103.19	108.17	115.17	127.87	139.22
Nov	103.70	108.88	115.01	129.53	140.30
Dec	104.17	109.97	115.83	130.44	140.82
Jan	104.69	110.17	116.30	133.23	140.75
Feb	105.82	110.49	117.91	132.47	143.96
Mar	106.85	110.67	120.20	132.47	144.43
Apr	107.07	111.34	120.56	130.86	145.44
May	107.03	112.38	121.86	131.91	
Jun	107.15	113.25	122.38	132.93	

Table A21: Urban CPI Data Series Original and Seasonally Adjusted

Original Series					
Period	FY17	FY18	FY19	FY20	FY21
Jul	103.20	107.71	114.94	124.95	134.73
Aug	102.73	107.93	114.58	126.77	135.82
Sep	103.06	108.38	114.49	127.72	137.53
Oct	103.87	109.34	117.04	129.75	139.27
Nov	104.36	110.03	116.94	131.05	140.16
Dec	103.74	110.08	116.57	130.57	139.67
Jan	104.59	110.28	117.07	132.77	139.45
Feb	105.12	110.12	118.08	131.32	142.61
Mar	106.18	110.43	120.29	131.49	142.99
Apr	107.20	111.94	121.29	130.60	144.91
May	106.86	112.53	122.11	130.99	
Jun	107.08	113.34	122.52	131.89	
Seasonally Adjusted Series					
Jul	102.76	107.25	114.47	124.46	134.22
Aug	102.33	107.54	114.20	126.39	135.45
Sep	102.64	107.97	114.10	127.31	137.11
Oct	103.08	108.52	116.16	128.76	138.19
Nov	103.62	109.24	116.08	130.06	139.09
Dec	104.09	110.41	116.89	130.93	140.06
Jan	104.71	110.38	117.16	132.83	139.47
Feb	105.87	110.86	118.82	132.08	143.38
Mar	106.94	111.21	121.11	132.35	143.90
Apr	107.20	111.95	121.31	130.64	144.98
May	107.30	113.01	122.65	131.59	
Jun	107.55	113.86	123.10	132.56	

Table A22: Rural CPI Data Series Original and Seasonally Adjusted					
Original Series					
Period	FY17	FY18	FY19	FY20	FY21
Jul	103.12	106.30	113.30	122.22	136.36
Aug	102.90	106.37	112.96	124.56	136.84
Sep	103.49	107.54	113.01	125.55	139.51
Oct	104.68	109.05	115.23	128.28	142.79
Nov	105.18	109.83	115.03	130.67	144.34
Dec	104.59	109.68	114.70	130.28	142.65
Jan	104.44	109.60	114.68	133.42	142.23
Feb	104.91	109.11	115.68	132.13	143.82
Mar	106.09	109.25	118.21	132.00	144.55
Apr	106.47	109.95	118.89	130.58	145.37
May	105.60	110.33	119.45	131.03	
Jun	105.73	111.44	120.29	132.36	
Seasonally Adjusted Series					
Jul	103.00	106.17	113.17	122.09	136.23
Aug	102.75	106.27	112.90	124.56	136.90
Sep	102.94	107.02	112.51	125.03	138.96
Oct	103.37	107.63	113.69	126.52	140.78
Nov	103.83	108.34	113.40	128.73	142.13
Dec	104.30	109.30	114.24	129.70	141.98
Jan	104.66	109.87	115.00	133.83	142.68
Feb	105.74	109.95	116.54	133.07	144.82
Mar	106.71	109.86	118.84	132.66	145.23
Apr	106.87	110.41	119.42	131.21	146.13
May	106.62	111.43	120.67	132.40	
Jun	106.55	112.33	121.28	133.50	

Table A23: National CPI Monthly & Average Seasonal Factors						
Period	FY17	FY18	FY19	FY20	FY21	Average
Jul	100.30	100.31	100.29	100.28	100.26	100.29
Aug	100.29	100.25	100.22	100.18	100.15	100.22
Sep	100.46	100.42	100.38	100.36	100.34	100.39
Oct	100.97	100.98	100.99	101.01	101.04	101.00
Nov	100.95	100.98	101.02	101.06	101.09	101.02
Dec	99.91	99.96	99.99	100.01	100.03	99.98
Jan	99.85	99.85	99.85	99.85	99.87	99.85
Feb	99.26	99.30	99.34	99.37	99.40	99.33
Mar	99.34	99.36	99.38	99.41	99.43	99.38
Apr	99.85	99.83	99.82	99.79	99.76	99.81
May	99.37	99.35	99.33	99.32		99.34
Jun	99.43	99.41	99.39	99.36		99.40

Table A24: Urban CPI Monthly & Average Seasonal Factors						
Period	FY17	FY18	FY19	FY20	FY21	Average
Jul	100.43	100.43	100.41	100.39	100.38	100.41
Aug	100.39	100.36	100.33	100.30	100.28	100.33
Sep	100.41	100.38	100.34	100.32	100.31	100.35
Oct	100.77	100.76	100.76	100.77	100.78	100.77
Nov	100.72	100.73	100.74	100.76	100.77	100.74
Dec	99.67	99.70	99.72	99.72	99.72	99.71
Jan	99.89	99.91	99.93	99.95	99.99	99.93
Feb	99.29	99.34	99.38	99.43	99.46	99.38
Mar	99.29	99.30	99.33	99.35	99.37	99.33
Apr	100.00	99.99	99.98	99.97	99.95	99.98
May	99.59	99.57	99.56	99.55		99.57
Jun	99.57	99.55	99.53	99.49		99.53

Table A25: Rural CPI Monthly & Average Seasonal Factors						
Period	FY17	FY18	FY19	FY20	FY21	Average
Jul	100.11	100.12	100.11	100.10	100.10	100.11
Aug	100.15	100.09	100.05	100.00	99.96	100.05
Sep	100.54	100.49	100.44	100.41	100.40	100.46
Oct	101.27	101.32	101.36	101.39	101.43	101.35
Nov	101.30	101.37	101.44	101.51	101.56	101.44
Dec	100.27	100.35	100.41	100.44	100.47	100.39
Jan	99.79	99.75	99.72	99.70	99.69	99.73
Feb	99.22	99.24	99.27	99.29	99.31	99.26
Mar	99.42	99.44	99.47	99.50	99.53	99.47
Apr	99.62	99.59	99.56	99.52	99.48	99.55
May	99.05	99.02	98.99	98.96		99.00
Jun	99.23	99.21	99.18	99.15		99.19

Table A26: National CPI (Month-on-Month) Original & Seasonally Adjusted					
Original Series					
Period	FY17	FY18	FY19	FY20	FY21
Jul	1.44	0.57	1.51	1.83	2.50
Aug	-0.36	0.15	-0.31	1.64	0.63
Sep	0.42	0.69	-0.03	0.77	1.53
Oct	0.93	1.09	2.12	1.81	1.70
Nov	0.47	0.66	-0.12	1.35	0.82
Dec	-0.58	-0.03	-0.30	-0.34	-0.68
Jan	0.43	0.08	0.25	1.97	-0.21
Feb	0.48	-0.26	0.87	-1.04	1.80
Mar	1.05	0.22	2.00	0.04	0.36
Apr	0.72	1.08	0.73	-0.84	1.03
May	-0.52	0.46	0.60	0.32	
Jun	0.17	0.83	0.48	0.82	
Seasonally Adjusted Series					
Jul	0.59	-0.31	0.62	0.93	1.57
Aug	-0.35	0.21	-0.24	1.74	0.74
Sep	0.26	0.52	-0.19	0.59	1.34
Oct	0.42	0.53	1.50	1.16	1.00
Nov	0.49	0.66	-0.14	1.30	0.77
Dec	0.46	1.00	0.72	0.70	0.37
Jan	0.49	0.19	0.40	2.14	-0.05
Feb	1.08	0.29	1.38	-0.57	2.28
Mar	0.98	0.16	1.95	0.00	0.33
Apr	0.21	0.60	0.29	-1.21	0.70
May	-0.04	0.94	1.08	0.80	
Jun	0.11	0.77	0.42	0.77	

Table A27: Urban CPI (Month-on-Month) Original & Seasonally Adjusted Series					
Original Series					
Period	FY17	FY18	FY19	FY20	FY21
Jul	1.47	0.59	1.41	1.98	2.15
Aug	-0.46	0.20	-0.31	1.46	0.81
Sep	0.32	0.42	-0.08	0.75	1.26
Oct	0.79	0.89	2.23	1.59	1.27
Nov	0.47	0.63	-0.09	1.00	0.64
Dec	-0.59	0.05	-0.32	-0.37	-0.35
Jan	0.82	0.18	0.43	1.68	-0.16
Feb	0.51	-0.15	0.86	-1.09	2.27
Mar	1.01	0.28	1.87	0.13	0.27
Apr	0.96	1.37	0.83	-0.68	1.34
May	-0.32	0.53	0.68	0.30	
Jun	0.21	0.72	0.34	0.69	
Seasonally Adjusted Series					
Jul	0.62	-0.28	0.54	1.10	1.25
Aug	-0.42	0.28	-0.24	1.55	0.91
Sep	0.30	0.40	-0.09	0.73	1.23
Oct	0.43	0.50	1.81	1.14	0.79
Nov	0.52	0.66	-0.07	1.01	0.65
Dec	0.45	1.07	0.70	0.67	0.69
Jan	0.59	-0.03	0.22	1.45	-0.42
Feb	1.11	0.43	1.42	-0.57	2.81
Mar	1.02	0.32	1.93	0.21	0.36
Apr	0.24	0.67	0.17	-1.29	0.75
May	0.09	0.95	1.11	0.73	
Jun	0.23	0.75	0.37	0.74	

Table A28: Rural CPI (Month-on-Month) Original & Seasonally Adjusted					
Original Series					
Period	FY17	FY18	FY19	FY20	FY21
Jul	1.39	0.54	1.67	1.60	3.02
Aug	-0.21	0.07	-0.30	1.91	0.35
Sep	0.57	1.10	0.04	0.79	1.95
Oct	1.15	1.40	1.96	2.17	2.35
Nov	0.48	0.72	-0.17	1.86	1.09
Dec	-0.56	-0.14	-0.29	-0.30	-1.17
Jan	-0.14	-0.07	-0.02	2.41	-0.29
Feb	0.45	-0.45	0.87	-0.97	1.12
Mar	1.12	0.13	2.19	-0.10	0.51
Apr	0.36	0.64	0.58	-1.08	0.57
May	-0.82	0.35	0.47	0.34	
Jun	0.12	1.01	0.70	1.02	
Seasonally Adjusted Series					
Jul	0.55	-0.35	0.75	0.67	2.04
Aug	-0.25	0.10	-0.24	2.02	0.49
Sep	0.18	0.70	-0.35	0.38	1.50
Oct	0.42	0.58	1.04	1.19	1.31
Nov	0.45	0.66	-0.26	1.75	0.96
Dec	0.46	0.88	0.74	0.75	-0.11
Jan	0.34	0.52	0.67	3.18	0.49
Feb	1.03	0.07	1.33	-0.56	1.50
Mar	0.91	-0.08	1.98	-0.31	0.28
Apr	0.16	0.50	0.48	-1.09	0.62
May	-0.24	0.92	1.05	0.91	
Jun	-0.07	0.81	0.51	0.83	

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

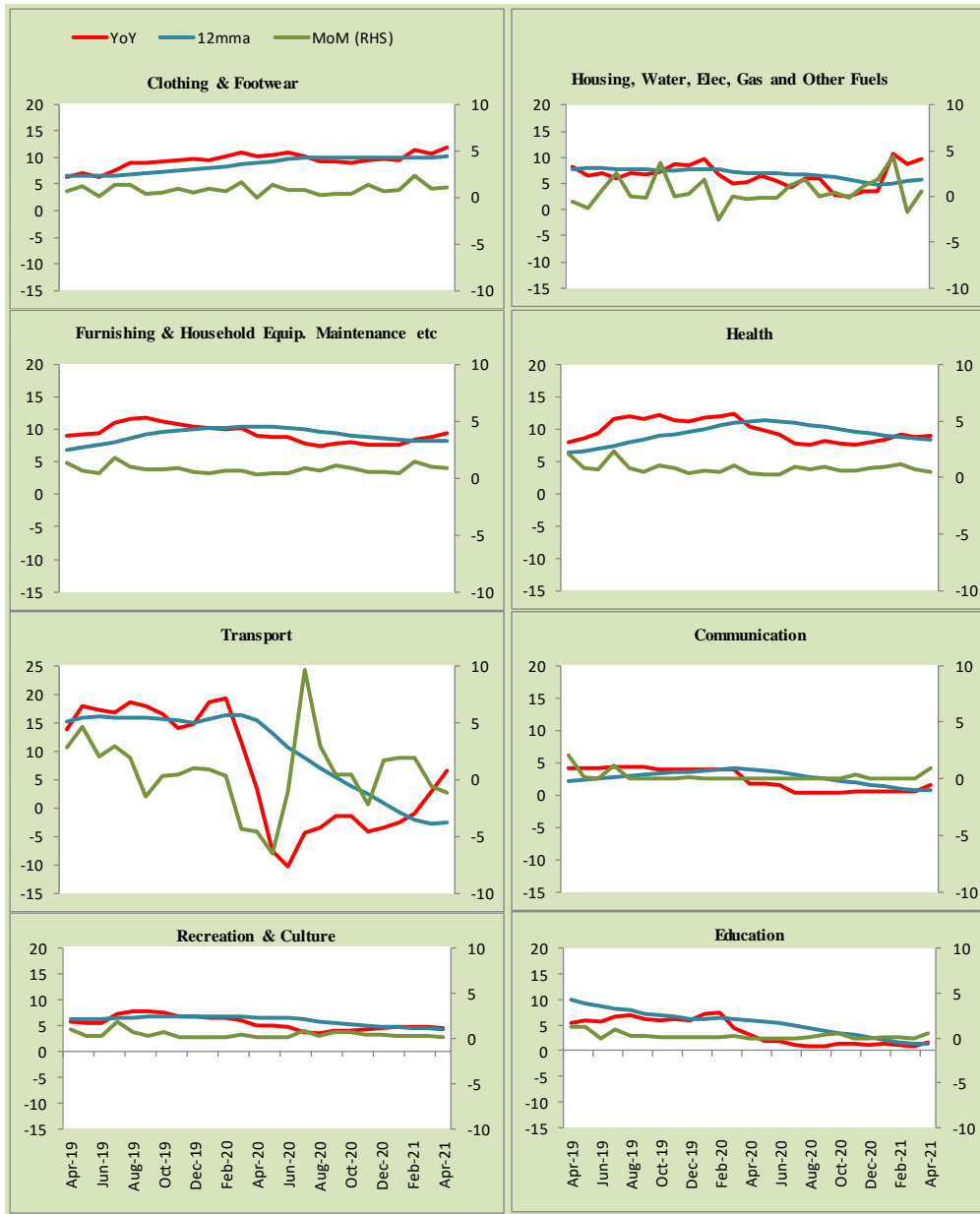


Figure A2: Urban CPI Non-food Inflation (YoY, 12MMA, MoM in percent)

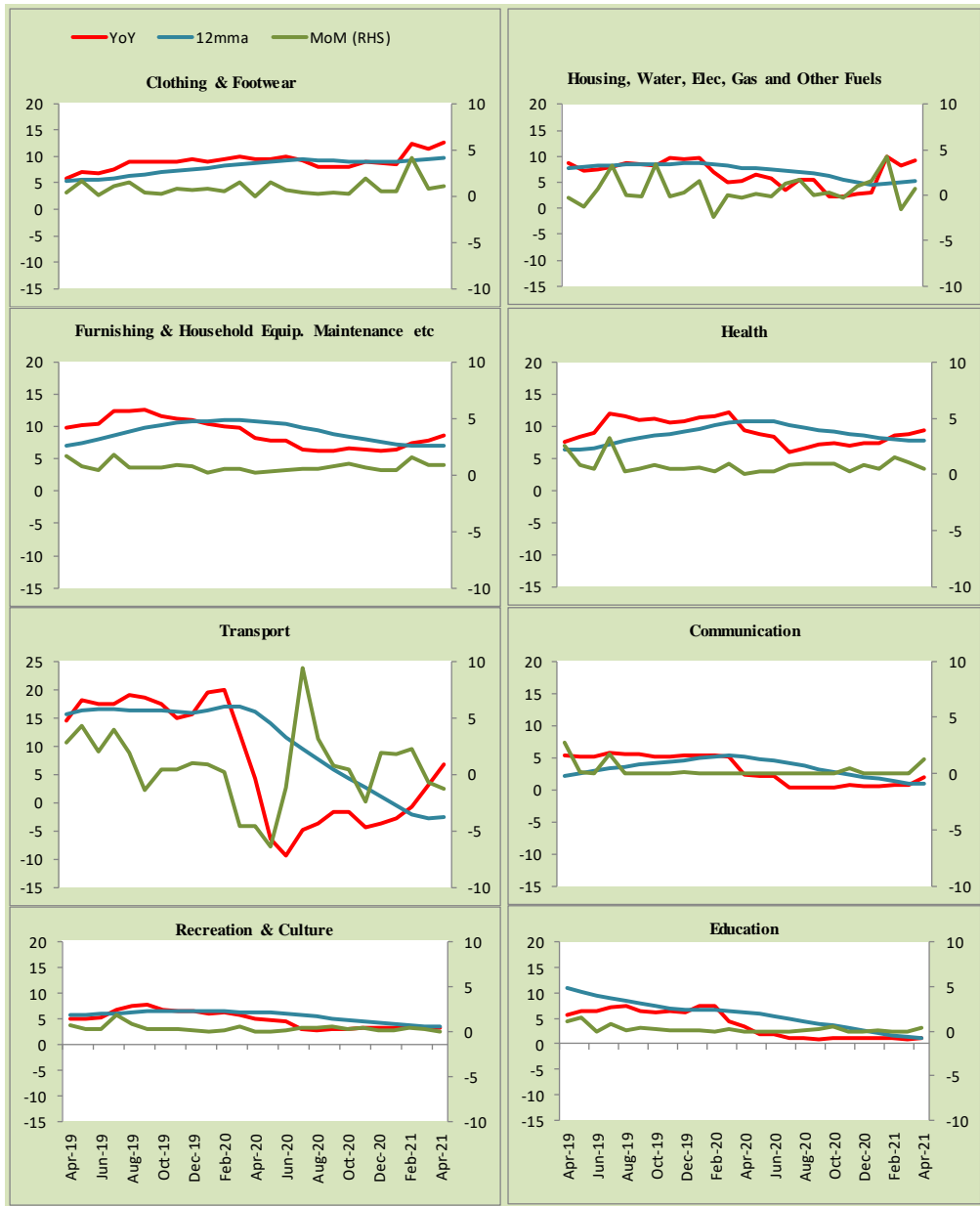
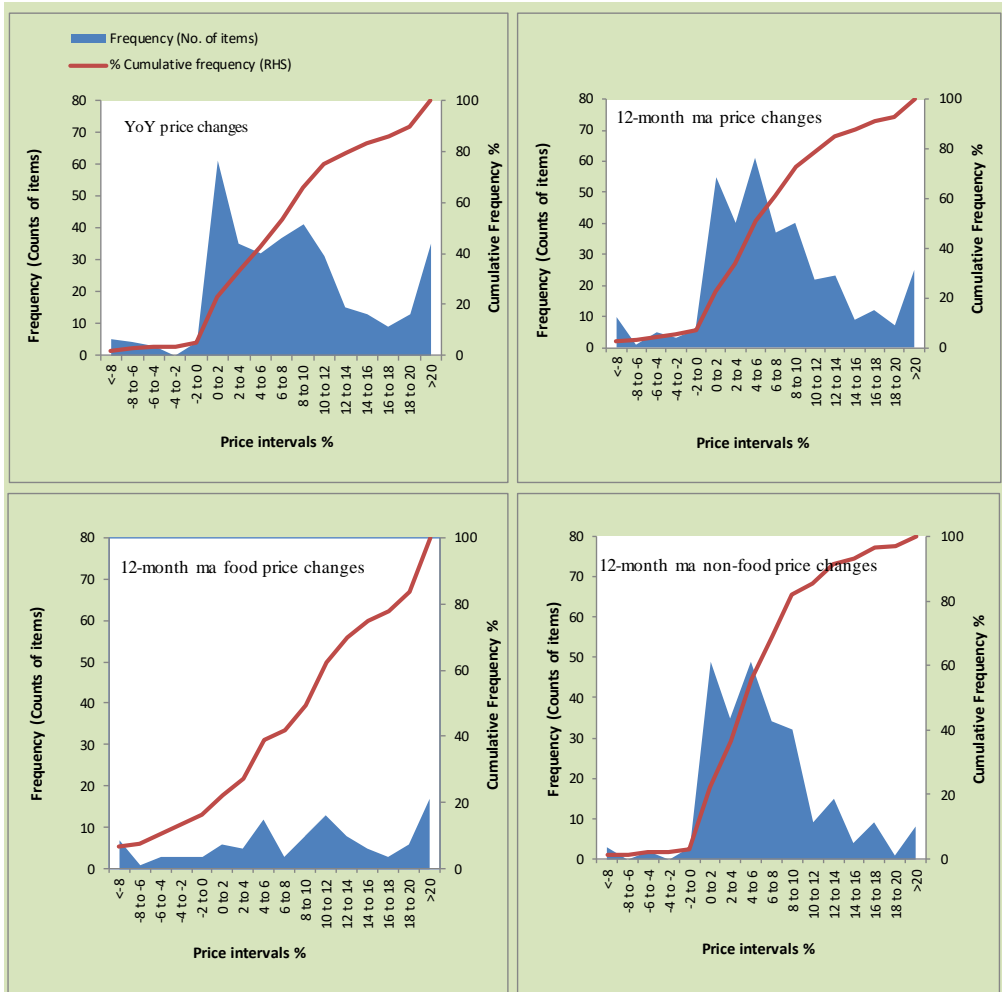


Figure A3: Rural CPI Non-food Inflation (YoY, 12MMA, MoM in percent)



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)

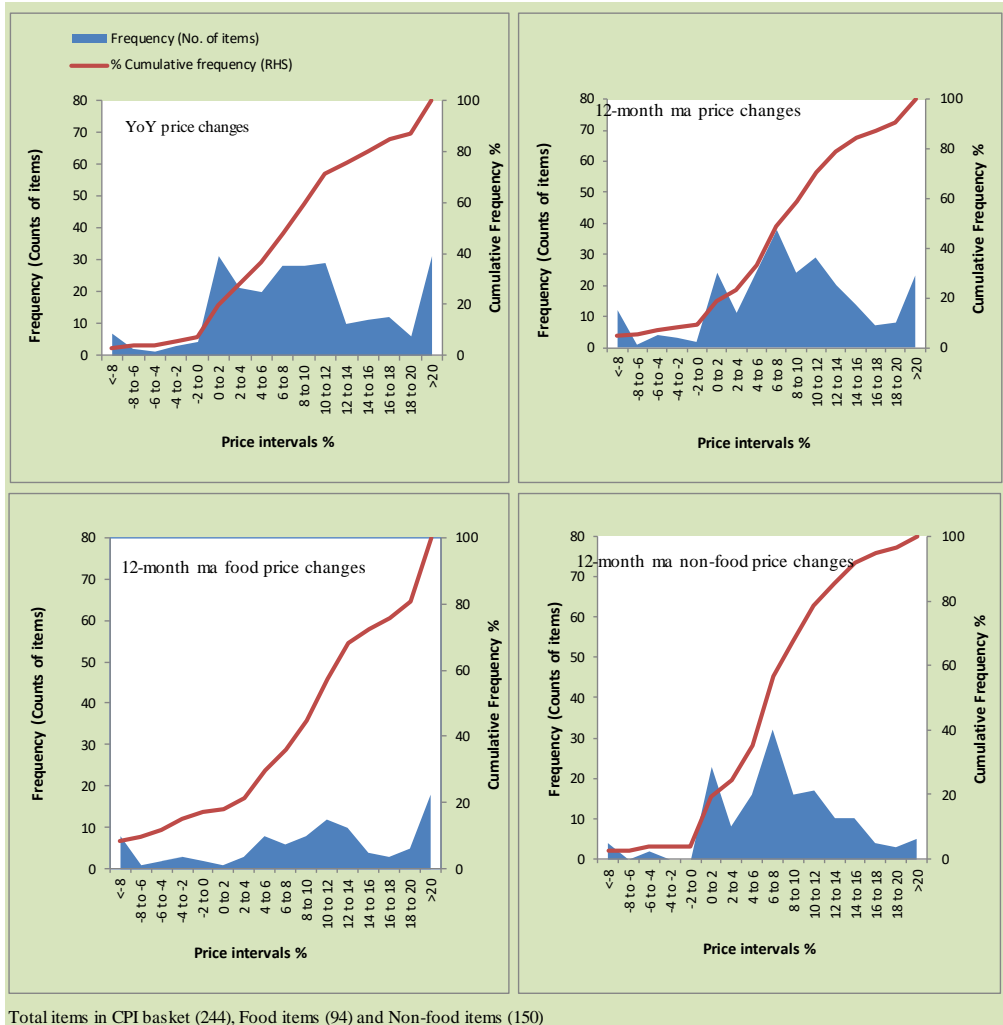
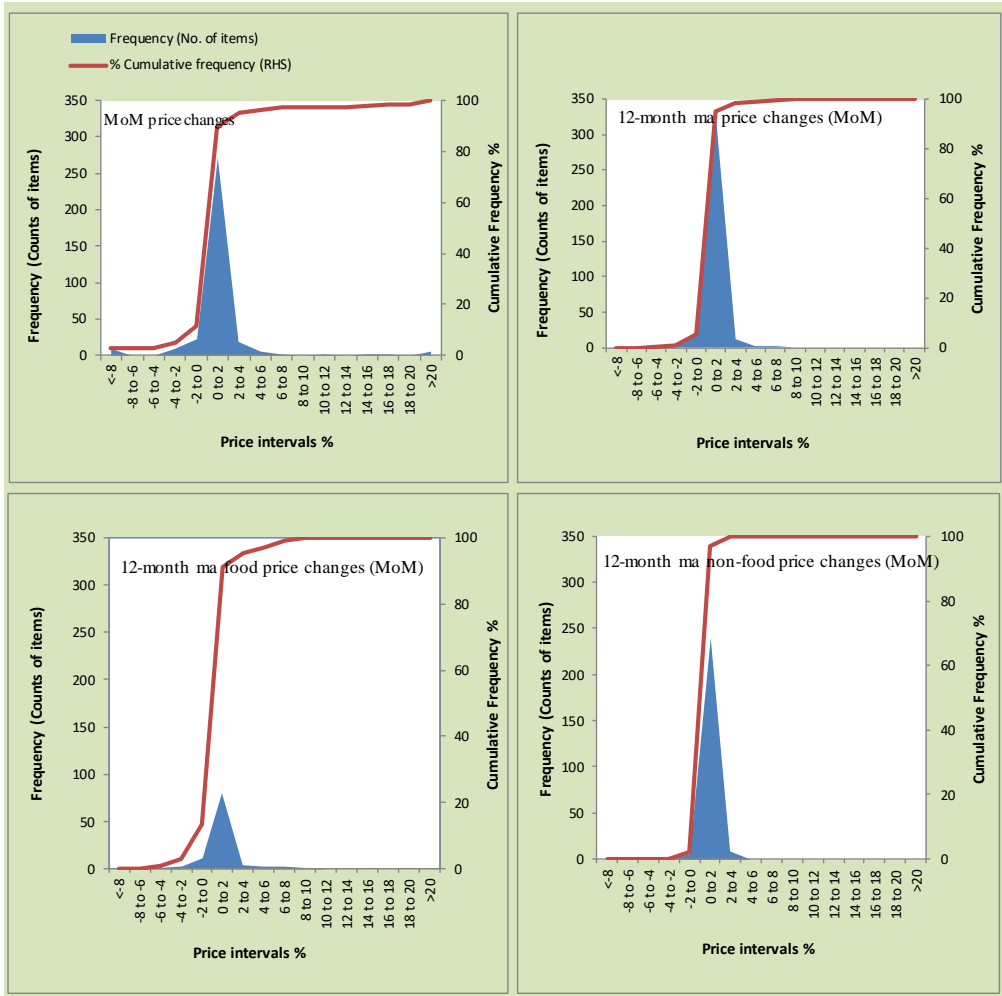
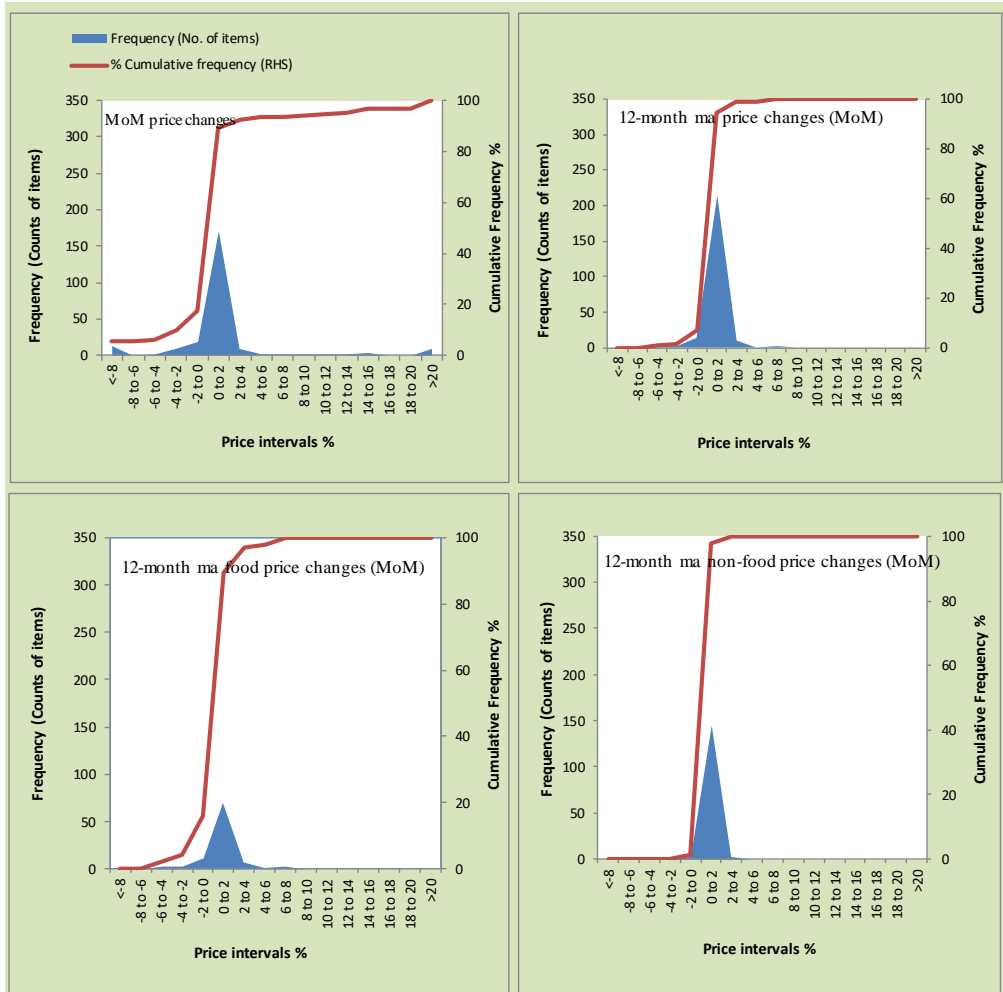


Figure A6: Frequency Distribution of Price Changes of Urban CPI Items (MoM)



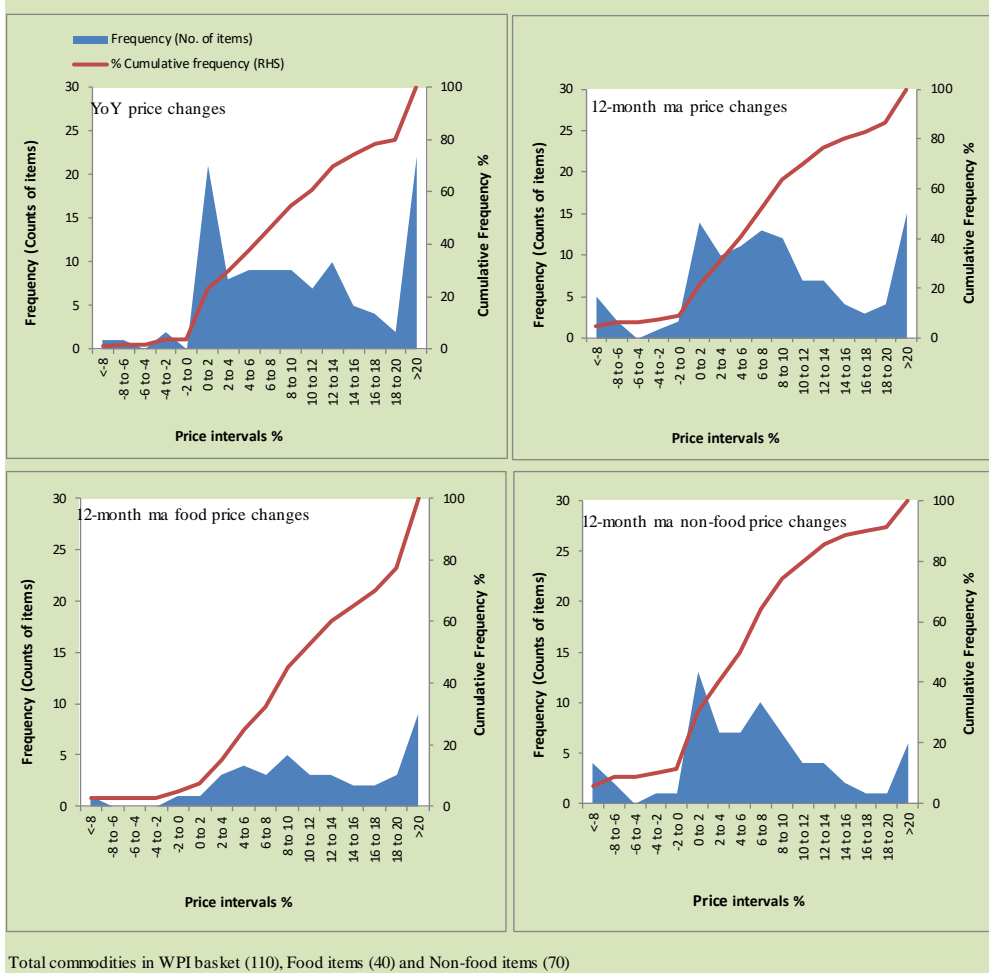
Total items in CPI basket (356), Food items (103) and Non-food items (253)

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 Co



mmodities (YoY)

Annexure B

Technical Notes, Definitions and Methodologies

a) 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 three methods:

- 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 indexes 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

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

b) 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.