

Inflation Monitor

August 2015



State Bank of Pakistan

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Review

Inflation in Brief

1. Headline CPI inflation (2007-08=100) is recorded at 1.7 percent on year-on-year basis in August 2015 compared to 1.8 percent in the previous month and 7.0 percent in the corresponding month of last year.
2. CPI inflation on month-on-month basis is recorded at 0.2 percent in August 2015 compared to 0.4 percent in the previous month and 0.3 percent during the corresponding month of last year. Seasonally adjusted month-on-month CPI inflation is recorded at -0.01 percent in August 2015 compared to -0.6 percent in the previous month.
3. Core inflation (trimmed) on year-on-year basis remained at level of 2.8 percent in August 2015 as in the previous month and 7.1 percent during the corresponding month of last year.
4. On month-on-month basis, the Core inflation (trimmed) recorded at 0.1 percent in August 2015 compared to 0.5 percent in the previous and 0.2 percent in the corresponding month of last year.
5. Non-food, non-energy inflation measured by CPI Core (NFNE) on year-on-year basis remained at level of 4.1 percent in August 2015 as in the previous month. It was 7.8 percent in the corresponding month of last year.
6. Core NFNE inflation on month-on-month basis decreased to 0.1 percent in August 2015 compared to 0.6 percent in the previous month. Core NFNE index was 0.2 percent higher in August 2014.
7. WPI inflation on year-on-year basis remained at level of -2.9 percent in August 2015 as in the previous month. During August 2014, WPI inflation was recorded at 3.3 percent.

8. WPI inflation on month-on-month basis recorded at -0.5 percent in August 2015 compared to -0.4 percent in the previous and -0.5 percent in the corresponding month of last year.
9. SPI inflation on year-on-year basis decreased to -1.3 percent in August 2015 compared to -0.5 percent in the previous month. It was 6.8 percent in the corresponding month of last year.
10. SPI inflation on month-on-month basis recorded at -0.4 percent in August 2015 compared to 0.4 percent in the previous and corresponding month of last year.

1.1 A New Measure of Core Inflation

A new method of permanently excluding relatively volatile commodities from CPI basket in Pakistan has been developed by SBP. This is achieved by making use of trimming approach on past data on monthly CPI changes to isolate a Relatively Stable Component of CPI (RSC-CPI) as a new measure of core inflation. This method ensures inclusion of both food and non-food commodities that show persistent price behavior in Pakistan (see technical notes for details). Developments in core inflation measured by RSC- CPI for the month of August 2015 are described below:

- Core RSC inflation on year-on-year basis is recorded at 4.4 percent in August 2015 as in the previous month and 8.0 percent in the corresponding month of last year.
- Core RSC inflation on month-on-month basis is recorded at 0.2 percent in August 2015 compared to 0.6 percent in the previous month and 0.2 percent in the corresponding month of last year.

Monthly CPI, WPI and SPI data is summarized in the following table.

Table 1.1 Inflation Trends (percent) (Base 2007- 08 = 100)																
Period	CPI Inflation						Core Inflation						WPI Inflation		SPI*** Inflation	
	General		Food		Non-food		NFNE*		Trimmed		RSC**					
	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM
Aug-14	7.0	0.3	5.6	0.6	8.1	0.2	7.8	0.2	7.1	0.2	8.0	0.2	3.3	-0.5	6.8	0.4
Sep-14	7.7	0.4	7.2	0.0	8.0	0.6	8.0	0.7	7.1	0.2	8.2	0.6	2.7	0.2	6.9	0.0
Oct-14	5.8	0.2	5.2	-0.2	6.2	0.5	7.8	0.6	6.0	0.4	7.9	0.6	1.3	-0.3	4.3	-0.2
Nov-14	4.0	-0.5	2.1	-0.4	5.4	-0.6	6.9	-0.5	5.3	0.1	7.2	-0.3	0.0	-1.0	-0.1	-1.0
Dec-14	4.3	-1.0	3.4	-2.1	4.9	-0.2	6.7	0.1	5.2	0.0	7.0	0.2	-0.9	-1.9	0.5	-1.3
Jan-15	3.9	0.1	3.0	-0.5	4.5	0.5	6.4	0.7	4.8	0.3	6.7	0.5	-2.4	-1.0	0.4	-0.9
Feb-15	3.2	-0.9	2.1	-1.8	4.0	-0.3	6.2	0.0	4.2	-0.2	6.4	0.0	-3.4	-1.1	-0.7	-1.4
Mar-15	2.5	0.2	0.5	0.5	3.9	0.0	5.9	0.0	3.8	0.0	6.2	0.1	-3.7	0.0	-2.4	0.0
Apr-15	2.1	1.3	0.0	1.4	3.7	1.3	5.4	1.4	3.1	0.6	5.6	1.1	-2.9	0.9	-1.6	0.7
May-15	3.2	0.8	3.0	1.8	3.3	0.0	4.9	0.0	3.9	0.1	5.1	0.2	-1.8	1.1	0.8	1.5
Jun-15	3.2	0.6	3.2	1.2	3.2	0.2	4.6	0.1	3.8	0.2	4.8	0.7	-2.0	1.2	0.9	1.3
Jul-15	1.8	0.4	0.6	0.1	2.7	0.5	4.1	0.6	2.8	0.5	4.4	0.6	-2.9	-0.4	-0.5	0.4
Aug-15	1.7	0.2	0.4	0.3	2.7	0.2	4.1	0.1	2.8	0.1	4.4	0.2	-2.9	-0.5	-1.3	-0.4
* NFNE is Non-food non-energy ** Relatively Stable Component of CPI *** SPI for all income groups combined																

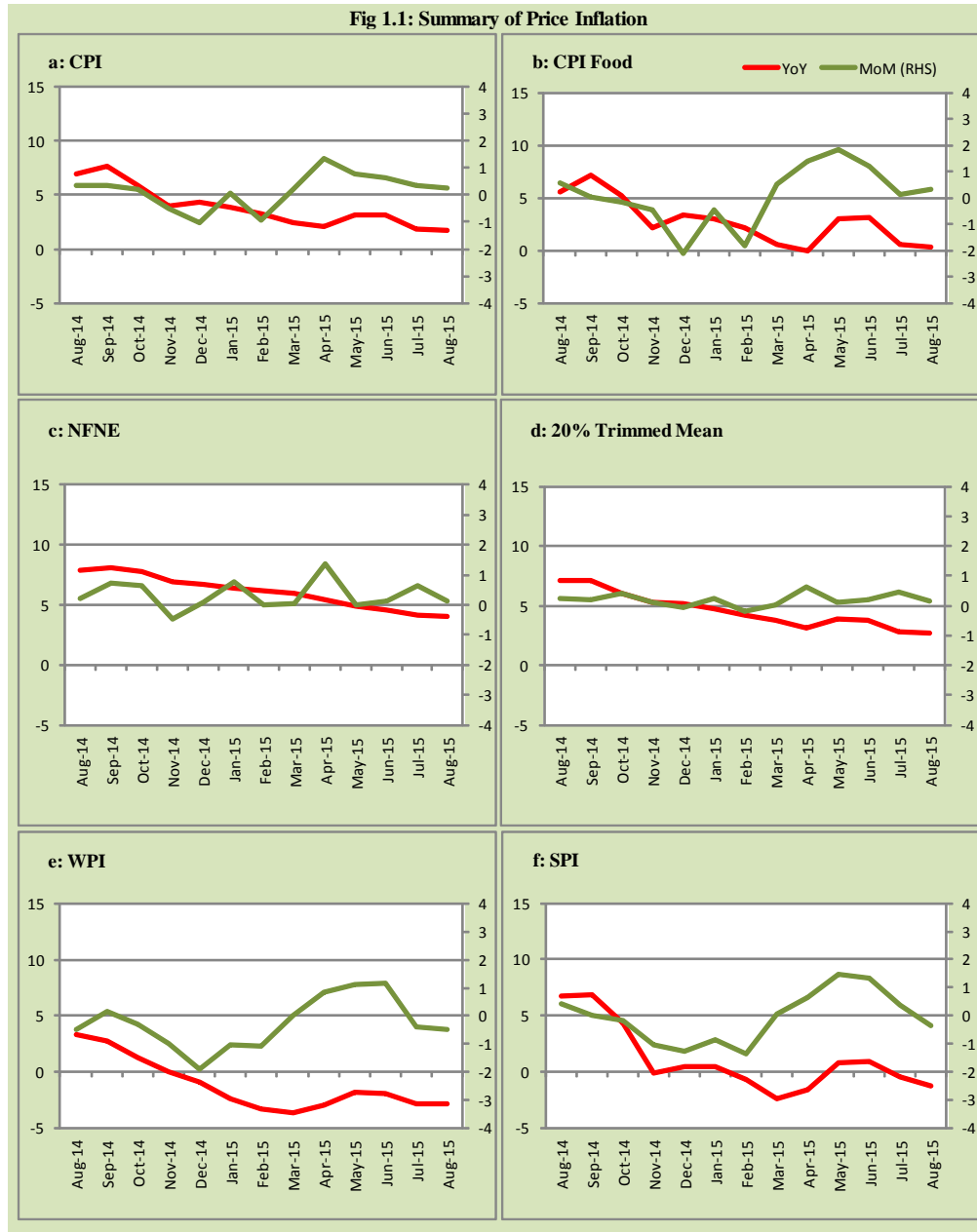
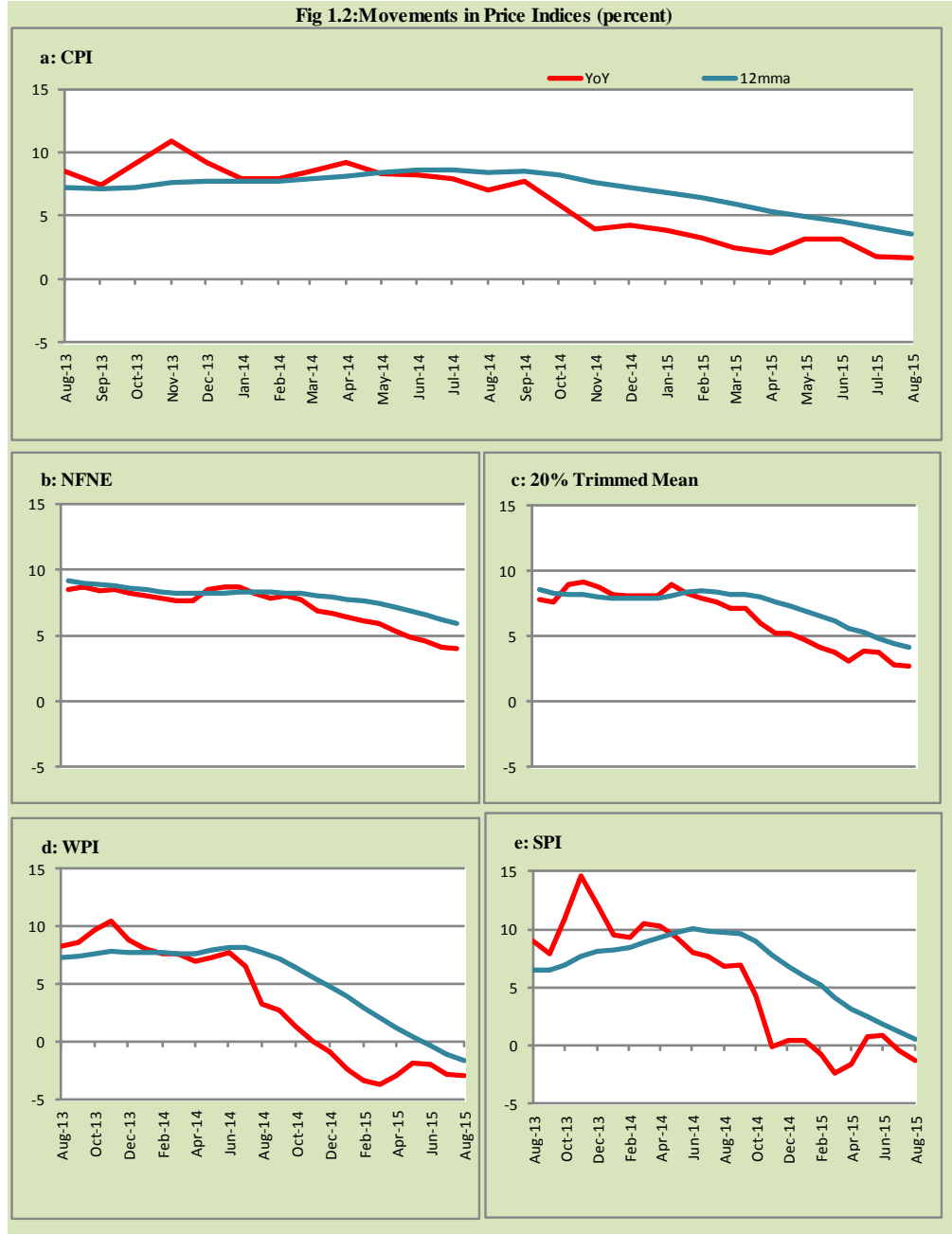


Fig 1.2: Movements in Price Indices (percent)



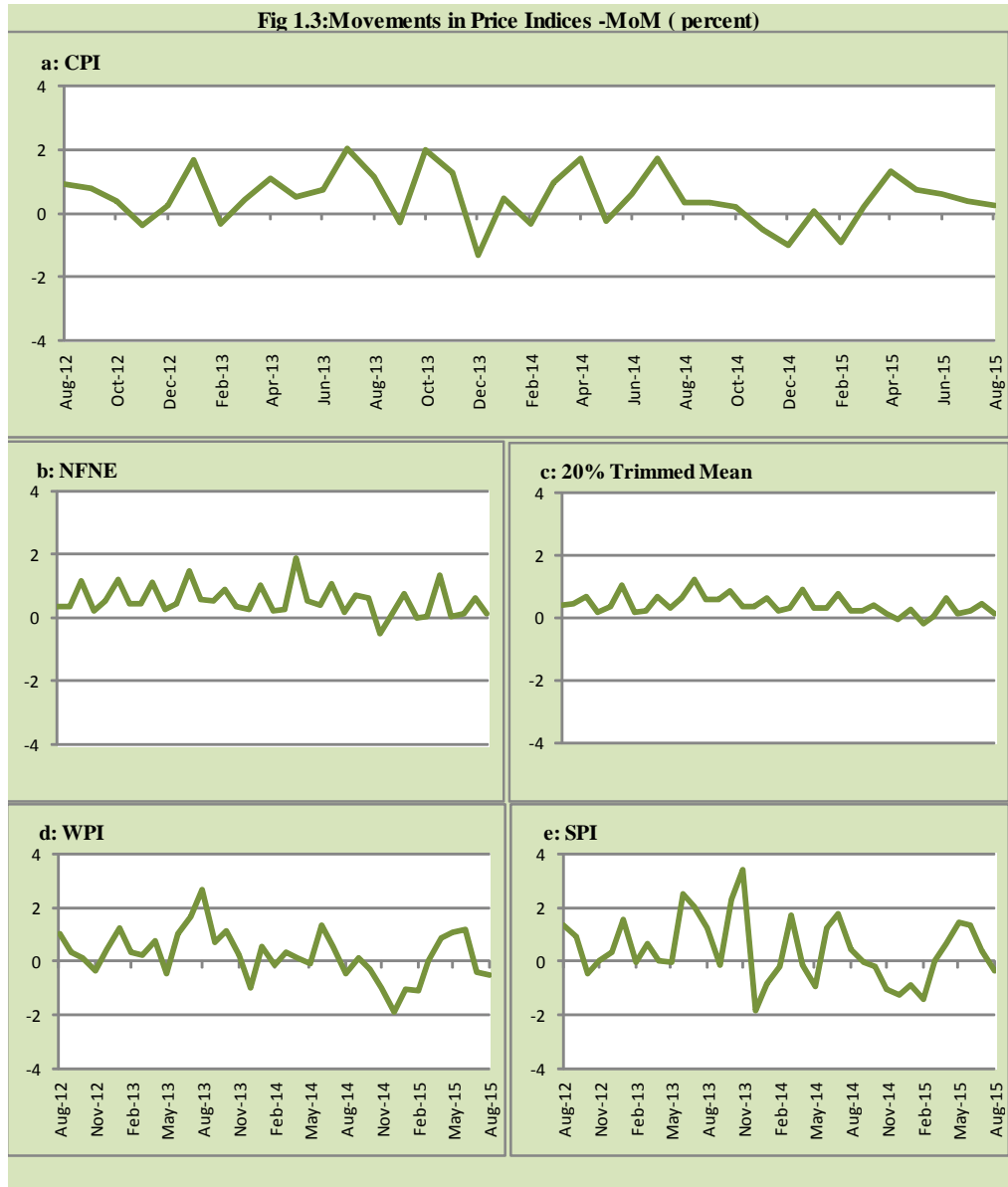
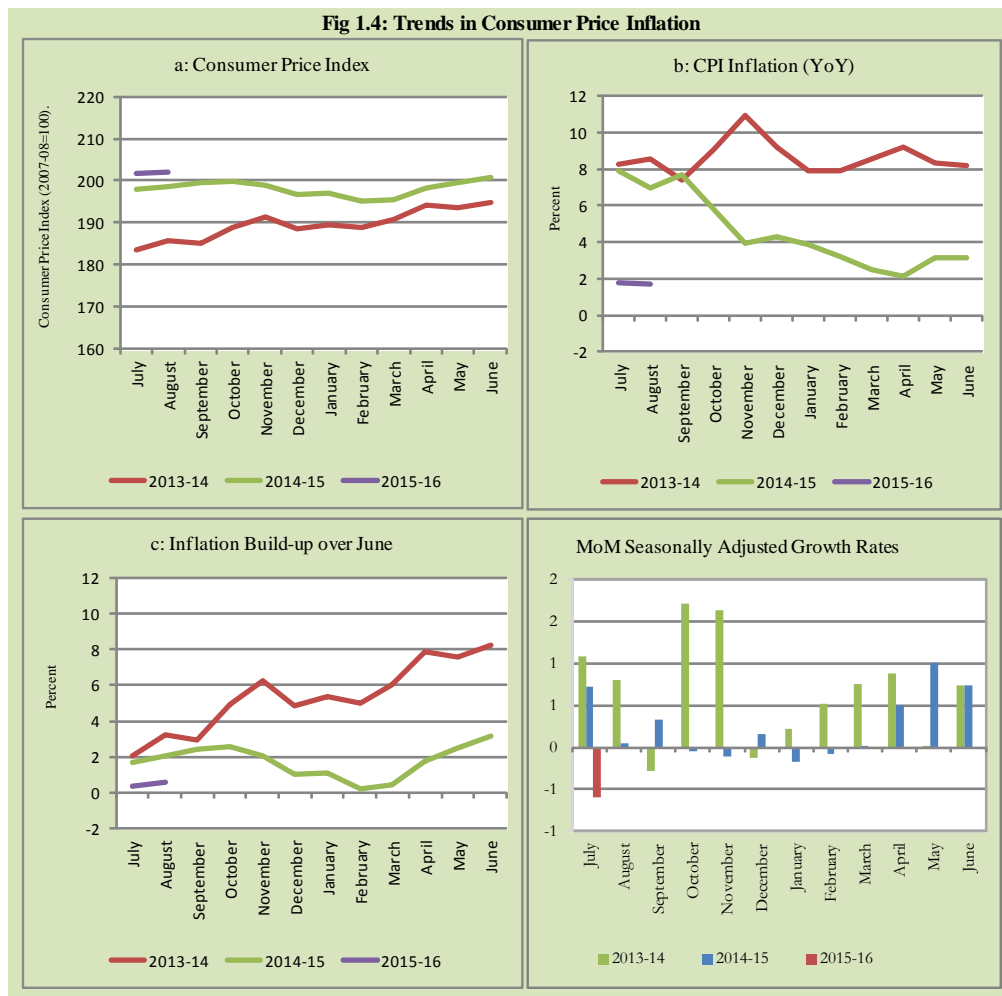


Fig 1.4: Trends in Consumer Price Inflation



2. City wise Inflation

CPI Inflation on year-on-year basis in federal and provincial capitals of Pakistan showed mixed trend during August 2015. Among these five cities, the lowest inflation was observed in Quetta at 0.1 percent while the highest inflation was observed in Karachi at 3.8 percent (Table A6 of annexure-A).

Table 2.1 City-wise Inflation of Selected Cities (percent)						
	Aug-14		Jul-15		Aug-15	
	MoM	YoY	MoM	YoY	MoM	YoY
Overall CPI	0.3	7.0	0.4	1.8	0.2	1.7
Islamabad	0.8	14.2	0.6	3.5	0.6	3.3
Karachi	-0.2	7.9	1.0	2.9	0.7	3.8
Lahore	0.6	9.3	0.1	1.6	0.5	1.6
Peshawar	1.0	7.8	-0.1	3.0	1.2	3.1
Quetta	-0.3	4.9	0.6	1.0	-1.2	0.1

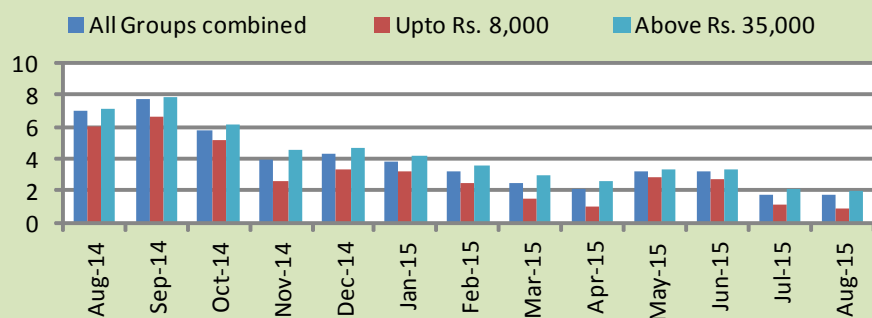
3. Income Group wise Inflation

Income group- wise data shows that income group above Rs. 35,000 witnessed higher inflation than the overall inflation in CPI basket during August 2015 except in non-food group. The lowest income group (Up to Rs. 8, 000) has the lowest inflation in general and food groups and highest inflation in non-food group among the income groups during the month of August 2015 (Table A7 of annexure-A).

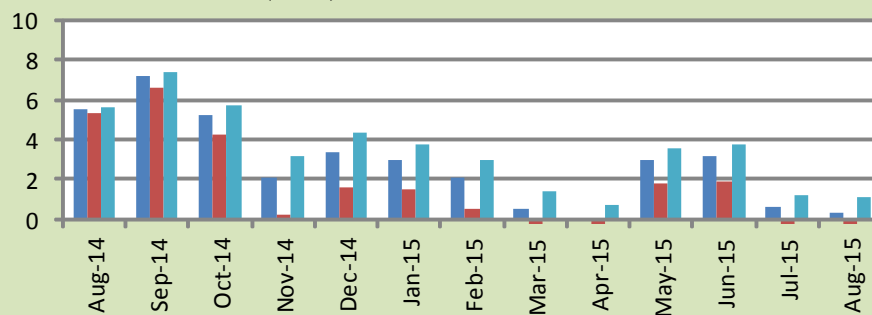
Table 3.1 Income Group- wise Inflation (YoY)									
Income Groups	General			Food			Non-food		
	Aug-14	Jul-15	Aug-15	Aug-14	Jul-15	Aug-15	Aug-14	Jul-15	Aug-15
All Groups Combined	7.0	1.8	1.7	5.6	0.6	0.4	8.1	2.7	2.7
Up to Rs. 8,000	6.0	1.1	0.9	5.3	-0.6	-1.1	6.8	3.5	3.4
Rs. 8,001- 12,000	6.0	1.3	1.1	5.4	-0.2	-0.6	6.6	3.1	3.0
Rs. 12,001- 18,000	7.1	1.6	1.4	5.5	0.2	-0.1	8.7	2.9	3.0
Rs. 18,001- 35,000	7.3	1.7	1.6	5.6	0.6	0.4	8.7	2.5	2.7
Above Rs. 35,000	7.2	2.1	2.0	5.7	1.2	1.1	8.0	2.6	2.5

Fig 3.1: Income Group- wise Inflation

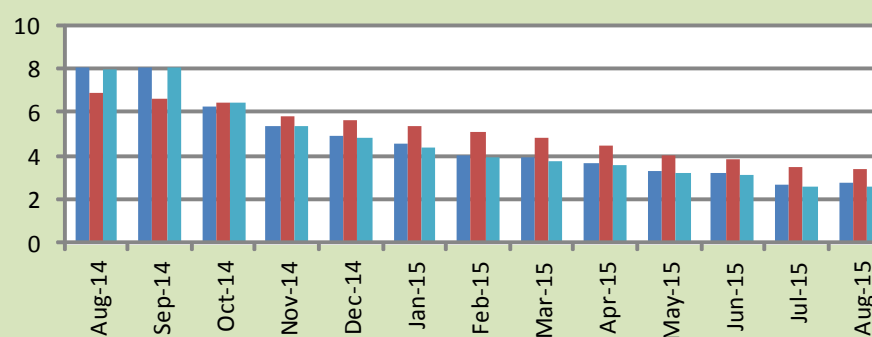
a: CPI Overall Inflation (YoY)



b: CPI Food Inflation (YoY)



c: CPI Non-Food Inflation (YoY)



4. Weighted Contribution

The weighted contribution of food group in the overall inflation decreased to 8.83 percent during August 2015 from 14.00 percent in July 2015. It was 34.01 percent in August 2014.

The weighted contribution of non-food group increased to 91.17 percent in August 2015 from 86.00 percent in July 2015.

Table 4.1 Weighted Contribution to CPI Inflation (YoY)						
Period	Food	Clothing & Footwear	Housing, Water, Elect, Gas & Other Fuel	Transport	Education	Others
Aug-14	34.01	10.38	31.84	4.47	7.72	11.58
Sep-14	39.62	9.25	28.86	5.35	7.05	9.87
Oct-14	37.95	11.43	24.68	5.10	8.79	12.05
Nov-14	22.63	16.74	37.56	-6.13	12.74	16.45
Dec-14	33.26	16.16	34.82	-10.53	11.70	14.59
Jan-15	32.11	16.52	38.34	-15.65	12.84	15.84
Feb-15	26.97	18.93	45.83	-25.78	15.39	18.66
Mar-15	8.95	23.54	58.95	-31.96	19.90	20.62
Apr-15	-0.64	26.66	59.33	-33.22	23.40	24.46
May-15	39.65	15.58	39.67	-21.47	13.19	13.38
Jun-15	41.77	14.28	39.36	-19.53	11.71	12.40
Jul-15	14.00	21.50	63.20	-39.86	19.70	21.46
Aug-15	8.83	22.38	70.56	-43.68	20.56	21.35

5. Inflation Diffusion Index

Table 5.1 Inflation Diffusion Index - based on MoM change

	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15
General	41.2	46.2	30.9	33.7	25.4	23.0	18.2	14.9	25.8	23.1	31.1	36.7	33.4
Food & Non-Alcoholic Beverages	39.8	43.0	38.3	35.7	2.7	18.6	-3.6	1.8	0.0	32.7	18.6	36.8	35.4
Alcoholic Beverages & Tobacco	50.0	0.0	33.3	33.3	-33.3	-33.3	33.3	-16.7	16.7	100.0	100.0	66.7	33.3
Clothing & Footwear	50.8	71.2	32.2	67.8	55.9	49.2	23.7	35.6	49.2	30.5	50.8	55.9	57.6
Housing, Water, Elect, Gas & other Fuels	33.3	33.3	30.6	25.0	11.1	27.8	0.0	11.1	38.9	13.9	30.6	47.2	38.9
Furnishing & Household Equip. Maintenance etc	75.4	76.8	43.5	65.2	56.5	56.5	59.4	33.3	52.2	42.0	73.9	71.0	50.7
Health	12.8	20.5	12.8	17.9	25.6	23.1	20.5	10.3	5.1	7.7	17.9	12.8	10.3
Transport	23.3	44.2	4.7	-7.0	4.7	-39.5	-16.3	-4.7	-2.3	4.7	11.6	9.3	0.0
Communication	16.7	25.0	8.3	16.7	33.3	8.3	33.3	0.0	25.0	0.0	8.3	16.7	8.3
Recreation & Culture	17.9	20.5	12.8	10.3	15.4	7.7	10.3	10.3	30.8	2.6	0.0	7.7	10.3
Education	25.0	18.8	18.8	0.0	0.0	0.0	0.0	6.3	37.5	0.0	0.0	0.0	12.5
Restaurant & Hotels	66.7	83.3	66.7	0.0	100.0	33.3	66.7	50.0	50.0	50.0	50.0	33.3	33.3
Miscellaneous	60.0	48.6	60.0	37.1	42.9	40.0	57.1	31.4	45.7	17.1	34.3	37.1	57.1
NFNE	42.0	49.7	29.6	34.3	34.3	26.9	25.7	19.8	33.7	18.6	33.7	37.0	33.4

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

6. Domestic Commodity Prices

Table 6.1 Inflation in Domestic CPI Food Commodities

Sr. No	Item	Unit	Aug-14		Jul-15		Aug-15	
			YoY	MoM	YoY	MoM	YoY	MoM
1	Wheat	10 Kg	2.22	2.88	-3.83	0.84	-7.14	-0.66
2	Wheat Flour Bag	10 Kg	3.31	3.98	-2.19	0.55	-6.65	-0.76
3	Rice Basmati Sup. Qlty.	Kg	5.21	0.17	-10.13	-0.71	-11.63	-1.50
4	Pulse Masoor (Washed)	Kg	15.04	-0.03	8.45	-0.32	8.61	0.12
5	Pulse Moong (Washed)	Kg	21.54	-4.70	1.51	-1.73	3.69	-2.66
6	Pulse Mash (Washed)	Kg	16.61	4.41	21.30	-0.23	17.39	1.04
7	Pulse Gram	Kg	-2.09	0.24	38.10	8.25	46.78	6.54
8	Vegetable Ghee (Loose)	Kg	1.24	-0.16	-11.84	0.10	-12.26	-0.63
9	Sugar Refined	Kg	5.23	2.02	15.53	5.37	13.68	0.38
10	Milk Fresh (Unboiled)	Ltr	6.19	0.11	4.36	0.08	4.59	0.33
11	Tea- Tapal Danedar	200 Gm	-23.56	-0.23	15.89	1.83	26.73	9.10
12	Beef With Bone Av. Qlty.	Kg	7.17	1.20	4.58	1.31	4.12	0.76
13	Mutton Av. Qlty.	Kg	5.78	0.68	5.52	0.79	5.85	0.99
14	Chicken Farm Broiler (Live)	Kg	-11.45	1.19	14.04	-5.30	-6.14	-16.71
15	Eggs Farm	Doz	19.37	19.48	-1.60	1.26	-7.38	12.46
16	Potatoes	Kg	113.78	3.13	-62.50	6.81	-62.31	3.65
17	Onion	Kg	-25.21	8.93	10.67	-8.83	-1.55	-3.09
18	Tomatoes	Kg	-40.67	1.13	-11.33	-29.06	16.69	33.09
19	Ginger	Kg	81.90	-5.86	-18.83	-4.42	-23.31	-11.06
20	Garlic	Kg	3.38	11.69	24.10	1.82	13.30	1.96

7. Global Commodity Prices

Table 7.1 Changes in Major Global Indices (percent)

Item/ Group	Aug-14		Jul-15		Aug-15	
	YoY	MoM	YoY	MoM	YoY	MoM
Overall	-5.7	-3.4	-37.1	-6.9	-41.0	-9.4
Food	-4.8	-3.4	-16.6	1.7	-16.4	-3.2
Metals	-7.0	-0.3	-27.0	-7.5	-29.1	-3.3
Energy	-7.0	-4.1	-46.3	-10.1	-51.7	-13.8
Agricultural Raw Material	2.2	-2.0	-16.2	-6.4	-19.4	-5.8
Cotton	-20.2	-11.7	-13.7	0.0	-2.9	-0.7

Source: IMF

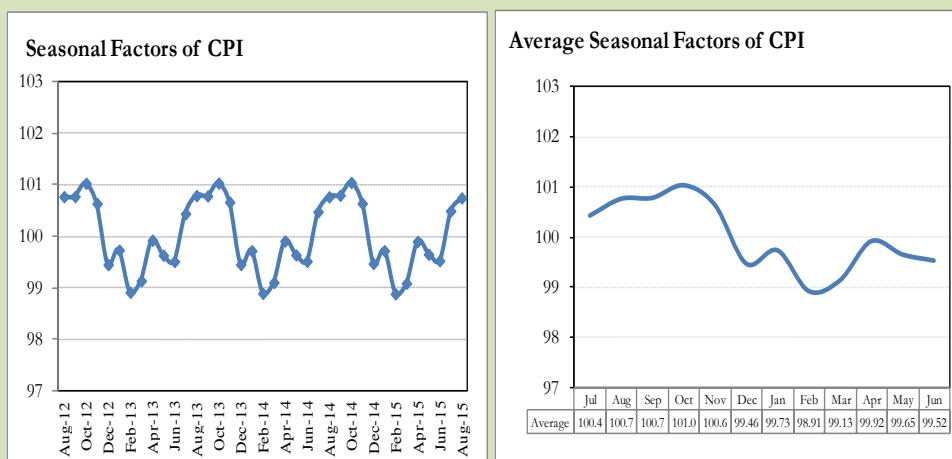
8. Seasonal Adjustment in CPI

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 they 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 Index (CPI) from July 2008 to August 2015 has been used for seasonal adjustment analysis. The seasonal analysis is carried out without taking trading-day or Islamic calendar month's effects.

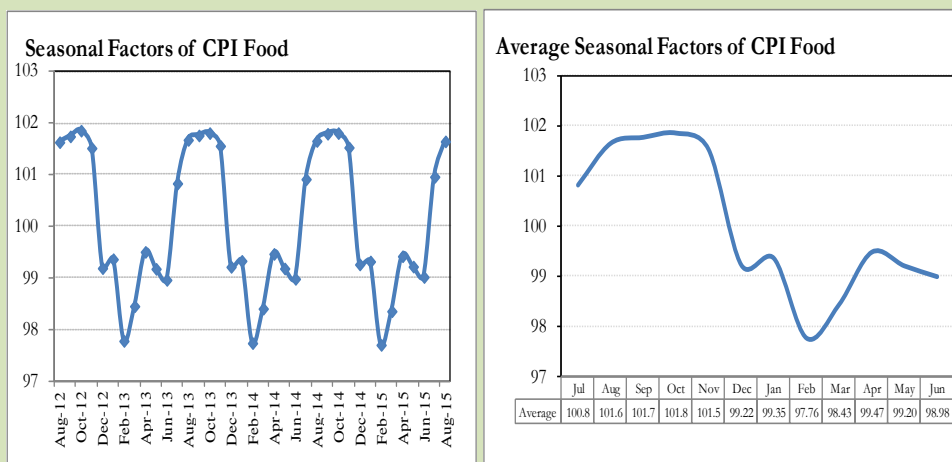
Figure 8.1 reveals that seasonality in CPI has been increasing over the period of last four years. Average seasonal factors reveal strong seasonality during the calendar year. There is an upward seasonality during the months from July to November & April and downward seasonality in the remaining months of the year. Upward and downward seasonality is above and below the trend line respectively. It is important to note that seasonal factors are estimates based on present and past experience and that future data may not necessarily show the same pattern of seasonal factors.

Fig. 8.1 Seasonal Factors of CPI



Note: Data Available in Annex Table 16.

Fig. 8.2 Seasonal Factors of CPI Food



Note: Data Available in Annex Table 17.

Figures 8.3 & 8.4 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. 8.3 Seasonal Plots of CPI

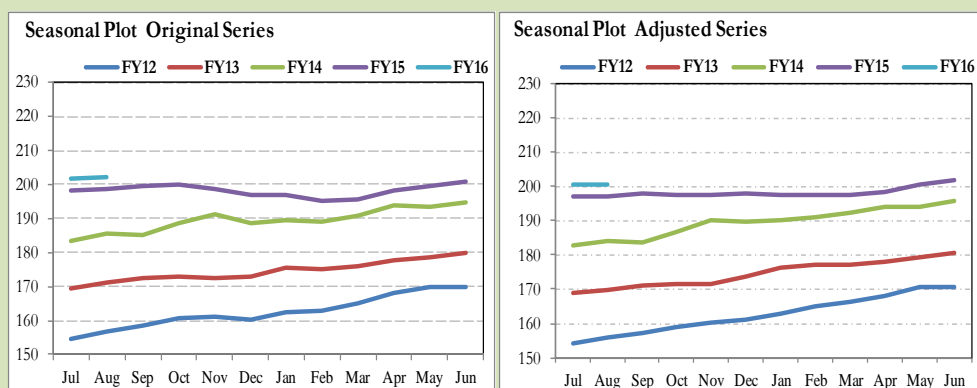
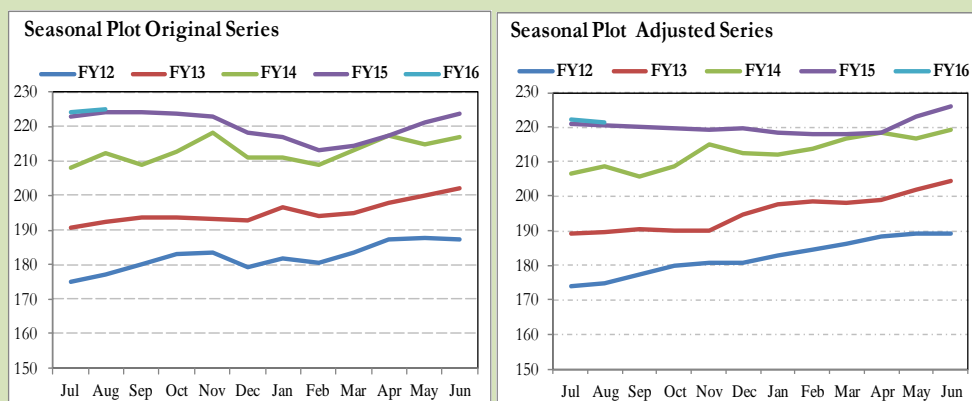


Fig. 8.4 Seasonal Plots of CPI (Food)



Seasonally adjusted CPI for August 2015 stood at 200.61 against 202.11 in original series showing a decrease of 1.50 on account of adjustment of upward seasonality in August 2015.

Seasonally adjusted CPI food group for August 2015 stood at 221.22 against 224.86 in original series showing a decrease of 3.64 on account of adjustment of upward seasonality in August 2015.

Month-on-month change of seasonally adjusted CPI series stood at -0.01% reflecting increase during August 2015 over July 2015 and an increase of 0.24% in original series.

Month-on-month change of seasonally adjusted CPI food group series stood at -0.36% reflecting increase during August 2015 over July 2015 and an increase of 0.32% in original series.

It is important to note that inflation rates should be analyzed on the basis of seasonally adjusted rates. This is especially needed for inflation rates on month-on-month basis. The most recent annual rate of inflation is usually indicated by annualizing the seasonally adjusted month-on-month rate. Annualized rate of CPI inflation in August 2015 (corresponding to the seasonally adjusted month-on-month rate) is -0.09 percent.

Fig. 8.5 Month-on-Month Percent Changes in CPI

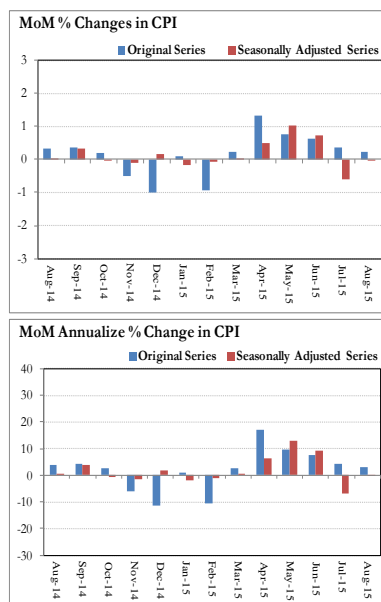
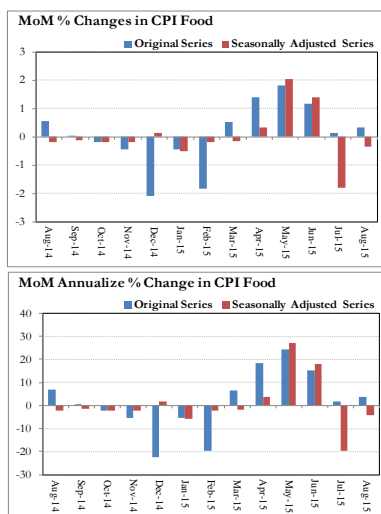


Fig. 8.6 Month-on-Month Percent Changes in CPI Food



Annexure A

Table A1: CPI Inflation by Groups (percent)							
	Weight	MoM change			YoY change		
		Aug-14	Jul-15	Aug-15	Aug-14	Jul-15	Aug-15
I. Food Group	37.5	0.6	0.1	0.3	5.6	0.6	0.4
Food & Non-Alcoholic Beverages	34.8	0.6	0.0	0.3	4.7	-0.3	-0.6
Alcoholic Beverages & Tobacco	1.4	0.3	1.7	0.0	22.6	16.6	16.2
Restaurant & Hotels	1.2	0.3	0.2	0.2	10.9	4.4	4.3
II. Non-Food Group	62.5	0.2	0.5	0.2	8.1	2.7	2.7
Clothing & Footwear	7.6	0.3	0.5	0.3	9.3	4.8	4.8
Housing, Water, Elect, Gas & other Fuels	29.4	0.0	0.9	0.3	8.9	4.5	4.8
Furnishing & Household Equip. Maintenance etc	4.2	0.5	0.9	0.3	8.7	4.5	4.3
Health	2.2	0.0	0.2	0.1	6.8	3.2	3.2
Transport	7.2	0.2	0.0	-0.3	4.2	-10.0	-10.4
Communication	3.2	0.0	0.0	0.0	0.1	0.4	0.4
Recreation & Culture	2.0	0.1	0.0	0.0	4.3	2.3	2.1
Education	3.9	0.1	0.0	0.0	15.3	9.3	9.3
Miscellaneous	2.8	0.8	-0.1	0.3	7.1	2.8	2.4
Headline	100.0	0.3	0.4	0.2	7.0	1.8	1.7

Table A2: Distribution of Price changes (YoY) of CPI basket											
Groups	% changes	No. of items in each inflation range									
		Total number of items		Decrease or no change (0% or less)		Subdued increase (>0% but <5%)		Moderate increase (5% but less than 10%)		Double digit increase (10% or more)	
		Aug-14	Aug-15	Aug-14	Aug-15	Aug-14	Aug-15	Aug-14	Aug-15	Aug-14	Aug-15
I. Food Group	0.4	128	128	24	36	21	48	32	21	51	23
Food & Non-Alcoholic Beverages	-0.6	116	116	24	36	21	42	28	19	43	19
Alcoholic Beverages & Tobacco	16.2	6	6	0	0	0	1	2	1	4	4
Restaurant & Hotels	4.3	6	6	0	0	0	5	2	1	4	0
II. Non-Food Group	2.7	348	348	76	98	70	142	115	97	87	11
Clothing & Footwear	4.8	59	59	8	8	2	23	23	26	26	2
Housing, Water, Elect, Gas & other Fuels	4.8	36	36	9	12	1	12	19	12	7	0
Furnishing & Household Equip. Maintenance etc	4.3	69	69	1	4	14	34	29	30	25	1
Health	3.2	39	39	20	21	7	12	5	4	7	2
Transport	-10.4	43	43	15	23	16	9	8	11	4	0
Communication	0.4	12	12	7	5	3	6	2	0	0	1
Recreation & Culture	2.1	39	39	12	16	13	18	11	5	3	0
Education	9.3	16	16	1	5	3	6	4	1	8	4
Miscellaneous	2.4	35	35	3	4	11	22	14	8	7	1
Overall	1.7	476	476	100	134	91	190	147	118	138	34

Note: Prices of 11 seasonal items were not reported during the month.

Table A3: Top and Bottom 15 Contributors to CPI Inflation (YoY) in August 2015					
Top 15 Contributors		Weights	YoY Change		Weighted Contribution
Items/ Contributors			Aug-14	Aug-15	
Ranked by Weighted Contribution					
1	House Rent	21.81	7.81	5.66	57.90
2	Milk Fresh	6.68	6.44	4.57	21.86
3	Education	3.94	15.31	9.29	20.56
4	Cigarette	1.39	22.78	16.38	17.88
5	Tea	0.84	-18.23	21.80	11.08
6	Electricity	4.40	15.82	3.29	9.65
7	Sugar	1.04	5.23	13.68	8.60
8	Meat	2.43	6.70	4.70	8.07
9	Fresh Fruits	1.86	-1.17	6.42	7.92
10	Tailoring	0.88	10.77	8.92	5.92
11	Pulse Gram	0.24	-2.09	46.77	5.42
12	Ready Made Garment	0.97	11.54	6.95	4.19
13	Household Servant	1.04	11.20	5.70	3.88
14	Cotton Cloth	1.73	15.16	3.64	3.81
15	Ready Made Food	1.23	10.88	4.34	3.75
Total		50.50			190.49
Bottom 15 Contributors					
1	Potatoes	0.47	113.78	-62.31	-41.61
2	Motor Fuel	3.03	3.00	-19.67	-33.25
3	Wheat Flour	4.16	3.85	-6.20	-16.81
4	Transport Services	2.70	4.17	-6.92	-11.64
5	Vegetable Ghee	2.07	1.25	-11.09	-10.64
6	Cooking Oil	1.75	1.08	-12.55	-10.45
7	Rice	1.58	2.41	-10.89	-9.87
8	Chicken	1.36	-11.45	-6.14	-4.95
9	Egg	0.46	19.37	-7.38	-2.09
10	Wheat	0.35	2.22	-7.14	-1.52
11	Onion	0.53	-25.21	-1.55	-0.61
12	Fish	0.30	7.24	-2.55	-0.48
13	Motor Vehicle Accessories	0.24	5.06	-1.00	-0.16
14	Wheat Product	0.10	11.33	-2.57	-0.16
15	Mustard Oil	0.10	0.84	-3.33	-0.15
Total		19.20			-144.38

Table A3.1: Top and Bottom 15 Contributors to CPI Inflation (MoM) in August 2015

<u>Top 15 Contributors</u>		Weights	<u>MoM Change</u>		Weighted Contribution
Items/ Contributors			Jul-15	Aug-15	
Ranked by Weighted Contribution					
1	Fresh Vegetable	1.68	-3.74	17.87	131.78
2	Tomatoes	0.44	-29.06	33.09	44.25
3	Electricity	4.40	0.00	1.47	30.52
4	Tea	0.84	1.33	7.21	28.96
5	Egg	0.46	1.26	12.46	20.21
6	Milk Fresh	6.68	0.07	0.32	11.04
7	Meat	2.43	1.14	0.83	10.37
8	Pulse Gram	0.24	8.26	6.54	7.27
9	Potatoes	0.47	6.81	3.65	6.18
10	Personal Care	1.49	0.22	0.51	3.23
11	Besan	0.15	5.63	4.39	3.05
12	Cotton Cloth	1.73	0.23	0.39	2.96
13	Washing Soap & Detergent	0.79	0.47	0.70	2.53
14	Household Textile	0.65	0.12	0.89	2.46
15	Woolen Cloth	0.88	0.21	0.58	2.45
Total		23.32			307.26
Bottom 15 Contributors					
1	Chicken	1.36	-5.30	-16.71	-105.66
2	Fresh Fruits	1.86	7.20	-8.82	-88.41
3	Motor Fuel	3.03	0.01	-0.99	-9.45
4	Onion	0.53	-8.83	-3.09	-8.60
5	Wheat Flour	4.16	0.62	-0.44	-7.73
6	Pulse Moong	0.23	-1.73	-2.66	-3.88
7	Cooking Oil	1.75	-0.90	-0.37	-1.86
8	Vegetable Ghee	2.07	0.19	-0.31	-1.82
9	Dry Fruits	0.25	-0.66	-0.92	-1.20
10	Wheat	0.35	0.84	-0.67	-0.92
11	Rice	1.58	-0.55	-0.09	-0.52
12	Kerosene Oil	0.01	0.07	-3.37	-0.09
13	Fish	0.30	-1.03	-0.01	-0.02
14	Woolen Readymade Garments	0.40	0.00	0.00	0.00
15	Gas	1.58	0.00	0.00	0.00
Total		19.47			-230.16

Table A3.2: Top Fifteen Contributors to CPI Inflation (YoY) in August 2015					
Items/ Contributors		Weights	YoY Change		Weighted Contribution
			Aug-14	Aug-15	
A. Ranked by Percentage Change					
1	Pulse Gram	0.24	-2.09	46.77	5.42
2	Besan	0.15	-2.76	39.41	2.95
3	Tea	0.84	-18.23	21.80	11.08
4	Pulse Mash (Washed)	0.21	16.61	17.39	2.33
5	Tomatoes	0.44	-40.67	16.69	3.66
6	Cigarette	1.39	22.78	16.38	17.88
7	Gram Whole	0.16	-0.98	14.66	1.24
8	Sugar	1.04	5.23	13.68	8.60
9	Woolen Readymade Garments	0.40	13.45	10.31	2.62
10	Gur	0.02	-4.15	9.94	0.17
11	Sewing Needle & Dry Cell	0.15	8.18	9.77	0.78
12	Education	3.94	15.31	9.29	20.56
13	Tailoring	0.88	10.77	8.92	5.92
14	Pulse Masoor	0.27	14.90	8.65	1.24
15	Construction Wage Rate	0.33	7.79	7.15	1.41
Total		10.47			85.86
B. Ranked by Weights					
1	House Rent	21.81	7.81	5.66	57.90
2	Milk Fresh	6.68	6.44	4.57	21.86
3	Electricity	4.40	15.82	3.29	9.65
4	Wheat Flour	4.16	3.85	-6.20	-16.81
5	Education	3.94	15.31	9.29	20.56
6	Communication & Apparatus	3.15	0.14	0.20	0.23
7	Motor Fuel	3.03	3.00	-19.67	-33.25
8	Transport Services	2.70	4.17	-6.92	-11.64
9	Meat	2.43	6.70	4.70	8.07
10	Vegetable Ghee	2.07	1.25	-11.09	-10.64
11	Fresh Fruits	1.86	-1.17	6.42	7.92
12	Cooking Oil	1.75	1.08	-12.55	-10.45
13	Cotton Cloth	1.73	15.16	3.64	3.81
14	Fresh Vegetable	1.68	14.98	0.21	0.27
15	Rice	1.58	2.41	-10.89	-9.87
Total		63.00			37.62
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 CPI, which is 1.7 percent in August, 2015.					

Table A3.3: Top Ten Contributors to CPI Food Inflation (YoY) in August 2015

Items/ Contributors		Weights	YoY Change		Weighted Contribution
			Aug-14	Aug-15	
A. Ranked by Weighted Contribution					
1	Milk Fresh	6.68	6.44	4.57	21.86
2	Cigarette	1.39	22.78	16.38	17.88
3	Tea	0.84	-18.23	21.80	11.08
4	Sugar	1.04	5.23	13.68	8.60
5	Meat	2.43	6.70	4.70	8.07
6	Fresh Fruits	1.86	-1.17	6.42	7.92
7	Pulse Gram	0.24	-2.09	46.77	5.42
8	Ready Made Food	1.23	10.88	4.34	3.75
9	Tomatoes	0.44	-40.67	16.69	3.66
10	Besan	0.15	-2.76	39.41	2.95
Total		16.30			91.20
B. Ranked by Percentage Change					
1	Pulse Gram	0.24	-2.09	46.77	5.42
2	Besan	0.15	-2.76	39.41	2.95
3	Tea	0.84	-18.23	21.80	11.08
4	Pulse Mash (Washed)	0.21	16.61	17.39	2.33
5	Tomatoes	0.44	-40.67	16.69	3.66
6	Cigarette	1.39	22.78	16.38	17.88
7	Gram Whole	0.16	-0.98	14.66	1.24
8	Sugar	1.04	5.23	13.68	8.60
9	Gur	0.02	-4.15	9.94	0.17
10	Pulse Masoor	0.27	14.90	8.65	1.24
Total		4.77			54.57
C. Ranked by Weights					
1	Milk Fresh	6.68	6.44	4.57	21.86
2	Wheat Flour	4.16	3.85	-6.20	-16.81
3	Meat	2.43	6.70	4.70	8.07
4	Vegetable Ghee	2.07	1.25	-11.09	-10.64
5	Fresh Fruits	1.86	-1.17	6.42	7.92
6	Cooking Oil	1.75	1.08	-12.55	-10.45
7	Fresh Vegetable	1.68	14.98	0.21	0.27
8	Rice	1.58	2.41	-10.89	-9.87
9	Cigarette	1.39	22.78	16.38	17.88
10	Chicken	1.36	-11.45	-6.14	-4.95
Total		24.98			3.30
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 CPI Food, which is 0.4 percent in August, 2015.					

Table A3.4: Top Ten Contributors to CPI Non-food Inflation (YoY) in August 2015					
Items/ Contributors		Weights	YoY Change		Weighted Contribution
			Aug-14	Aug-15	
A. Ranked by Weighted Contribution					
1	House Rent	21.81	7.81	5.66	57.90
2	Education	3.94	15.31	9.29	20.56
3	Electricity	4.40	15.82	3.29	9.65
4	Tailoring	0.88	10.77	8.92	5.92
5	Ready Made Garment	0.97	11.54	6.95	4.19
6	Household Servant	1.04	11.20	5.70	3.88
7	Cotton Cloth	1.73	15.16	3.64	3.81
8	Woolen Readymade Garments	0.40	13.45	10.31	2.62
9	Personal Care	1.49	8.38	2.79	2.48
10	Household Textile	0.65	9.19	5.40	2.06
Total		37.33			113.06
1	Woolen Readymade Garments	0.40	13.45	10.31	2.62
2	Sewing Needle & Dry Cell	0.15	8.18	9.77	0.78
3	Education	3.94	15.31	9.29	20.56
4	Tailoring	0.88	10.77	8.92	5.92
5	Construction Wage Rate	0.33	7.79	7.15	1.41
6	Ready Made Garment	0.97	11.54	6.95	4.19
7	Postal Services	0.07	0.06	6.44	0.27
8	Household Servant	1.04	11.20	5.70	3.88
9	House Rent	21.81	7.81	5.66	57.90
10	Hosiery	0.51	12.03	5.60	1.85
Total		30.11			99.37
1	House Rent	21.81	7.81	5.66	57.90
2	Electricity	4.40	15.82	3.29	9.65
3	Education	3.94	15.31	9.29	20.56
4	Communication & Apparatus	3.15	0.14	0.20	0.23
5	Motor Fuel	3.03	3.00	-19.67	-33.25
6	Transport Services	2.70	4.17	-6.92	-11.64
7	Cotton Cloth	1.73	15.16	3.64	3.81
8	Gas	1.58	0.00	0.00	0.00
9	Footwear	1.55	-3.07	0.65	0.48
10	Personal Care	1.49	8.38	2.79	2.48
Total		45.39			50.22
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 CPI Non-food, which is 2.7 percent in August, 2015.					

Table A4: Distribution of Price Changes (YoY) - Selected CPI Items: August 2015

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	Potatoes, Ginger, Cooking Oil (Pakwan), Vegetable Ghee (Loose), Cooking Oil (Dalda), Rice Basmati 385/386	Coffee-Nescafe 75 Gm, Milo 200 Gm., Fruit Juice Tetra Pack, Milk Fresh (Unboiled), Cornflakes Fauji 225 Gm., Squash-Mitchelles	Gur Av.Qlty, Tomato Ketchup Ahmed/Mitchells, Pumpkin, Pulse Masoor (Whole), Pulse Masoor (Washed), Pomegranate (Annar)	Pulse Gram, Mango Kalmi, Besan Av. Qlty., Arvi, Gram Whole Black Av Qlty., Tea Lipton Yellow Label 200 Gm, Tapal Danedar Tea 200 Gm, Almonds Whole Av.Qlty., Pulse Mash (Washed), Tomatoes, Guava, Lemon
Alcoholic Beverages & Tobacco		Betel Leaves	Betel Nuts	Cigarettes Capstan 20,S, Cigarettes Morven Gold 20,S, Cigarettes K-20,S, Cigarettes Gold Leaf 20,S
Clothing & Footwear	Gents Shoe, Art 1109 Servis, Child Shoe Power Lite Bata, Gents Shoes Paul Bata, Sports Shoes, Gents Spoung Chappal Bata	Foot Wear Local (Female), Brassier Sup. Qlty, Pullover Ladies Oxford/Bon, Washing Ch. (Kamiz-Shalwar), Foot Wear Local (Children), Socks Nylon (Pakistani)	Frock W/Wear Girls, Tailoring Awami-Suit (Male), Tailoring Suit (Female), Awami-Suit W & W (Boys) 24"/26", Awami-Suit W&W (Gents)Av.Qlty	Secondhand Sweater for Men, Gloves Av.Qlty
Housing, Water, Elect, Gas & other Fuels	Kerosene Oil, Iron Bar (M.S. Bar) 1/2", Cement (Local), Elect. Charges Upto 50 Units	Elect. Charges 301 - 1000 Units, Sand (Black Pit Sand), Bricks (New) Ist Class, Firewood Whole, Bajree, Synthetic Enemal ICI	Unskilled Labour Wage Rat, Plumber Wage Rate, Electrician Wage Rate(P/Pnt), Carpenter Wage Rate, Mason (Raj) Wage Rate	
Furnishing & Household Equip. Maintenance etc	Surf Excel 400 Gms Poly Bag, Electric Blub Energy Saver 14 Watt, Sewing Machine Needle (Singer)	Pressure Cooker 4 Ltr. Tea Set Pak. China Wear 21 Pcs, Single Bed Without Foam, Sewing Machine (Singer)	Frying Pan Steel Avg. Qlty, Robin Blue (35 Gms), Towel(3'X2') Av. Qlty, Harpic, Chair Shesham Wood	Match Box (Small)
Health	Flagyl Tab. 200 Mg., Betnovate-N Ointment 5 Gm, Calcium Syrup Sandoz, Burnol Cream 30 Gm	Glycerin Small Bottle, Thermometer China, Doctor (MBBS) Clinic Fee, Septran Tablets, Sugar Test (Random/Fasting)	Gripe-Water Woodward's, X-Ray (Chest) Charges, Blood Test (Cp) Charges, Urine Test (Dr) Charges	Jouhar Joshanda, Hydryllin Syrup 120 Ml.
Transport	Petrol Super, Gas Cylinder S. Size (L.P.G), High Speed Diesel HSD, Minibus Fare Max.Within City, Bus Fare Outside City	Car Service Charges, Motor Cycle Service Charges, Cycle Overhauling Charges, Bicycle With Tyres & Tube, Car Toyota 1300 CC	Train Fare Eco. 1-100 Km., Train Fare Eco. 101-500 K, Tyre Puncture Charges, Train Fare Ist Slp. 1-100, Train Fare Ist Slp.101-500	
Communication	Postal Envelope Domestic, Mobile Cell Charges, Telephone Charges Local Call	Internet Charges, Telephone Set Av. Qlty, Fax Charges (Local), Mobile Set Nokia/Sony/Ericsson Av.Qlty		T.C.S. Ch. Min.Within Zone
Recreation & Culture	Urdu Book Class IX/X (T.B.Board), English Book Class IX or X, Radio With C.Player National, V.C.P. Panasonic/LG/National, English Book BA/B.Sc	Pencil Goldfish/Deer, Maths Book Ist. Year (T.B. Board), Urdu Book Class V (T.B.Board), Fountain Pen Hero/Wings/China, Urdu Book Ist Year/ Inter	Cinema Non-A/C High Class, Maths Book Class IX or X, Maths Book Cals V (T.B.Board), Cinema A/C High Class, English Book Class V1	
Education	Govt. Med. College Fee MBBS Ist Year, Govt. Engg. Coll. Fee Ist Year	Pvt Med. College Fee MBBS(Ist Year), I.T. Tuition Fees, MBA Tuition Fee	Govt. University Fee MSC/ MA	Pvt School Fee Eng. Med (Class-X), Pvt School Fee Eng. Med (Class-VI), Pvt School Fee Eng. Med (Class-V), Pvt School Fee Eng. Med (Class-I)
Restaurant & Hotels		Cooked Dal (Av. Hotel), Cooked Mutton (Av. Hotel), Chicken Biryani Full/Double	Tea Prepared (Ordinary)	
Miscellaneous	Toilet Soap Lux 95 Gms, Silver Tezabi 24 Ct, Gold Tezabi 24 Ct, Toothpaste Macleans 70 Gms	Hair Color (Kala Kola), Shaving Cream Touch-Me/Admiral, Toothpowder Dentonic 90 Gms	Purse Ladies (Leather) Av. Qlty, Perfume Med. Size Medora/Broche, Artificial Jewellery Set	Shaving Charges

Table A5: City- wise CPI Inflation by Income Groups, August 2015

	Up to Rs: 8000						Rs 8001- 12000					
	General		Food		Non-Food		General		Food		Non-Food	
	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY
1 Rawalpindi	0.2	1.1	0.2	-2.5	0.1	5.9	0.1	1.7	-0.1	-2.6	0.2	6.6
2 Islamabad	0.9	0.8	1.6	-1.2	0.0	3.3	0.9	1.2	1.6	-0.4	0.1	3.0
3 Lahore	0.7	1.4	0.8	-0.1	0.5	3.6	0.6	1.4	0.5	0.1	0.7	3.2
4 Gujranwala	0.3	1.6	0.5	-0.3	0.1	4.1	0.2	1.4	0.2	-0.3	0.1	3.4
5 Sialkot	1.3	0.9	2.3	-0.2	-0.1	2.5	1.0	0.7	1.8	-0.4	0.0	2.0
6 Faisalabad	1.1	0.7	1.9	-0.8	0.0	2.7	0.9	0.7	1.6	-0.3	0.1	1.9
7 Multan	0.4	1.4	0.6	0.3	0.1	2.7	0.3	1.5	0.5	0.9	0.1	2.2
8 Sargodha	0.2	2.2	0.2	-2.2	0.1	7.2	0.0	3.0	-0.1	-1.4	0.1	7.4
9 Bahawalpur	1.5	0.7	2.9	-1.5	0.1	3.1	1.1	0.7	2.2	-0.9	0.2	2.3
10 Karachi	1.5	2.6	2.3	0.1	0.5	6.1	1.2	2.8	2.0	0.6	0.4	5.4
11 Hyderabad	0.2	1.6	0.4	0.7	0.0	3.0	0.2	2.1	0.4	1.3	0.1	3.1
12 Sukkur	0.0	-0.5	-0.1	-3.5	0.0	3.4	-0.2	0.3	-0.4	-2.7	0.0	3.7
13 Larkana	0.4	-0.6	0.7	-2.2	0.1	1.3	0.4	0.1	0.6	-1.0	0.2	1.3
14 Peshawar	2.1	3.0	3.6	2.9	0.5	3.1	1.7	3.4	3.1	3.6	0.4	3.3
15 Bannu	-0.1	0.9	-0.1	-0.8	-0.2	2.9	-0.3	0.5	-0.4	-1.5	-0.3	2.6
16 Quetta	-1.6	-0.6	-2.9	-3.0	0.1	2.8	-1.4	-0.2	-2.8	-2.4	0.2	2.5
17 Khuzdar	-2.0	-1.4	-3.4	-3.1	-0.3	0.8	-1.8	-1.9	-3.1	-2.6	-0.3	-1.1
	Rs 12001-18000						Rs 18001-35000					
	General		Food		Non-Food		General		Food		Non-Food	
	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY
1 Rawalpindi	0.2	1.9	0.2	-2.1	0.1	5.9	0.4	2.3	0.6	-1.2	0.2	5.4
2 Islamabad	1.0	1.2	1.8	0.2	0.2	2.2	0.9	1.5	1.8	0.5	0.2	2.3
3 Lahore	0.6	1.4	0.5	0.5	0.7	2.5	0.5	1.4	0.3	1.0	0.7	1.9
4 Gujranwala	0.1	1.5	0.1	0.3	0.0	2.8	0.1	1.5	0.1	0.8	0.1	2.1
5 Sialkot	0.9	0.0	1.7	-1.1	0.2	1.3	0.8	0.3	1.5	-0.6	0.2	1.2
6 Faisalabad	0.8	0.9	1.5	0.0	0.1	1.8	0.6	0.8	1.1	0.4	0.2	1.1
7 Multan	0.2	1.6	0.2	1.2	0.1	2.0	0.1	1.8	0.0	1.8	0.2	1.7
8 Sargodha	-0.1	3.4	-0.2	-0.8	0.0	7.1	-0.1	3.6	-0.4	0.1	0.1	6.4
9 Bahawalpur	1.1	1.0	2.2	-0.1	0.2	2.0	0.9	1.1	1.9	0.5	0.2	1.5
10 Karachi	1.0	3.1	1.6	1.1	0.4	5.2	0.9	3.1	1.4	1.4	0.4	4.7
11 Hyderabad	0.2	2.2	0.4	2.1	0.0	2.4	0.2	2.3	0.4	2.7	0.1	1.9
12 Sukkur	-0.2	0.5	-0.4	-2.4	-0.1	3.6	-0.2	1.1	-0.4	-1.4	0.0	3.3
13 Larkana	0.4	0.5	0.6	-0.5	0.2	1.4	0.4	1.2	0.6	0.6	0.2	1.7
14 Peshawar	1.5	3.5	2.9	3.7	0.3	3.3	1.3	3.5	2.5	4.4	0.2	2.7
15 Bannu	-0.2	0.6	-0.1	-1.6	-0.2	2.7	-0.4	0.9	-0.6	-1.7	-0.2	3.2
16 Quetta	-1.4	-0.4	-2.9	-2.2	0.1	1.6	-1.3	0.0	-2.9	-1.5	0.1	1.4
17 Khuzdar	-1.5	-1.8	-2.6	-1.4	-0.3	-2.2	-1.3	-1.2	-2.4	-0.6	-0.3	-1.6
	Above Rs 35000						Combined					
	General		Food		Non-Food		General		Food		Non-Food	
	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY
1 Rawalpindi	0.4	4.2	0.7	-0.2	0.2	6.5	0.3	3.4	0.6	-0.9	0.1	6.6
2 Islamabad	0.5	3.6	1.6	1.7	0.0	4.5	0.6	3.3	1.6	1.4	-0.2	4.7
3 Lahore	0.5	1.8	0.2	1.3	0.7	2.1	0.5	1.6	0.3	0.9	0.7	2.2
4 Gujranwala	0.0	2.1	-0.1	1.4	0.1	2.4	0.1	1.7	0.1	0.6	0.1	2.5
5 Sialkot	0.7	0.5	1.4	-0.1	0.3	0.8	0.8	0.4	1.6	-0.5	0.3	1.1
6 Faisalabad	0.4	0.9	0.9	0.8	0.1	1.0	0.7	0.8	1.3	0.2	0.2	1.3
7 Multan	-0.1	1.8	-0.4	2.8	0.1	1.4	0.1	1.7	0.0	1.8	0.2	1.6
8 Sargodha	-0.2	4.2	-0.8	0.6	0.1	5.9	-0.1	3.5	-0.3	-0.5	0.1	6.1
9 Bahawalpur	0.7	1.5	1.6	1.1	0.2	1.7	1.0	1.1	2.1	-0.1	0.3	1.9
10 Karachi	0.5	4.4	0.8	1.9	0.3	5.7	0.7	3.8	1.2	1.5	0.3	5.6
11 Hyderabad	-0.1	2.2	-0.2	3.4	0.0	1.5	0.1	2.2	0.2	2.5	0.1	1.9
12 Sukkur	-0.2	1.8	-0.6	-0.8	-0.1	3.1	-0.2	0.9	-0.4	-1.9	0.0	2.9
13 Larkana	0.4	1.6	0.8	1.6	0.3	1.7	0.4	0.6	0.6	-0.3	0.3	1.2
14 Peshawar	0.6	2.8	1.9	4.7	0.0	1.9	1.2	3.1	2.6	4.1	0.2	2.5
15 Bannu	-0.3	0.2	-0.2	-1.3	-0.4	0.9	-0.3	0.7	-0.3	-1.4	-0.2	2.1
16 Quetta	-0.9	0.5	-2.2	-0.9	-0.2	1.2	-1.2	0.1	-2.7	-1.7	-0.1	1.4
17 Khuzdar	-0.8	0.1	-1.4	3.3	-0.5	-1.4	-1.6	-1.4	-2.8	-1.1	-0.7	-1.6

Table A6: City- wise CPI Inflation (YoY) August, 2015

City	High inflation cities			City	Low inflation cities		
	General	Food	Non-food		General	Food	Non-food
Mingora	4.0	2.6	5.0	Lahore	1.6	0.9	2.2
Karachi	3.8	1.5	5.6	Bahawalnagar	1.5	1.2	1.7
Sargodha	3.5	-0.5	6.1	Abbotabad	1.4	2.2	0.9
Rawalpindi	3.4	-0.9	6.6	Muzaffargarh	1.2	1.1	1.3
Mardan	3.3	1.8	4.2	Bahawalpur	1.1	-0.1	1.9
Islamabad	3.3	1.4	4.7	Jhelum	1.1	0.4	1.6
Nawabshah	3.2	0.1	5.3	Mir Pur Khas	1.0	0.6	1.3
Peshawar	3.1	4.1	2.5	Sahiwal	0.9	-3.3	3.7
Loralai & Cantt	3.0	3.9	2.4	Sukkur	0.9	-1.9	2.9
Jhang	2.4	3.5	1.8	Faisalabad	0.8	0.2	1.3
Hyderabad	2.2	2.5	1.9	Bannu	0.7	-1.4	2.1
D. I. Khan	2.2	3.4	1.3	Larkana	0.6	-0.3	1.2
Wazirabad	2.0	2.0	2.1	D.G. Khan	0.6	-1.2	1.8
Mithi	2.0	1.6	2.2	Mianwali	0.5	-3.8	3.5
Attock	1.8	-2.5	5.1	Sialkot	0.4	-0.5	1.1
Multan	1.7	1.8	1.6	Vehari	0.4	2.1	-0.8
Gujranwala	1.7	0.6	2.5	Quetta	0.1	-1.7	1.4
				Turbat	0.0	-1.2	0.8
				Rahim Yar Khan	0.0	-2.9	2.2
				Dera Mrd.Jamali	-0.6	-3.5	1.5
				Dadu	-1.1	-2.7	0.1
				Khuzdar	-1.4	-1.1	-1.6
				Gwadar	-1.5	-2.4	-0.8

Note: High inflation refers to equal or above average inflation, and low inflation refers to below average

Table A7: Income Group-wise Inflation (percent)						
	MoM			YoY		
	Aug-14	Jul-15	Aug-15	Aug-14	Jul-15	Aug-15
<u>Up to Rs. 8000</u>						
General	0.8	0.3	0.5	6.0	1.1	0.9
Food	1.2	0.1	0.8	5.3	-0.6	-1.1
Non-food	0.2	0.6	0.1	6.8	3.5	3.4
<u>Rs. 8001- 12000</u>						
General	0.6	0.3	0.3	6.0	1.3	1.1
Food	0.9	0.1	0.6	5.4	-0.2	-0.6
Non-food	0.2	0.6	0.1	6.6	3.1	3.0
<u>Rs. 12001- 18000</u>						
General	0.5	0.3	0.3	7.1	1.6	1.4
Food	0.8	0.1	0.5	5.5	0.2	-0.1
Non-food	0.1	0.5	0.2	8.7	2.9	3.0
<u>Rs. 18001- 35000</u>						
General	0.3	0.3	0.3	7.3	1.7	1.6
Food	0.6	0.1	0.3	5.6	0.6	0.4
Non-food	0.1	0.5	0.3	8.7	2.5	2.7
<u>Above Rs. 35000</u>						
General	0.2	0.4	0.1	7.2	2.1	2.0
Food	0.2	0.2	0.1	5.7	1.2	1.1
Non-food	0.2	0.5	0.2	8.0	2.6	2.5
<u>All income groups</u>						
General	0.3	0.4	0.2	7.0	1.8	1.7
Food	0.6	0.1	0.3	5.6	0.6	0.4
Non-food	0.2	0.5	0.2	8.1	2.7	2.7

Table A8: SPI Item-wise Price Movements

Sr.No.	Items	Unit	Prices Aug-15	Percentage change	
				YoY	MoM
1	Wheat	10Kg.	323.6	-7.9	-1.2
2	Wheat Flour Bag	10Kg.	373.5	-7.0	-1.0
3	Rice Basmati Broken	Kg.	68.9	-7.0	0.1
4	Rice Irri-6	Kg.	49.8	-8.6	-0.1
5	Bread Plain Med. Size (340-400 Gm.)	Each	40.8	0.4	0.0
6	Beef	Kg.	311.5	4.4	1.4
7	Mutton	Kg.	615.2	5.0	1.4
8	Chicken Live (Farm)	Kg.	152.9	-3.6	-18.5
9	Milk Fresh	Litr	77.4	2.6	0.0
10	Curd	Kg.	91.0	2.9	0.1
11	Milk Powdered Nido	500G	356.5	2.5	0.0
12	Egg Hen (Farm)	Doz.	98.4	-4.5	9.3
13	Mustard Oil	Kg.	179.2	-3.4	0.1
14	Cooking Oil (Tin)	2.5Ltr	464.0	-14.1	-0.2
15	Veg. Ghee (Tin)	2.5Kg.	456.7	-10.8	-0.2
16	Veg. Ghee Loose	Kg.	139.9	-11.9	-0.9
17	Bananas	Doz.	80.5	-9.8	-20.0
18	Masoor Pulse Washed	Kg.	142.5	10.8	0.6
19	Moong Pulse Washed	Kg.	161.1	6.0	-1.8
20	Mash Pulse Washed	Kg.	186.1	20.1	1.0
21	Gram Pulse Washed	Kg.	112.7	52.2	5.1
22	Potatoes	Kg.	28.2	-58.9	3.5
23	Onions	Kg.	43.1	4.6	1.7
24	Tomatoes	Kg.	61.8	29.3	31.7
25	Sugar	Kg.	65.4	13.0	-0.1
26	Gur	Kg.	93.2	13.4	1.6
27	Salt Powdered Loose (Lahori)	Kg.	10.4	4.9	0.2
28	Red Chilies Powder Loose	Kg.	273.5	8.8	1.3
29	Garlic	Kg.	152.8	12.4	4.4
30	Tea (Yellow Label)	200Gm.	171.0	37.7	9.3
31	Cooked Beef Plate	Each	84.4	2.9	0.4
32	Cooked Dal Plate	Each	49.6	4.4	0.8
33	Tea Prepared (Sada)	Cup	18.9	2.5	0.0
34	Cigarettes K-2 (20'S)	20'S	54.7	21.2	0.1
35	Long Cloth (Coarse Latha)	Mtr.	202.5	1.5	0.0
36	Shirting	Mtr.	161.2	3.2	0.1
37	Lawn	Mtr.	243.0	1.6	0.0
38	Georgette (Voil Printed)	Mtr.	123.1	1.2	0.0
39	Sandal Gents Bata	Pair	699.0	0.0	0.0
40	Chappal Spong. Bata (Gents)	Pair	179.0	0.0	0.0
41	Sandal Ladies Bata	Pair	499.0	0.0	0.0
42	Electric Charges 1-50	Unit	2.0	0.0	0.0
43	Gas Charges upto 3.3719	Mmbtu	124.2	0.0	0.0
44	Kerosene	Litr	86.5	-27.0	-5.0
45	Firewood	40Kg	579.7	4.6	-0.1
46	Energy Savor 14 Watts	Each	166.4	0.8	0.1
47	Washing Soap (200-250 Gm.)	Cake	24.4	0.5	0.0
48	Match Box	Each	1.9	17.6	1.0
49	Petrol	Litr	77.6	-29.1	-1.2
50	Diesel	Litr	85.9	-22.5	-2.3
51	L.P.G.(11 Kg Cylinder.)	Each	1009.2	-24.8	-5.2
52	Tele. Local Call	Call	3.9	0.0	0.0
53	Bath Soap Lifebuoy (Standard)	Cake	36.5	1.5	0.2
Maximum				52.2	31.7
Median				1.5	0.0
Minimum				-58.9	-20.0

Table A9: Distribution of Price Changes (YoY) - WPI Items: August 2015				
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	Edible Roots/Potatoes, Stimulant and Spice Crops, Other Oil Seeds, Fibre Crops, Rice, Wheat, Poultry, Eggs	Milk from Bovine Animals, Sorghum/Jowar, Vegetables, Maize	Unmanufactured Tobacco, Dry Fruits, Fresh Fruits, Hides and Fur Skins-Raw, Raw Animal Material/Wool, Fuel Wood in Logs, Sugar Crops, Cotton Seeds	Fish Live Fresh or Chilled, Pulses, Millet/Bajra
Ores & Minerals, Electricity Gas & Water	Natural Gas Liquefied, Coal not Agglomerated	Electrical Energy, Salt & Pure Sodium Chloride		
Food Products, Beverages and Tobacco, Textiles, Apparel and Leather Products	Cotton Yarn, Vegetable Ghee, Other Leather N.E.C, Nylon Yarn, Vegetable Oil Refined, Oil Cakes, Wheat Flour, Blended Yarn, Leather Without Hairs, Spices, Other Food Products, Footwear, Chocolate, Woolen Carpets, Ice Cream	Silk and Rayon Fabrics, Dried Fruits & Nuts, Meat of Animals, Dairy Products N.E.C, Fruit Juices, Vegetables & Fruit Juices, Milk and Cream in Solid Form, Cotton Fabrics, Beverages, Mineral Water, Synthetic Carpets	Towels, Blankets, Ready Made Garments, Processed Liquid Milk, Hosiery Products, Bed Sheets, Other Fabrics	Other Cereal Flour, Coffee and Tea, Tobacco Products, Sugar Confectionary, Quilts, Woven Fabrics, Sugar Refined
Other Transportable Goods except Metal Products, Machinery and Equipments	Furnace Oil, Kerosene Oil, Diesel Oil, Motor Sprit, Insecticides, Hard Board, Chemicals, Printing Paper, Mobil Oil, Cement, Coke	Bed Foams, Bricks Blocks and Tiles, Soaps & Detergent, Dying Materials, Auto Tyres, Medicines, Fertilizers	Paints & Varnishes	Matches, Pesticides, Other Glass Articles, Plastic Products, Timber, Ceramics and Sanitary, Glass Sheets
Metal Product Machinery & Equipment	Steel Bars & Sheets, Cultivators, Motor Cycles, Pig Iron, Engines and Motors, Vacuum Pumps, Concrete Mixer, Radio and Television, Lathe Machines, Chuff Cutter, Tractors	Air Conditioners, Steel Products, Bicycles, Lighting Equipments, Refrige, Wash & Sew Mach, Iron, Fan, Motor Vehicles	Pipe Fittings, Electrical Wires	

Table A10: Consumer Price Index Numbers by Major Groups and Composite Commodities

Items and specification	Weights	Index		
		Aug-14	Jul-15	Aug-15
General	100.00	198.70	201.62	202.11
Food & Non-Alcoholic Beverages.	34.83	221.77	219.76	220.51
1 Wheat	0.35	208.97	195.34	194.04
2 Wheat Flour	4.16	222.00	209.15	208.24
3 Wheat Product	0.10	218.37	212.14	212.75
4 Besan	0.15	169.93	226.93	236.90
5 Rice	1.58	195.30	174.19	174.03
6 Cereals	0.16	237.79	242.61	243.87
7 Bakery & Confectionary	1.16	205.44	208.80	209.48
8 Nimco	0.46	234.50	240.02	240.88
9 Meat	2.43	241.09	250.33	252.42
10 Chicken	1.36	202.16	227.83	189.75
11 Fish	0.30	216.83	211.33	211.30
12 Milk Fresh	6.68	244.41	254.76	255.57
13 Milk Product	0.63	240.29	247.17	247.22
14 Milk Powder	0.11	224.27	226.78	227.17
15 Egg	0.46	211.80	174.43	196.17
16 Mustard Oil	0.10	159.06	152.44	153.77
17 Cooking Oil	1.75	161.90	142.10	141.58
18 Vegetable Ghee	2.07	157.85	140.77	140.34
19 Dry Fruits	0.25	236.61	252.84	250.52
20 Fresh Fruits	1.86	225.59	263.31	240.08
21 Pulse Masoor	0.27	180.35	195.25	195.95
22 Pulse Moong	0.23	287.40	306.14	298.00
23 Pulse Mash (Washed)	0.21	218.09	253.39	256.02
24 Pulse Gram	0.24	167.40	230.62	245.70
25 Gram Whole	0.16	179.10	199.27	205.35
26 Beans	0.03	241.77	232.93	234.52
27 Potatoes	0.47	484.66	176.23	182.67
28 Onion	0.53	251.11	255.12	247.23
29 Tomatoes	0.44	169.12	148.28	197.35
30 Fresh Vegetable	1.68	252.93	215.04	253.47
31 Sugar	1.04	205.35	232.55	233.44
32 Gur	0.02	259.98	279.18	285.83
33 Honey	0.04	292.72	304.35	304.35
34 Sweet Meet	0.25	229.38	235.91	237.20
35 Beverages	1.20	209.18	215.67	215.71
36 Jam, Tomato Ketchup & Pickle	0.25	197.56	209.37	210.53
37 Condiments	0.27	249.01	258.03	258.10
38 Spices	0.54	229.07	237.36	238.09
39 Tea	0.84	206.89	235.06	252.00
Alcoholic Beverages, Tobacco	1.41	266.59	309.83	309.90
40 Cigarette	1.39	267.63	311.47	311.47
41 Betel Leaves & Nuts	0.02	203.31	210.25	214.46
Clothing & Footwear	7.57	210.19	219.65	220.27
42 Cotton Cloth	1.73	206.81	213.49	214.33
43 Woolen Cloth	0.88	228.48	234.73	236.10
44 Ready Made Garment	0.97	211.17	225.49	225.84
45 Woolen Readymade Garments	0.40	218.34	240.86	240.86
46 Hosiery	0.51	221.44	232.85	233.85
47 Dopatta	0.44	226.08	232.89	233.88
48 Cleaning & Laundering	0.21	230.67	238.32	239.56

Table A10: Consumer Price Index Numbers by Major Groups and Composite Commodities				
Items and specification	Weights	Index		
		Aug-14	Jul-15	Aug-15
49 Tailoring	0.88	255.86	278.39	278.68
50 Footwear	1.55	163.89	164.77	164.95
Housing,Water,Elect,Gas & Other Fuel	29.41	171.65	179.29	179.83
51 House Rent	21.81	159.82	168.87	168.87
52 Construction Input Item	0.56	234.79	239.75	240.99
53 Construction Wage Rate	0.33	201.60	215.28	216.01
54 Water Supply	0.50	149.92	149.92	149.92
55 Electricity	4.40	227.44	231.52	234.92
56 Gas	1.58	143.81	143.81	143.81
57 Kerosene Oil	0.01	279.05	223.65	216.11
58 Fire Wood Whole	0.23	265.16	275.52	275.90
Furnished H.Hold Equip.& Maint. Etc	4.21	205.48	213.53	214.22
59 Furniture	0.33	196.29	205.94	206.08
60 Household Textile	0.65	200.71	209.69	211.55
61 Household Equipment	0.59	171.16	175.41	175.47
62 Utensils	0.32	206.97	216.41	216.86
63 Plastic Products	0.25	196.98	203.33	203.54
64 Washing Soap & Detergent	0.79	221.65	223.42	224.99
65 Sewing Needle & Dry Cell	0.15	182.20	198.97	200.00
66 Household Servant	1.04	222.19	234.86	234.86
67 Marriage Hall Charges	0.08	225.21	232.28	232.28
Health	2.19	173.42	178.91	179.01
68 Drug Medicine	1.27	145.60	148.93	148.93
69 Medical Equipment	0.01	220.56	226.26	226.26
70 Doctor (MBBS) Clinic Fee	0.59	234.15	242.85	242.85
71 Medical Test	0.32	170.34	178.44	179.13
Transport	7.20	198.70	178.62	178.02
72 Motor Vehicle	0.66	163.48	163.28	163.39
73 Motor Vehicle Accessories	0.24	229.13	226.83	226.83
74 Motor Fuel	3.03	190.47	154.54	153.01
75 Mechanical Service	0.46	206.40	216.37	216.92
76 Motor Vehicle Tax	0.11	210.18	210.18	210.18
77 Transport Services	2.70	212.03	197.35	197.35
Communication	3.22	129.83	130.35	130.36
78 Postal Services	0.07	216.02	229.42	229.93
79 Communication & Apparatus	3.15	128.02	128.27	128.27
Recreation & Culture	2.02	189.02	193.01	193.03
80 Recreation & Culture	0.86	127.46	128.25	128.25
81 Text Books	0.57	280.60	290.62	290.62
82 News Papers	0.19	175.42	175.42	175.42
83 Stationery	0.40	197.98	202.14	202.25
Education	3.94	191.45	209.17	209.23
84 Education	3.94	191.45	209.17	209.23
Restaurants And Hotels	1.23	239.85	249.70	250.26
85 Ready Made Food	1.23	239.85	249.70	250.26
Miscellaneous Goods And Services	2.76	218.63	223.13	223.88
86 Personal Care	1.49	202.70	207.30	208.36
87 Cosmetics	0.39	183.29	191.12	191.82
88 Blades	0.03	184.82	187.44	188.25
89 Personal Equipments	0.84	264.24	267.12	267.34

Table A11: Wholesale Price Index Numbers by Major Groups and Composite Commodities

Items and Specifications	Index		
	Aug-14	Jul-15	Aug-15
General	214.73	209.58	208.56
Agriculture Forestry & Fishery	224.73	224.93	225.90
1 Wheat	214.37	199.02	198.78
2 Maize	193.63	194.73	197.89
3 Rice	180.50	161.31	157.78
4 Sorghum/Jowar	328.11	336.99	340.07
5 Millet/Bajra	174.19	203.58	207.85
6 Vegetables	304.25	246.36	315.25
7 Fresh Fruits	256.65	313.83	279.94
8 Dry Fruits	217.97	241.48	238.67
9 Cotton Seeds	216.43	236.29	230.46
10 Other Oil Seeds	189.39	160.55	162.61
11 Edible Roots/ Potatoes	550.88	152.85	150.28
12 Stimulant And Spice Crops	429.22	348.00	325.37
13 Pulses	194.38	235.73	235.92
14 Sugar Crops	267.92	286.29	286.29
15 Fibre Crops	175.37	159.33	152.62
16 Unmanufactured Tobacco	206.81	221.18	226.94
17 Poultry	212.06	237.79	199.19
18 Milk From Bovine Animals	243.95	252.90	252.90
19 Eggs	218.87	184.87	206.09
20 Raw Animal Material/Wool	161.50	174.22	173.66
21 Hides And Fur Skins, Raw	145.14	155.92	156.45
22 Fuel Wood In Logs	243.47	259.53	261.39
23 Fishes Live Fresh Or Chilled	243.89	308.06	339.60
Ores/Minerals, Gas & Elect.	242.91	245.36	245.17
24 Coal Not Agglomerated	223.53	223.53	223.53
25 Natural Gas Liquefied	202.79	200.06	199.75
26 Salt & Pure Sodium Chloride	248.50	252.31	252.31
27 Electrical Energy	287.44	295.61	295.50
Food, Beverages, Tobacco, Textiles	207.15	210.44	210.52
28 Meat Of Animals	252.65	262.35	263.70
29 Vegetables & Fruit Juices	194.12	200.07	200.95
30 Dried Fruits & Nuts	219.98	228.54	229.85
31 Fruit Juices	171.34	177.53	177.53
32 Vegetable Oil Refined	163.56	153.56	152.52
33 Vegetable Ghee	139.94	122.09	120.70
34 Oil Cakes	212.95	194.96	199.15
35 Processed Liquid Milk	231.82	248.71	248.71
36 Milk And Cream In Solid Form	214.15	220.46	219.44
37 Ice Cream	219.91	219.91	219.91
38 Dairy Products N.E.C	235.94	243.80	244.55
39 Wheat Flour	201.98	190.27	191.08
40 Other Cereal Flour	136.37	210.16	214.97
41 Sugar Refined	220.01	249.40	249.46
42 Chocolate	99.19	99.19	99.19
43 Sugar Confectionary	102.28	118.04	118.04
44 Coffee And Tea	181.34	210.96	233.14
45 Spices	191.50	189.84	188.81
46 Other Food Products	294.38	292.02	292.02
47 Mineral Water	185.63	188.22	188.22
48 Beverages	169.18	171.95	171.95
49 Tobacco Products	290.52	356.45	356.45
50 Cotton Yarn	195.72	171.27	167.45
51 Nylon Yarn	163.67	150.22	150.22
52 Blended Yarn	193.92	188.86	185.58
53 Woven Fabrics	226.82	258.39	258.39
54 Cotton Fabrics	196.81	201.65	201.65
55 Other Fabrics	203.01	214.27	214.27

Inflation Monitor, August 2015

Table A11: Wholesale Price Index Numbers by Major Groups and Composite Commodities				
		Index		
Items and Specifications		Aug-14	Jul-15	Aug-15
56	Silk And Rayon Fabrics	175.35	183.23	183.23
57	Towels	244.18	267.20	267.20
58	Blankets	219.66	235.86	235.86
59	Bed Sheets	242.12	256.29	256.29
60	Quilts	172.42	196.84	196.84
61	Woolen Carpets	132.14	132.14	132.14
62	Synthetic Carpets	125.42	126.27	126.27
63	Hosiery Products	206.13	220.66	220.66
64	Ready Made Garments	180.12	193.27	193.27
65	Leather With Out Hairs	216.45	212.68	212.68
66	Other Leather N.E.C	230.78	206.27	206.27
67	Footwear's	134.22	134.22	134.22
Other Transportable Goods		215.17	185.86	180.27
68	Timber	184.69	204.34	204.34
69	Printing Paper	169.34	164.56	164.56
70	Hard Board	229.17	197.92	197.92
71	Coke	163.45	163.45	163.45
72	Motor Sprit	182.40	131.39	129.65
73	Diesel Oil	260.69	187.52	177.90
74	Kerosene Oil	288.01	178.93	165.55
75	Furnace Oil	169.47	107.57	90.81
76	Mobil Oil	201.17	201.05	199.10
77	Chemicals	194.21	192.95	187.61
78	Dying Materials	143.77	146.55	146.55
79	Fertilizers	270.28	272.80	271.71
80	Pesticides	270.02	306.30	306.30
81	Insecticides	181.05	140.84	138.59
82	Paints & Varnishes	276.16	291.69	295.36
83	Medicines	144.21	145.20	145.20
84	Soaps & Detergent	175.81	180.02	180.05
85	Auto Tyres	188.21	191.78	191.78
86	Plastic Products	205.01	228.67	228.34
87	Glass Sheets	209.86	231.30	231.30
88	Other Glass Articles	218.27	243.63	243.63
89	Ceramics And Sanitary	200.91	221.02	221.62
90	Bricks Blocks And Tiles	202.38	209.47	209.99
91	Cement	207.44	207.29	206.97
92	Bed Foams	150.83	156.67	156.67
93	Matches	143.20	162.62	162.62
Metal Product Machinery & Equip		172.17	172.56	172.29
94	Pig Iron	128.97	128.97	128.97
95	Steel Bars & Sheets	149.75	138.82	136.92
96	Pipe Fittings	175.34	193.53	192.08
97	Steel Products	170.24	173.54	173.54
98	Engines And Motors	109.07	109.07	109.07
99	Vacuum Pumps	115.39	115.39	115.39
100	Air Conditioners	195.53	199.53	199.53
101	Cultivators	226.90	219.76	219.76
102	Chuff Cutter	149.20	149.20	149.20
103	Tractors	214.54	214.54	214.54
104	Lathe Machines	208.81	208.81	208.81
105	Concrete Mixer	138.83	138.83	138.83
106	Refrige,Wash& Sew Mach, Iron,Fan	195.93	198.62	198.62
107	Electrical Wires	179.18	187.86	192.45
108	Lighting Equipments	164.95	167.30	167.30
109	Radio And Television	126.49	126.49	126.49
110	Motor Vehicles	182.59	183.03	183.03
111	Motor Cycles	126.92	125.89	125.89
112	Bicycles	182.84	185.63	185.63

Table A12: Price Indices - Base 2007-08 = 100

Period		CPI			WPI			SPI *
		Overall	Food	Non-food	Overall	Food	Non-Food	
2008-09		117.03	123.12	113.38	118.93	119.68	118.45	123.26
2009-10		128.85	139.05	122.73	135.40	136.85	134.48	139.84
2010-11		146.45	164.10	135.87	164.17	159.26	167.28	164.02
2011-12		162.57	182.20	150.80	181.28	181.32	181.26	178.67
2012-13		174.53	195.18	162.16	194.61	197.21	192.95	189.64
2013-14		189.58	212.74	175.69	210.48	213.04	208.85	208.66
2014-15		198.16	220.20	184.95	209.85	226.22	199.47	212.61
2013	Feb	175.11	194.05	163.76	196.06	197.22	195.32	190.79
	Mar	175.82	195.06	164.29	196.57	196.02	196.92	192.01
	Apr	177.74	197.74	165.75	198.09	199.00	197.51	192.02
	May	178.65	200.00	165.85	197.23	201.14	194.75	191.96
	Jun	179.94	202.11	166.65	199.21	204.60	195.79	196.75
	Jul	183.58	208.19	168.83	202.49	209.34	198.15	200.80
	Aug	185.71	212.27	169.79	207.85	211.45	205.57	203.29
	Sep	185.18	209.09	170.85	209.33	211.29	208.09	203.05
	Oct	188.82	212.61	174.56	211.70	213.26	210.71	207.69
	Nov	191.21	218.16	175.06	212.22	215.77	209.97	214.76
	Dec	188.68	210.89	175.37	210.11	210.28	210.00	210.78
2014	Jan	189.60	210.81	176.89	211.23	209.87	212.10	208.99
	Feb	189.00	208.74	177.17	210.94	208.67	212.38	208.54
	Mar	190.82	213.11	177.46	211.66	212.89	210.88	212.08
	Apr	194.06	217.33	180.11	211.88	216.70	208.82	211.78
	May	193.55	214.75	180.84	211.71	215.95	209.02	209.80
	Jun	194.74	216.98	181.41	214.60	221.06	210.50	212.40
	Jul	198.05	222.80	183.21	215.76	225.52	209.57	216.14
	Aug	198.70	224.05	183.50	214.73	227.26	206.78	217.08
	Sep	199.40	224.12	184.58	215.06	228.41	206.59	217.06
	Oct	199.81	223.74	185.47	214.39	229.02	205.11	216.67
	Nov	198.79	222.74	184.44	212.26	227.29	202.73	214.45
	Dec	196.79	218.08	184.03	208.25	223.48	198.59	211.76
2015	Jan	196.95	217.10	184.87	206.11	223.48	195.09	209.89
	Feb	195.13	213.15	184.33	203.86	222.26	192.19	206.98
	Mar	195.57	214.25	184.37	203.89	222.11	192.33	207.05
	Apr	198.16	217.26	186.71	205.65	225.38	193.13	208.42
	May	199.66	221.22	186.74	207.92	228.09	195.12	211.48
	Jun	200.89	223.84	187.13	210.37	232.39	196.40	214.29
	Jul	201.62	224.14	188.12	209.58	233.68	194.29	215.13
	Aug	202.11	224.86	188.48	208.56	236.00	191.15	214.33

*: all groups combined

Table A13: International Commodity Prices/ Indices				
	May-15	Jun-15	Jul-15	Aug-15
Energy				
Crude Oil (US\$ per barrel) *	62.5	61.3	54.4	45.7
IMF Energy Index (2005 = 100)	116.3	114.0	102.4	88.3
WB Energy Index (2010 = 100) @	77.8	76.3	68.8	59.4
Food				
Rice (\$/MT)	382.4	370.5	387.7	375.7
Wheat (\$/MT)	215.1	209.9	197.4	179.8
Sugar (US cent/ pound)	12.7	12.1	11.9	10.7
Palm Oil (\$/MT)	601.4	606.4	575.7	484.7
Soybean Oil (\$/MT)	716.5	738.0	695.8	628.7
Non-Food Non-Energy				
Cotton Outlook 'A' Index #	72.9	72.4	72.3	71.8
IMF Metal Price Index (2005 = 100)	139.6	133.2	123.2	119.2
Copper (\$/MT)	6,294.8	5,833.0	5,456.8	5,127.3
Aluminum (\$/MT)	1,804.0	1,687.7	1,639.5	1,548.1
Iron Ore (\$ cents/dry MT)	60.2	62.3	51.5	55.4
Tin (\$/MT)	15,803.6	15,064.9	15,071.5	15,163.8
Nickle (\$/MT)	13,511.3	12,825.2	11,413.1	10,386.0
Zinc (\$/MT)	2,281.8	2,082.1	2,000.7	1,807.6
Lead (\$/MT)	1,991.8	1,829.5	1,763.0	1,703.6
Uranium (\$/MT)	35.6	36.1	36.0	36.1
DAP (\$/MT)	470.0	473.0	469.0	464.0
Urea (\$/MT)	280.0	292.0	273.0	273.0
Source: IMF and World Bank				
\$/MT = US\$ per metric ton.				
* 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 May 1981 strict middling 1-1/16 inch staple. Prior to 1968, Mexican 1-1/16.2/				
DAP: Diammonium Phosphate				
@ World Bank commodity index for low and middle income countries				

Table 14. CPI Data Series Original and Seasonally Adjusted

Original Series					
Period	FY12	FY13	FY14	FY15	FY16
Jul	154.72	169.57	183.58	198.05	201.62
Aug	156.88	171.09	185.71	198.70	202.11
Sep	158.50	172.44	185.18	199.40	
Oct	160.79	173.10	188.82	199.81	
Nov	161.25	172.42	191.21	198.79	
Dec	160.12	172.82	188.68	196.79	
Jan	162.58	175.70	189.60	196.95	
Feb	163.07	175.11	189.00	195.13	
Mar	164.98	175.82	190.82	195.57	
Apr	168.00	177.74	194.06	198.16	
May	169.93	178.65	193.55	199.66	
Jun	169.99	179.94	194.74	200.89	
Seasonally Adjusted Series					
Jul	154.20	168.91	182.77	197.10	200.62
Aug	155.72	169.78	184.25	197.18	200.61
Sep	157.28	171.11	183.74	197.82	
Oct	159.15	171.33	186.88	197.74	
Nov	160.26	171.33	189.94	197.52	
Dec	160.98	173.77	189.71	197.83	
Jan	163.01	176.17	190.13	197.49	
Feb	164.80	177.03	191.11	197.33	
Mar	166.35	177.35	192.54	197.36	
Apr	168.14	177.87	194.23	198.35	
May	170.52	179.30	194.25	200.35	
Jun	170.78	180.82	195.68	201.84	

Table 15. CPI Food Data Series Original and Seasonally Adjusted					
Original Series					
Period	FY12	FY13	FY14	FY15	FY16
Jul	174.80	190.72	208.19	222.80	224.14
Aug	177.32	192.47	212.27	224.05	224.86
Sep	180.16	193.80	209.09	224.12	
Oct	183.07	193.66	212.61	223.74	
Nov	183.26	193.03	218.16	222.74	
Dec	179.21	192.97	210.89	218.08	
Jan	181.90	196.58	210.81	217.10	
Feb	180.69	194.05	208.74	213.15	
Mar	183.46	195.06	213.11	214.25	
Apr	187.43	197.74	217.33	217.26	
May	187.75	200.00	214.75	221.22	
Jun	187.35	202.11	216.98	223.84	
Seasonally Adjusted Series					
Jul	173.76	189.35	206.47	220.78	222.01
Aug	174.58	189.38	208.77	220.41	221.22
Sep	177.11	190.48	205.47	220.17	
Oct	179.67	190.13	208.84	219.77	
Nov	180.64	190.15	214.81	219.39	
Dec	180.65	194.55	212.56	219.70	
Jan	183.03	197.84	212.23	218.59	
Feb	184.70	198.46	213.58	218.17	
Mar	186.22	198.13	216.57	217.84	
Apr	188.38	198.73	218.50	218.53	
May	189.24	201.66	216.52	222.96	
Jun	189.29	204.23	219.21	226.06	

Table 16: CPI Monthly & Average Seasonal Factors

Period	FY12	FY13	FY14	FY15	FY16	Average
Jul	100.34	100.39	100.44	100.48	100.50	100.43
Aug	100.74	100.77	100.79	100.77	100.75	100.77
Sep	100.78	100.78	100.79	100.80		100.79
Oct	101.03	101.03	101.04	101.05		101.04
Nov	100.62	100.64	100.67	100.64		100.64
Dec	99.47	99.45	99.46	99.48		99.46
Jan	99.74	99.73	99.72	99.72		99.73
Feb	98.95	98.92	98.90	98.89		98.91
Mar	99.18	99.14	99.11	99.09		99.13
Apr	99.92	99.93	99.91	99.90		99.92
May	99.65	99.64	99.64	99.65		99.65
Jun	99.54	99.51	99.52	99.53		99.52

Table 17: CPI Food Monthly & Average Seasonal Factors

Period	FY12	FY13	FY14	FY15	FY16	Average
Jul	100.60	100.72	100.83	100.91	100.96	100.81
Aug	101.57	101.63	101.68	101.65	101.65	101.64
Sep	101.73	101.74	101.76	101.79		101.76
Oct	101.89	101.85	101.81	101.81		101.84
Nov	101.45	101.52	101.56	101.53		101.51
Dec	99.21	99.19	99.21	99.26		99.22
Jan	99.39	99.36	99.33	99.32		99.35
Feb	97.83	97.78	97.74	97.70		97.76
Mar	98.52	98.45	98.40	98.35		98.43
Apr	99.50	99.50	99.47	99.42		99.47
May	99.21	99.18	99.18	99.22		99.20
Jun	98.98	98.96	98.98	99.02		98.98

Table 18: CPI Month-on-Month % Change Original & Seasonally Adjusted					
Original Series					
Period	FY12	FY13	FY14	FY15	FY16
Jul	1.27	-0.25	2.02	1.70	0.36
Aug	1.40	0.90	1.16	0.33	0.24
Sep	1.03	0.79	-0.29	0.35	
Oct	1.44	0.38	1.97	0.21	
Nov	0.29	-0.39	1.27	-0.51	
Dec	-0.70	0.23	-1.32	-1.01	
Jan	1.54	1.67	0.49	0.08	
Feb	0.30	-0.34	-0.32	-0.92	
Mar	1.17	0.41	0.96	0.23	
Apr	1.83	1.09	1.70	1.32	
May	1.15	0.51	-0.26	0.76	
Jun	0.04	0.72	0.61	0.62	
Seasonally Adjusted Series					
Jul	0.47	-1.10	1.08	0.73	-0.60
Aug	0.99	0.51	0.81	0.04	-0.01
Sep	1.00	0.79	-0.28	0.32	
Oct	1.19	0.13	1.71	-0.04	
Nov	0.70	0.00	1.64	-0.11	
Dec	0.44	1.43	-0.12	0.15	
Jan	1.26	1.38	0.22	-0.17	
Feb	1.10	0.49	0.52	-0.08	
Mar	0.94	0.18	0.75	0.02	
Apr	1.08	0.30	0.88	0.50	
May	1.42	0.81	0.01	1.01	
Jun	0.16	0.84	0.74	0.74	

Table 19: CPI Food Month-on-Month % Change Original & Seasonally Adjusted Series					
Original Series					
Period	FY12	FY13	FY14	FY15	FY16
Jul	2.90	1.80	3.01	2.68	0.13
Aug	1.44	0.92	1.96	0.56	0.32
Sep	1.60	0.69	-1.50	0.03	
Oct	1.62	-0.07	1.68	-0.17	
Nov	0.10	-0.33	2.61	-0.45	
Dec	-2.21	-0.03	-3.33	-2.09	
Jan	1.50	1.87	-0.04	-0.45	
Feb	-0.66	-1.29	-0.98	-1.82	
Mar	1.53	0.52	2.10	0.52	
Apr	2.16	1.37	1.98	1.41	
May	0.17	1.15	-1.19	1.82	
Jun	-0.21	1.05	1.04	1.18	
Seasonally Adjusted Series					
Jul	1.25	0.03	1.10	0.72	-1.79
Aug	0.47	0.01	1.11	-0.17	-0.36
Sep	1.45	0.58	-1.58	-0.11	
Oct	1.45	-0.18	1.64	-0.18	
Nov	0.54	0.01	2.86	-0.17	
Dec	0.01	2.31	-1.05	0.14	
Jan	1.32	1.69	-0.15	-0.51	
Feb	0.91	0.31	0.63	-0.19	
Mar	0.83	-0.17	1.40	-0.15	
Apr	1.16	0.30	0.89	0.32	
May	0.46	1.48	-0.90	2.03	
Jun	0.03	1.27	1.24	1.39	



Figure A2: Frequency Distribution of Price Changes of CPI Items, August 2015

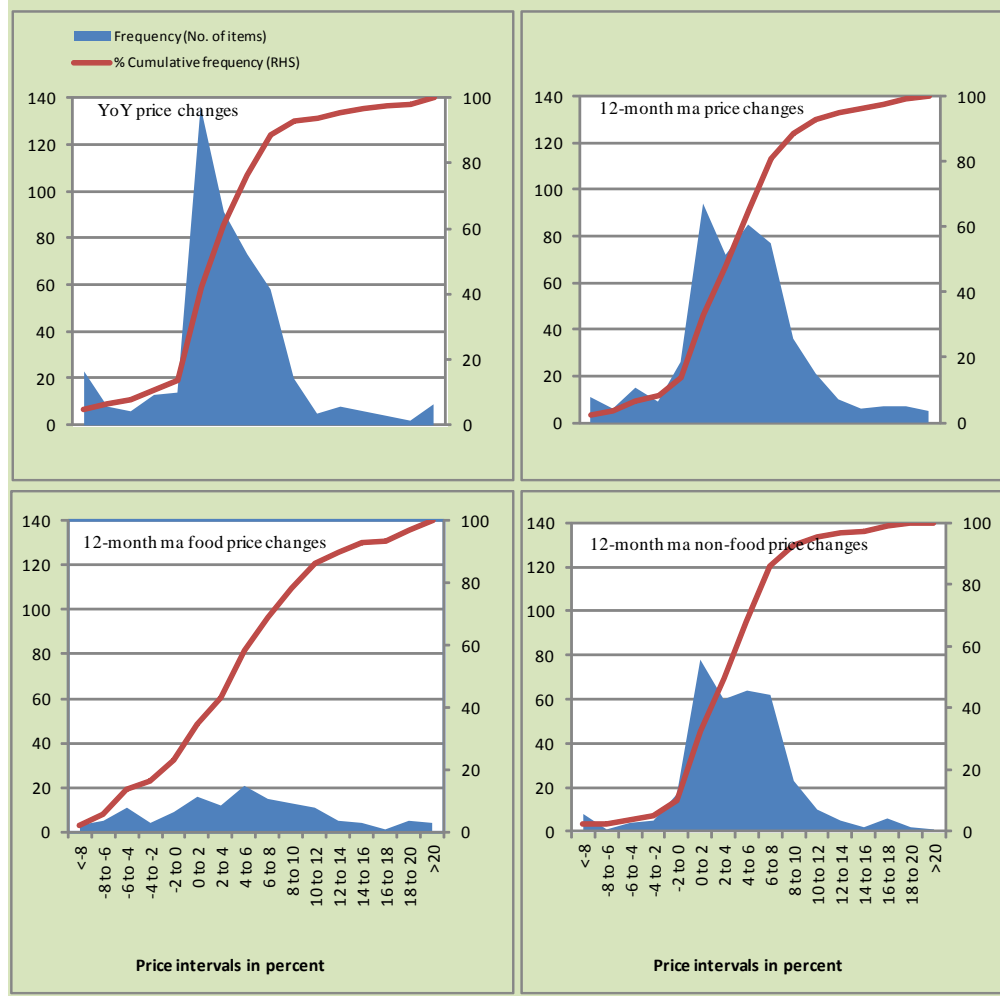


Figure A3: Frequency Distribution of Price Changes of WPI Commodities, August 2015

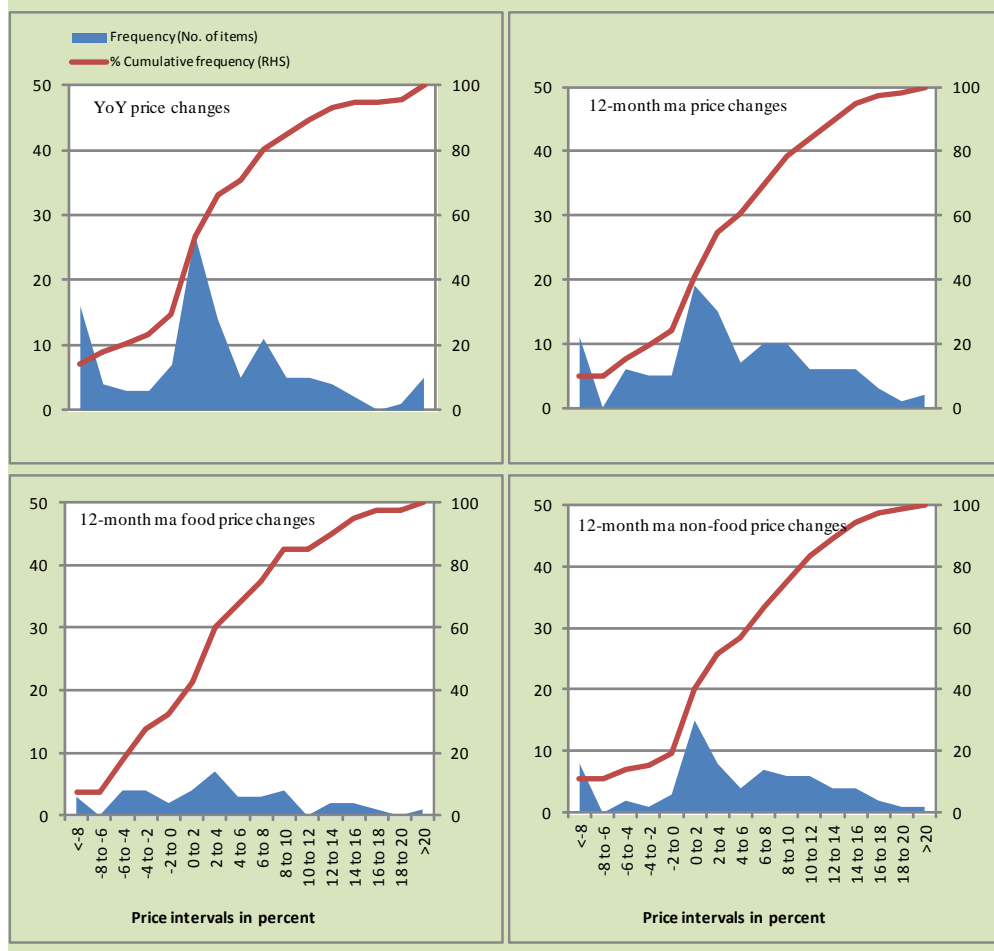
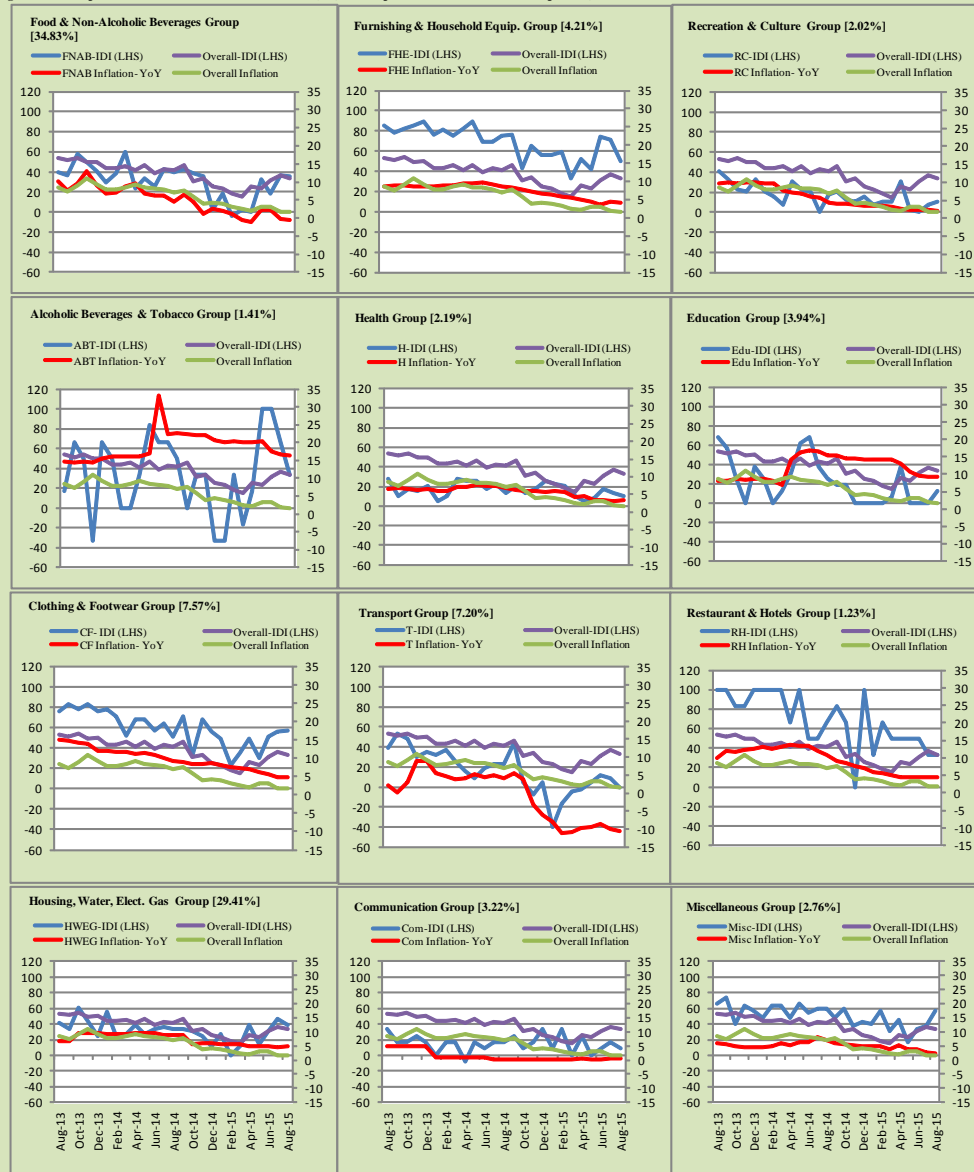


Figure A4: Group-wise/Overall Inflation Diffusion Index (IDI) and respective/overall YoY Inflation (percent)



Numbers in square brackets show the weights of respective groups in the CPI baskets.

Annexure B

Technical Notes

1. All the three measures of inflation, viz. CPI, 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 2007-08.
3. CPI basket contains 487 consumers' goods; WPI basket contains 463 items; SPI contains 53 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:

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.

- c) Relatively Stable Component of CPI (RSC-CPI) developed by State Bank of Pakistan is a hybrid method based on permanent exclusion criteria. Volatile price items, to be excluded in the newly proposed

measure RSC-CPI, are identified by analyzing the list and frequency of commodities that have been trimmed frequently in the past while computing monthly weighted trimmed mean measure. Commodities that were trimmed out 13 and above times since July 2008 to February 2013 are selected for permanently excluding from the CPI basket. This newly developed component includes a mix of both food and non-food commodities that show persistent price behavior. Fifty Commodities included comprise relatively stable component (RSC-CPI) with a weight of 67.69. The detailed methodology of RSC-CPI and group wise items along their weights can be viewed at the following link;

<http://www.sbp.org.pk/publications/wpapers/2013/wp66.pdf>

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

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

Methodology for Estimating Inflation Diffusion Index for Pakistan

We constructed an index to measure the spread of inflation in the 487 commodities of the CPI basket. It is based on month-on-month (MoM) change in the prices of these commodities and can be obtained by estimating what is known as an ‘inflation diffusion index’ (IDI) as below:

$$\frac{\text{Number of Commodities with } \uparrow \text{ in MoM change} - \text{Number of Commodities with } \downarrow \text{ in MoM change}}{\text{Number of Commodities for which prices are reported}}$$

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 commodities for which prices have altered or remained constant¹.

Based upon commodity level price data from July 2001 to February 2011 we computed inflation diffusion indices overall (general) CPI basket and for all groups in CPI basket (except House Rent Index being single item). A simple analysis² suggests that IDI is a leading indicator for Pakistan’s YoY inflation.

¹ We do not observe the prices of certain commodities (like the seasonal items) during certain periods of time. To calculate the inflation diffusion index we consider the commodities 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.