

Inflation Monitor

October 2014



State Bank of Pakistan

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Review

Inflation in Brief

1. Headline CPI inflation (2007-08=100) is recorded at 5.8 percent on year-on-year basis in October 2014 as compared to 7.7 percent in the previous month and 9.1 percent in the corresponding month of last year.
2. CPI inflation on month-on-month basis is recorded at 0.2 percent in October 2014 as compared to 0.4 percent in the previous month and 2.0 percent during the corresponding month of last year. Seasonally adjusted month-on-month CPI inflation is recorded at 0.2 percent in October 2014 compared to 0.4 percent in the previous month.
3. Core inflation (trimmed) on year-on-year basis decreased to 6.0 percent in October 2014 as compared to 7.1 percent in the previous month and 9.0 percent during the corresponding month of last year.
4. On month-on-month basis, the Core inflation (trimmed) increased to 0.4 percent in October 2014 as compared to 0.2 percent in the previous month and 0.8 percent during the corresponding month of last year.
5. Non-food, non-energy inflation measured by CPI Core (NFNE) on year-on-year basis decreased to 7.8 percent in October 2014 as compared to 8.0 percent in the previous month. It was 8.4 percent in the corresponding month of last year.
6. Core NFNE inflation on month-on-month basis decreased to 0.6 percent in October 2014 as compared to 0.7 percent in the previous month. A 0.9 percent increase in Core NFNE index was observed in October 2013.
7. WPI inflation on year-on-year basis decreased to 1.3 percent in October 2014 when compared to 2.7 percent a month earlier. During October 2013, WPI inflation was recorded at 9.8%.

8. WPI inflation on month-on-month basis recorded at -0.3 percent in October 2014 as compared to 0.2 percent in the previous month and 1.1 percent during the corresponding month of last year.
9. SPI inflation on year-on-year basis decreased to 4.3 percent in October 2014 as compared to 6.9 percent in the previous month. It was 10.9 percent in the corresponding month of last year.
10. SPI inflation on month-on-month basis recorded at -0.2 percent in October 2014 as compared to negligible decrease in the previous month and 2.3 percent in the 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 October 2014 are described below:

- Core inflation based on new measure RSC on year-on-year basis is recorded at 7.9 percent in October 2014 compared to 8.2 percent in the previous month and 8.4 percent in the corresponding month of last year.
- Core RSC inflation on month-on-month basis remained at the level of 0.6 percent in October 2014 as in the previous month and 0.8 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
Oct-13	9.1	2.0	9.8	1.7	8.6	2.2	8.4	0.9	9.0	0.8	8.4	0.8	9.8	1.1	10.9	2.3
Nov-13	10.9	1.3	13.0	2.6	9.4	0.3	8.5	0.4	9.2	0.4	8.5	0.3	10.4	0.2	14.6	3.4
Dec-13	9.2	-1.3	9.3	-3.3	9.1	0.2	8.2	0.2	8.7	0.4	8.4	0.3	8.9	-1.0	12.1	-1.9
Jan-14	7.9	0.5	7.2	0.0	8.4	0.9	8.1	1.0	8.2	0.6	8.1	0.8	8.1	0.5	9.5	-0.8
Feb-14	7.9	-0.3	7.6	-1.0	8.2	0.2	7.8	0.2	8.1	0.2	8.0	0.3	7.6	-0.1	9.3	-0.2
Mar-14	8.5	1.0	9.3	2.1	8.0	0.2	7.6	0.3	8.1	0.3	7.8	0.2	7.7	0.3	10.5	1.7
Apr-14	9.2	1.7	9.9	2.0	8.7	1.5	8.5	1.9	9.0	0.9	8.5	1.7	7.0	0.1	10.3	-0.1
May-14	8.3	-0.3	7.4	-1.2	9.0	0.4	8.7	0.5	8.3	0.3	8.8	0.6	7.3	-0.1	9.3	-0.9
Jun-14	8.2	0.6	7.4	1.0	8.9	0.3	8.7	0.4	7.9	0.3	9.1	0.9	7.7	1.4	8.0	1.2
Jul-14	7.9	1.7	7.0	2.7	8.5	1.0	8.3	1.1	7.6	0.8	8.4	1.0	6.6	0.5	7.6	1.8
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
* NFNE is Non-food non-energy			** Relatively Stable Component of CPI			*** SPI for all income groups combined										

* NFNE is Non-food non-energy

** Relatively Stable Component of CPI

*** SPI for all income groups combined

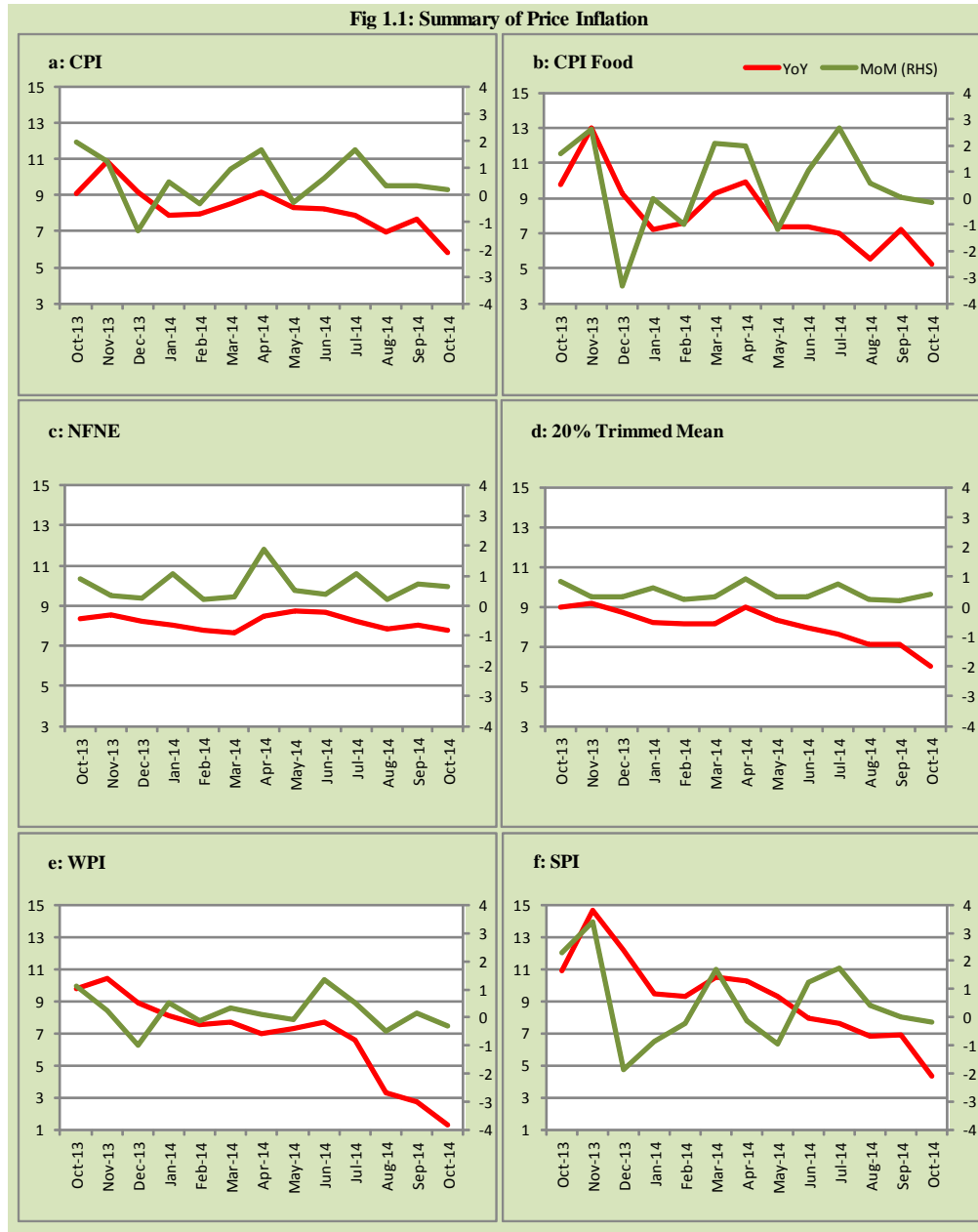


Fig 1.2: Movements in Price Indices (percent)

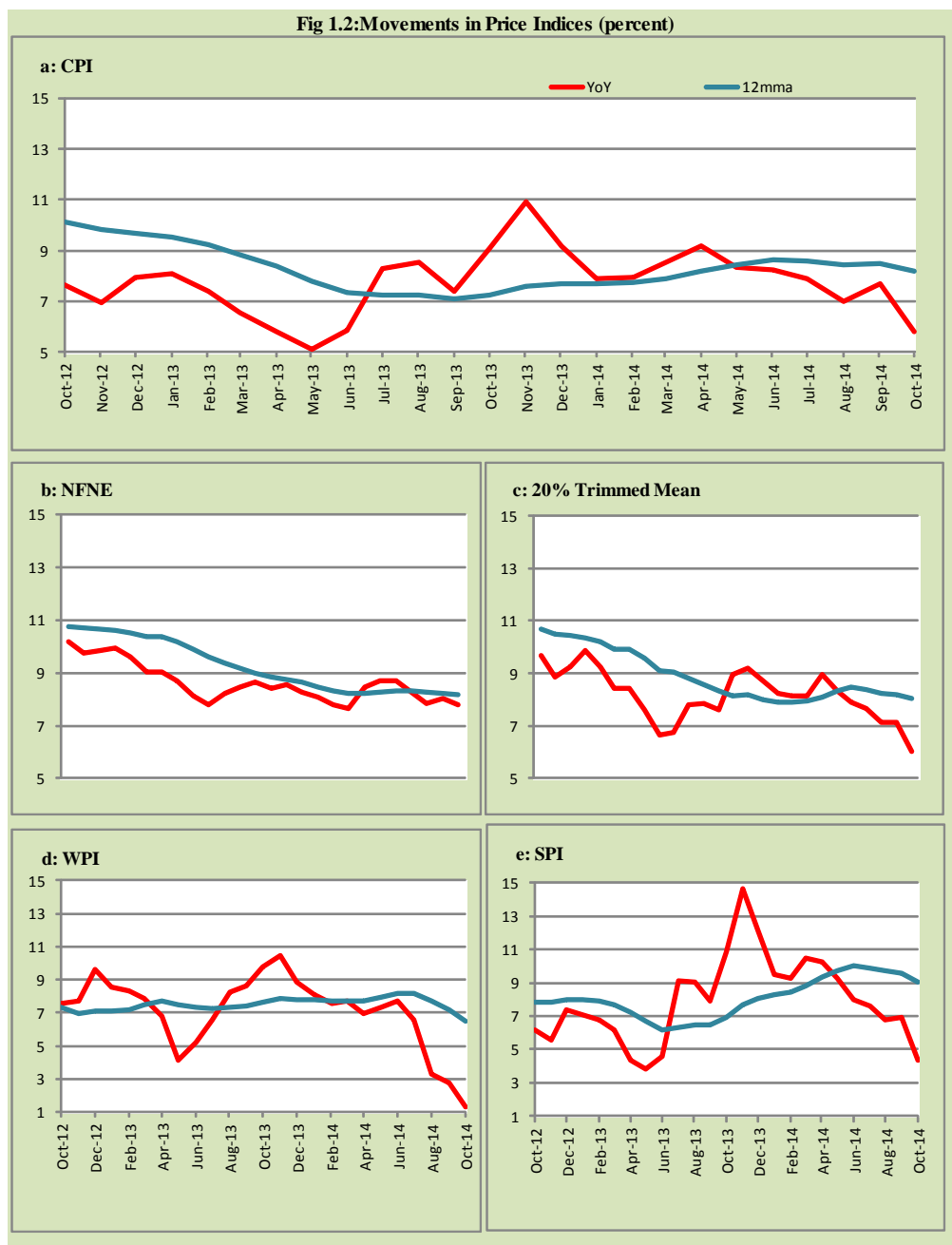
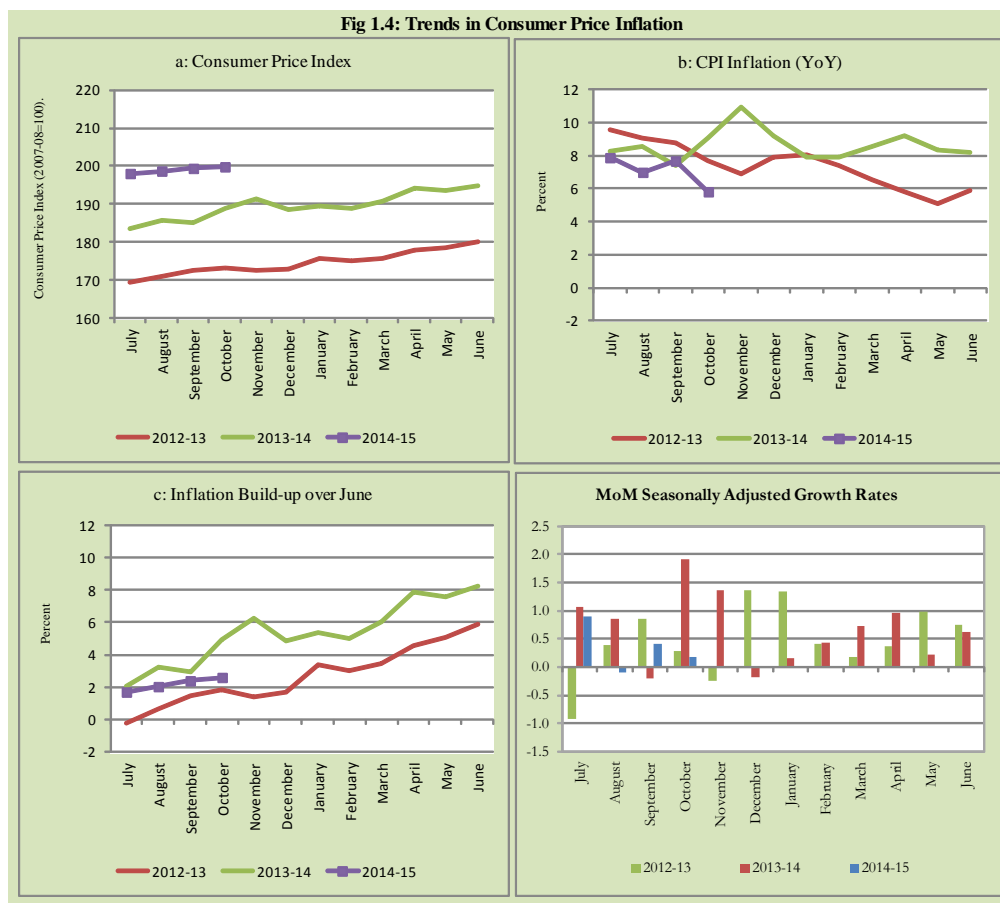




Fig 1.4: Trends in Consumer Price Inflation



2. City wise Inflation

CPI Inflation on year-on-year basis in federal and provincial capitals of Pakistan was higher than overall inflation during October 2014 except Quetta. Among these five cities, the lowest inflation was observed in Quetta at 3.6 percent while the highest inflation was observed in Lahore at 8.3 percent (Table A6 of annexure-A).

Table 2.1 City-wise Inflation of Selected Cities (percent)						
	Oct-13		Sep-14		Oct-14	
	MoM	YoY	MoM	YoY	MoM	YoY
Overall CPI	2.0	9.1	0.4	7.7	0.2	5.8
Islamabad	7.7	14.3	0.5	15.4	0.4	7.6
Karachi	1.5	6.7	0.2	8.5	0.0	6.8
Lahore	2.6	8.7	0.4	10.2	0.8	8.3
Peshawar	1.2	11.6	-0.2	7.6	0.5	6.8
Quetta	1.7	8.9	-0.4	5.2	0.3	3.6

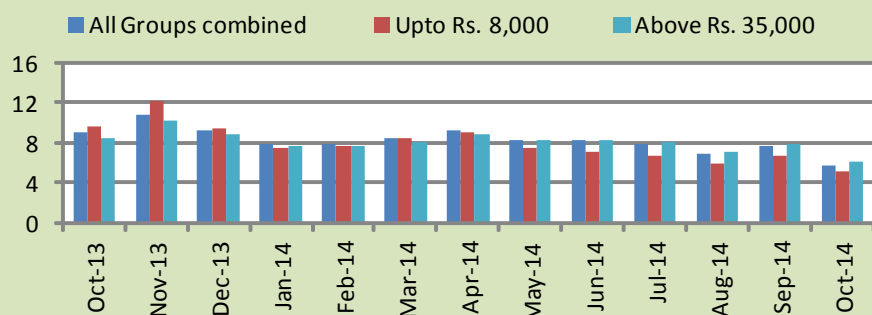
3. Income Group wise Inflation

Income group- wise data showed that income group above Rs. 35,000 witnessed higher inflation than the overall inflation in CPI basket during October 2014. The lowest income group (Up to Rs. 8, 000) has the lowest inflation in general and food groups among the income groups during the month of October 2014 (Table A7 of annexure-A).

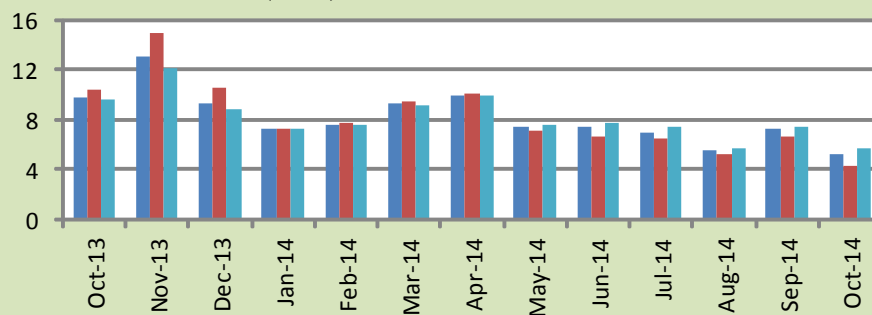
Table 3.1 Income Group- wise Inflation (YoY)									
Income Groups	General			Food			Non-food		
	Oct-13	Sep-14	Oct-14	Oct-13	Sep-14	Oct-14	Oct-13	Sep-14	Oct-14
All Groups Combined	9.1	7.7	5.8	9.8	7.2	5.2	8.6	8.0	6.2
Up to Rs. 8,000	9.6	6.6	5.2	10.4	6.6	4.3	8.4	6.6	6.4
Rs. 8,001- 12,000	9.1	6.6	5.3	10.1	6.8	4.6	8.0	6.4	6.2
Rs. 12,001- 18,000	9.9	7.8	5.5	9.9	7.0	4.9	10.0	8.5	6.0
Rs. 18,001- 35,000	9.8	7.9	5.6	9.8	7.3	5.3	9.9	8.5	5.9
Above Rs. 35,000	8.4	7.8	6.2	9.5	7.4	5.7	7.9	8.1	6.4

Fig 3.1: Income Group- wise Inflation

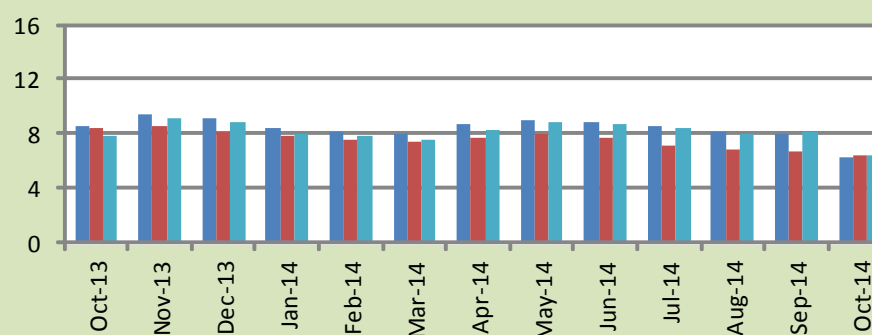
a: CPI Overall Inflation (YoY)



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 37.95 percent during October 2014 from 39.62 percent in September 2014. It was 45.18 percent in October 2013.

The weighted contribution of non-food group showed increase to touch 62.05 percent in October 2014 from 60.38 percent in September 2014.

Table 4.1 Weighted Contribution to CPI Inflation (YoY)						
Period	Food	Clothing & Footwear	Housing, Water, Elect, Gas & Other Fuel	Transport	Education	Others
Oct-13	45.18	11.62	26.61	2.68	3.37	10.55
Nov-13	50.12	9.70	22.42	6.24	2.76	8.76
Dec-13	42.35	10.02	26.60	7.26	3.33	10.44
Jan-14	38.35	11.56	30.05	5.41	3.80	10.83
Feb-14	39.62	11.30	30.01	4.66	3.59	10.82
Mar-14	45.11	10.53	27.61	3.41	2.85	10.48
Apr-14	44.99	9.50	26.89	3.49	5.60	9.53
May-14	37.10	10.81	29.55	4.60	7.03	10.91
Jun-14	37.67	10.49	29.57	3.90	7.29	11.08
Jul-14	37.86	9.99	28.62	4.75	7.38	11.40
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

5. Inflation Diffusion Index

Table 5.1 Inflation Diffusion Index - based on MoM change

	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14
General	53.9	49.7	50.0	43.6	43.6	45.9	41.2	46.5	38.9	42.8	41.2	46.2	30.9
Food & Non-Alcoholic Beverages	57.4	49.6	41.1	29.2	38.4	59.5	23.9	33.6	25.7	43.0	39.8	43.0	38.3
Alcoholic Beverages & Tobacco	50.0	-33.3	66.7	50.0	0.0	0.0	33.3	83.3	66.7	66.7	50.0	0.0	33.3
Clothing & Footwear	78.0	83.1	76.3	78.0	71.2	52.5	67.8	67.8	57.6	64.4	50.8	71.2	32.2
Housing, Water, Elect, Gas & other Fuels	61.1	44.4	25.0	55.6	25.0	27.8	38.9	27.8	33.3	36.1	33.3	33.3	30.6
Furnishing & Household Equip. Maintenance etc	82.6	85.5	89.9	76.8	81.2	75.4	82.6	89.9	69.6	69.6	75.4	76.8	43.5
Health	17.9	15.4	20.5	5.1	10.3	28.2	25.6	25.6	17.9	23.1	12.8	20.5	12.8
Transport	48.8	30.2	34.9	32.6	37.2	25.6	16.3	9.3	18.6	23.3	23.3	44.2	4.7
Communication	16.7	25.0	16.7	0.0	16.7	16.7	-8.3	16.7	8.3	16.7	16.7	25.0	8.3
Recreation & Culture	23.1	20.5	33.3	20.5	15.4	7.7	30.8	23.1	20.5	0.0	17.9	20.5	12.8
Education	25.0	0.0	37.5	25.0	0.0	12.5	31.3	62.5	68.8	37.5	25.0	18.8	18.8
Restaurant & Hotels	83.3	83.3	100.0	100.0	100.0	100.0	66.7	100.0	50.0	50.0	66.7	83.3	66.7
Miscellaneous	40.0	62.9	57.1	48.6	62.9	62.9	48.6	65.7	54.3	60.0	60.0	48.6	60.0
NFNE	51.8	52.4	53.3	48.5	46.7	42.6	48.5	51.2	43.5	43.5	42.0	49.7	29.6

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	Oct-13		Sep-14		Oct-14	
			YoY	MoM	YoY	MoM	YoY	MoM
1	Wheat	10 Kg	25.26	0.97	-0.51	0.19	-0.87	0.60
2	Wheat Flour Bag	10 Kg	23.48	0.82	0.90	0.27	0.57	0.49
3	Rice Basmati Sup. Qlty.	Kg	17.73	0.79	4.81	0.36	3.84	-0.14
4	Pulse Masoor (Washed)	Kg	11.50	0.63	14.25	0.47	14.71	1.04
5	Pulse Moong (Washed)	Kg	5.87	-0.32	19.70	-2.73	20.48	0.33
6	Pulse Mash (Washed)	Kg	-3.23	-0.09	19.04	2.24	21.05	1.59
7	Pulse Gram	Kg	-31.25	-1.08	1.12	-0.03	3.26	1.01
8	Vegetable Ghee (Loose)	Kg	-3.36	0.36	0.24	-1.47	0.07	0.18
9	Sugar Refined	Kg	2.59	3.16	12.26	6.33	6.15	-2.45
10	Milk Fresh (Unboiled)	Ltr	7.48	0.51	6.69	0.47	6.76	0.57
11	Tea- Tapal Danedar	200 Gm	38.10	0.51	-22.36	2.44	-20.96	2.31
12	Beef With Bone Av. Qlty.	Kg	3.36	0.30	6.93	0.70	6.80	0.18
13	Mutton Av. Qlty.	Kg	7.07	0.37	5.63	0.59	5.50	0.25
14	Chicken Farm Broiler (Live)	Kg	19.71	0.18	3.90	-11.40	-0.66	-4.22
15	Eggs Farm	Doz	-7.65	-0.98	6.72	1.21	8.52	0.69
16	Potatoes	Kg	44.40	24.54	99.71	-2.35	57.95	-1.51
17	Onion	Kg	31.15	13.88	-9.42	2.19	-22.43	-2.47
18	Tomatoes	Kg	50.80	7.85	3.96	33.88	-15.29	-12.12
19	Ginger	Kg	33.77	8.39	56.42	-3.48	43.46	-0.59
20	Garlic	Kg	11.55	0.89	2.92	-0.41	2.44	0.42

7. Global Commodity Prices

Table 7.1 Changes in Major Global Indices (percent)

Item/ Group	Oct-13		Sep-14		Oct-14	
	YoY	MoM	YoY	MoM	YoY	MoM
Overall	-0.5	-1.5	-9.0	-3.8	-13.6	-6.4
Food	-5.2	0.8	-6.1	-5.2	-8.0	-1.2
Metals	-2.5	0.7	-9.1	-4.0	-12.3	-2.9
Energy	1.0	-2.6	-11.2	-3.8	-17.0	-9.0
Agricultural Raw Material	3.6	1.8	1.4	-0.4	-1.2	-0.8
Cotton	9.0	-0.8	-18.5	-0.8	-21.3	-4.1

Source: IMF

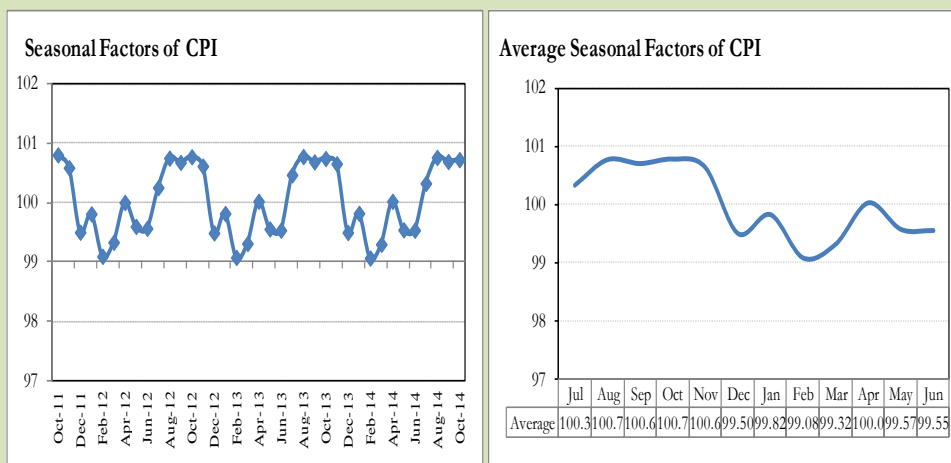
8. Seasonal Adjustment in CPI

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 October 2014 has been used for seasonal adjustment analysis. The seasonal analysis is carried out without taking trading-day or Islamic calendar month's effects.

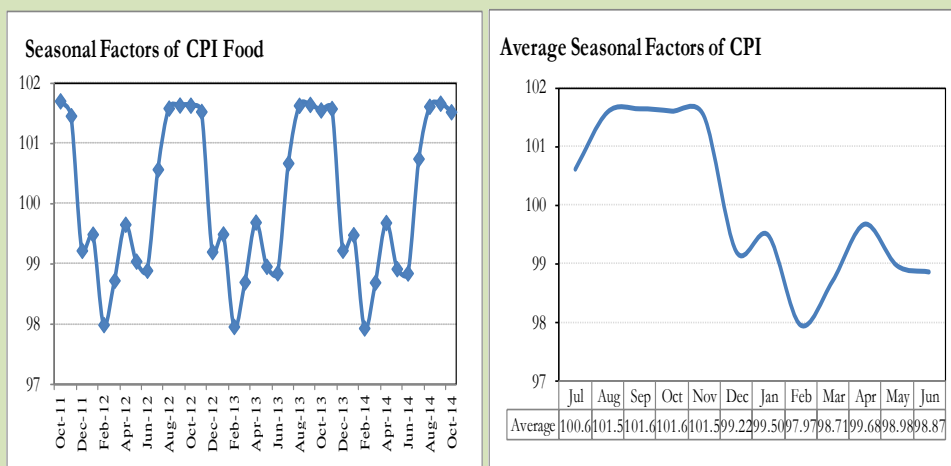
Figure 8.1 reveals that seasonality in CPI has been increasing over the period of last four years. Average seasonal factors reveal strong seasonality during the calendar year. There is an upward seasonality during the months from July to November & April and downward seasonality in the remaining months 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

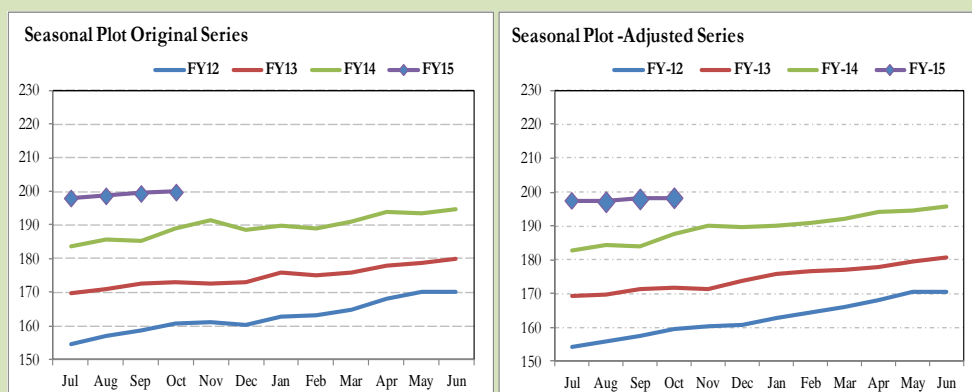
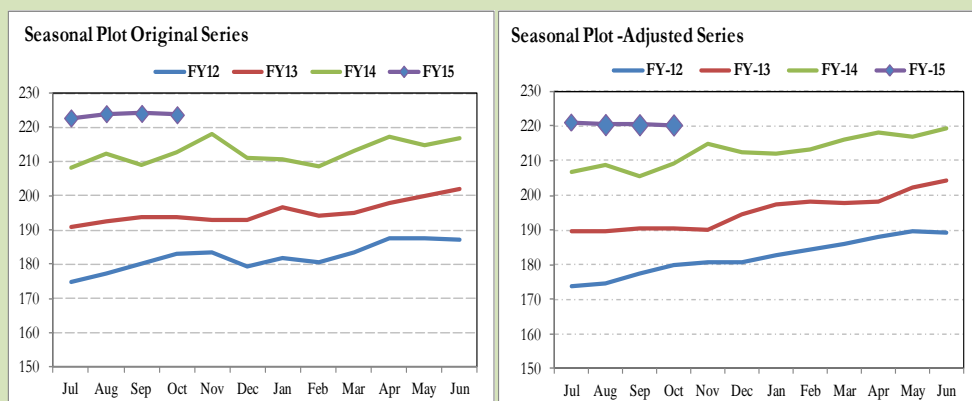


Fig. 8.4 Seasonal Plots of CPI (Food)



Seasonally adjusted CPI for October 2014 stood at 198.36 against 199.81 in original series showing a decrease of 1.45 on account of adjustment of upward seasonality in October 2014.

Seasonally adjusted CPI food group for October 2014 stood at 220.37 against 223.74 in original series showing a decrease of 3.37 on account of adjustment of upward seasonality in October 2014.

Month-on-month change of seasonally adjusted CPI series stood at 0.17% reflecting decrease during October 2014 over September 2014 and an increase of 0.21% in original series.

Month-on-month change of seasonally adjusted CPI food group series stood at -0.03% reflecting decrease during October 2014 over September 2014 and a decrease of 0.2% 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 October 2014 (corresponding to the seasonally adjusted month-on-month rate) is 2.11 percent.

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

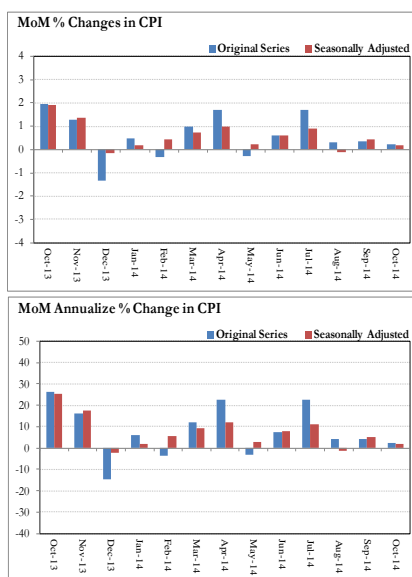
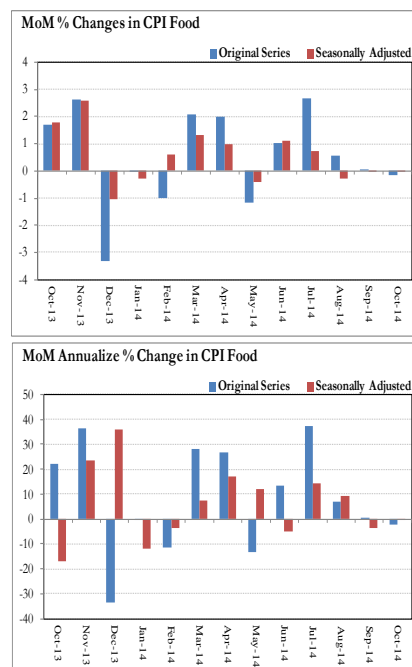


Fig. 8.6 Month-on-Month Percent Changes in CPI Food



Annexure A

Table A1: CPI Inflation by Groups (percent)							
	Weight	MoM change			YoY change		
		Oct-13	Sep-14	Oct-14	Oct-13	Sep-14	Oct-14
I. Food Group	37.5	1.7	0.0	-0.2	9.8	7.2	5.2
Food & Non-Alcoholic Beverages	34.8	1.8	0.0	-0.2	9.5	6.5	4.4
Alcoholic Beverages & Tobacco	1.4	0.2	0.0	0.0	14.6	22.4	22.2
Restaurant & Hotels	1.2	0.9	0.9	0.3	11.7	9.2	8.5
II. Non-Food Group	62.5	2.2	0.6	0.5	8.6	8.0	6.2
Clothing & Footwear	7.6	0.5	0.4	0.1	14.2	9.0	8.5
Housing, Water, Elect, Gas & other Fuels	29.4	4.1	0.0	1.0	9.5	8.8	5.6
Furnishing & Household Equip. Maintenance etc	4.2	0.7	0.8	0.1	8.8	8.5	7.8
Health	2.2	0.6	0.6	0.3	6.5	6.2	5.9
Transport	7.2	1.3	3.2	-0.1	3.1	5.4	3.9
Communication	3.2	0.0	0.0	0.0	4.9	0.1	0.1
Recreation & Culture	2.0	0.2	0.2	0.0	9.8	4.1	4.0
Education	3.9	0.9	0.3	0.3	8.7	15.3	14.6
Miscellaneous	2.8	0.7	0.3	0.4	4.7	6.1	5.8
Headline	100.0	2.0	0.4	0.2	9.1	7.7	5.8

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)	
		Oct-13	Oct-14	Oct-13	Oct-14	Oct-13	Oct-14	Oct-13	Oct-14	Oct-13	Oct-14
I. Food Group	5.2	130	130	24	27	13	34	38	31	55	38
Food & Non-Alcoholic Beverages	4.4	118	118	24	27	13	32	35	26	46	33
Alcoholic Beverages & Tobacco	22.2	6	6	0	0	0	1	2	1	4	4
Restaurant & Hotels	8.5	6	6	0	0	0	1	1	4	5	1
II. Non-Food Group	6.2	348	348	56	82	59	89	121	112	112	65
Clothing & Footwear	8.5	59	59	3	8	1	4	15	27	40	20
Housing, Water, Elect, Gas & other Fuels	5.6	36	36	2	13	3	3	22	16	9	4
Furnishing & Household Equip. Maintenance etc	7.8	69	69	1	1	16	18	34	32	18	18
Health	5.9	39	39	20	19	6	9	6	4	7	7
Transport	3.9	43	43	16	16	6	17	19	7	2	3
Communication	0.1	12	12	2	7	2	3	4	2	4	0
Recreation & Culture	4.0	39	39	8	13	14	17	4	6	13	3
Education	14.6	16	16	1	0	5	5	5	6	5	5
Miscellaneous	5.8	35	35	3	5	6	13	12	12	14	5
Overall	5.8	478	478	80	109	72	123	159	143	167	103

Note: Prices of 09 seasonal items were not reported during the month.

Table A3: Top and Bottom 15 Contributors to CPI Inflation (YoY) in October 2014					
Top 15 Contributors			YoY Change		Weighted Contribution
Items/ Contributors	Weights	Oct-13	Oct-14		
Ranked by Weighted Contribution					
1	House Rent	21.81	7.86	7.62	22.77
2	Milk Fresh	6.68	7.29	7.04	9.87
3	Education	3.94	8.70	14.59	8.79
4	Potatoes	0.45	44.41	57.95	6.93
5	Cigarette	1.39	14.72	22.38	6.19
6	Transport Services	2.70	3.70	11.56	5.91
7	Fresh Fruits	1.86	3.37	14.82	4.91
8	Cotton Cloth	1.73	14.61	14.10	4.02
9	Meat	2.43	4.58	6.36	3.22
10	Beverages	1.20	11.40	10.50	2.15
11	Ready Made Food	1.23	11.72	8.50	2.13
12	Household Servant	1.04	9.21	10.92	2.11
13	Tailoring	0.88	15.29	10.99	2.06
14	Personal Care	1.49	7.09	6.92	1.80
15	Ready Made Garment	0.97	11.94	10.26	1.75
Total		49.82			84.61
Bottom 15 Contributors					
1	Onion	0.51	31.16	-22.43	-3.35
2	Tea	0.84	24.93	-16.48	-3.19
3	Motor Fuel	3.03	1.02	-4.15	-2.23
4	Fresh Vegetable	1.75	16.75	-4.51	-1.83
5	Tomatoes	0.42	50.79	-15.29	-1.36
6	Footwear	1.55	18.52	-3.07	-0.73
7	Chicken	1.36	19.71	-0.65	-0.14
8	Wheat	0.35	25.26	-0.87	-0.06
9	Gur	0.02	22.84	-2.87	-0.02
10	Kerosene Oil	0.01	7.15	-6.41	-0.01
11	Gas	1.58	7.05	0.00	0.00
12	Electricity	4.40	15.82	0.00	0.00
13	Postal Services	0.07	24.87	0.17	0.00
14	Besan	0.15	-27.56	0.18	0.00
15	Medical Equipment	0.01	6.54	6.03	0.01
Total		16.03			-12.91

Table A3.1: Top and Bottom 15 Contributors to CPI Inflation (MoM) in October 2014

<u>Top 15 Contributors</u>		<u>MoM Change</u>		Weighted Contribution	
Items/ Contributors	Weights	Sep-14	Oct-14		
Ranked by Weighted Contribution					
1	House Rent	21.81	0.00	1.40	119.18
2	Fresh Fruits	1.86	-4.17	3.70	36.34
3	Milk Fresh	6.68	0.45	0.61	24.28
4	Transport Services	2.70	8.52	0.79	11.93
5	Wheat Flour	4.16	0.15	0.21	4.77
6	Education	3.94	0.25	0.25	4.62
7	Tea	0.84	1.42	1.07	4.58
8	Personal Equipments	0.84	0.38	0.76	4.14
9	Meat	2.43	0.66	0.20	2.90
10	Spices	0.54	0.55	0.93	2.84
11	Dry Fruits	0.25	0.23	1.83	2.69
12	Ready Made Food	1.23	0.90	0.32	2.34
13	Nimco	0.46	0.55	0.78	2.05
14	Personal Care	1.49	0.38	0.28	2.04
15	Pulse Mash (Washed)	0.21	2.24	1.59	1.82
Total		49.47			226.52
Bottom 15 Contributors					
1	Fresh Vegetable	1.75	-0.89	-3.33	-35.69
2	Tomatoes	0.42	33.88	-12.12	-27.92
3	Chicken	1.36	-11.41	-4.22	-25.04
4	Motor Fuel	3.03	-0.55	-1.21	-16.91
5	Sugar	1.04	6.33	-2.45	-13.63
6	Onion	0.51	2.19	-2.47	-7.89
7	Potatoes	0.45	-2.35	-1.51	-7.74
8	Beverages	1.20	0.09	-0.68	-4.18
9	Fish	0.30	-0.77	-0.56	-0.87
10	Gram Whole	0.16	0.08	-0.28	-0.20
11	Mustard Oil	0.10	0.04	-0.14	-0.05
12	Kerosene Oil	0.01	-0.14	-1.36	-0.05
13	Gas	1.58	0.00	0.00	0.00
14	Electricity	4.40	0.00	0.00	0.00
15	Water Supply	0.50	0.00	0.00	0.00
Total		16.79			-140.17

Table A3.2: Top Fifteen Contributors to CPI Inflation (YoY) in October 2014					
Items/ Contributors		Weights	YoY Change		Weighted Contribution
			Oct-13	Oct-14	
A. Ranked by Percentage Change					
1	Potatoes	0.45	44.41	57.95	6.93
2	Motor Vehicle Tax	0.11	1.13	36.71	0.56
3	Cigarette	1.39	14.72	22.38	6.19
4	Pulse Mash (Washed)	0.21	-3.24	21.05	0.75
5	Pulse Moong	0.23	5.87	20.48	1.01
6	Honey	0.04	5.95	14.99	0.16
7	Fresh Fruits	1.86	3.37	14.82	4.91
8	Education	3.94	8.70	14.59	8.79
9	Pulse Masoor	0.27	11.70	14.32	0.56
10	Cotton Cloth	1.73	14.61	14.10	4.02
11	Milk Powder	0.11	8.15	13.85	0.28
12	Condiments	0.27	4.08	13.76	0.73
13	Woolen Readymade Garments	0.40	16.07	11.96	0.85
14	Transport Services	2.70	3.70	11.56	5.91
15	Nimco	0.46	8.44	11.26	1.00
Total		14.18			42.67
B. Ranked by Weights					
1	House Rent	21.81	7.86	7.62	22.77
2	Milk Fresh	6.68	7.29	7.04	9.87
3	Electricity	4.40	15.82	0.00	0.00
4	Wheat Flour	4.16	24.32	0.60	0.50
5	Education	3.94	8.70	14.59	8.79
6	Communication & Apparatus	3.15	4.26	0.13	0.05
7	Motor Fuel	3.03	1.02	-4.15	-2.23
8	Transport Services	2.70	3.70	11.56	5.91
9	Meat	2.43	4.58	6.36	3.22
10	Vegetable Ghee	2.07	-4.20	0.55	0.16
11	Fresh Fruits	1.86	3.37	14.82	4.91
12	Fresh Vegetable	1.75	16.75	-4.51	-1.83
13	Cooking Oil	1.75	-2.53	0.47	0.12
14	Cotton Cloth	1.73	14.61	14.10	4.02
15	Rice	1.58	11.81	1.99	0.55
Total		63.07			56.81
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 5.8 percent in October, 2014.					

Table A3.3: Top Ten Contributors to CPI Food Inflation (YoY) in October 2014

Items/ Contributors		Weights	YoY Change		Weighted Contribution
			Oct-13	Oct-14	
A. Ranked by Weighted Contribution					
1	Milk Fresh	6.68	7.29	7.04	9.87
2	Potatoes	0.45	44.41	57.95	6.93
3	Cigarette	1.39	14.72	22.38	6.19
4	Fresh Fruits	1.86	3.37	14.82	4.91
5	Meat	2.43	4.58	6.36	3.22
6	Beverages	1.20	11.40	10.50	2.15
7	Ready Made Food	1.23	11.72	8.50	2.13
8	Bakery & Confectionary	1.16	11.92	6.40	1.30
9	Sugar	1.04	2.59	6.16	1.17
10	Pulse Moong	0.23	5.87	20.48	1.01
Total		17.67			38.89
B. Ranked by Percentage Change					
1	Potatoes	0.45	44.41	57.95	6.93
2	Cigarette	1.39	14.72	22.38	6.19
3	Pulse Mash (Washed)	0.21	-3.24	21.05	0.75
4	Pulse Moong	0.23	5.87	20.48	1.01
5	Honey	0.04	5.95	14.99	0.16
6	Fresh Fruits	1.86	3.37	14.82	4.91
7	Pulse Masoor	0.27	11.70	14.32	0.56
8	Milk Powder	0.11	8.15	13.85	0.28
9	Condiments	0.27	4.08	13.76	0.73
10	Nimco	0.46	8.44	11.26	1.00
Total		5.30			22.54
C. Ranked by Weights					
1	Milk Fresh	6.68	7.29	7.04	9.87
2	Wheat Flour	4.16	24.32	0.60	0.50
3	Meat	2.43	4.58	6.36	3.22
4	Vegetable Ghee	2.07	-4.20	0.55	0.16
5	Fresh Fruits	1.86	3.37	14.82	4.91
6	Fresh Vegetable	1.75	16.75	-4.51	-1.83
7	Cooking Oil	1.75	-2.53	0.47	0.12
8	Rice	1.58	11.81	1.99	0.55
9	Cigarette	1.39	14.72	22.38	6.19
10	Chicken	1.36	19.71	-0.65	-0.14
Total		25.05			23.56
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 5.2 percent in October, 2014.					

Table A3.4: Top Ten Contributors to CPI Non-food Inflation (YoY) in October 2014					
Items/ Contributors		Weights	YoY Change		Weighted Contribution
			Oct-13	Oct-14	
A. Ranked by Weighted Contribution					
1	House Rent	21.81	7.86	7.62	22.77
2	Education	3.94	8.70	14.59	8.79
3	Transport Services	2.70	3.70	11.56	5.91
4	Cotton Cloth	1.73	14.61	14.10	4.02
5	Household Servant	1.04	9.21	10.92	2.11
6	Tailoring	0.88	15.29	10.99	2.06
7	Personal Care	1.49	7.09	6.92	1.80
8	Ready Made Garment	0.97	11.94	10.26	1.75
9	Woolen Cloth	0.88	10.81	8.56	1.44
10	Doctor (MBBS) Clinic Fee	0.59	11.40	10.18	1.18
Total		36.05			51.82
B. Ranked by Percentage Change					
1	Motor Vehicle Tax	0.11	1.13	36.71	0.56
2	Education	3.94	8.70	14.59	8.79
3	Cotton Cloth	1.73	14.61	14.10	4.02
4	Woolen Readymade Garments	0.40	16.07	11.96	0.85
5	Transport Services	2.70	3.70	11.56	5.91
6	Tailoring	0.88	15.29	10.99	2.06
7	Household Servant	1.04	9.21	10.92	2.11
8	Hosiery	0.51	10.76	10.54	0.98
9	Marriage Hall Charges	0.08	6.94	10.31	0.15
10	Ready Made Garment	0.97	11.94	10.26	1.75
Total		12.37			27.19
C. Ranked by Weights					
1	House Rent	21.81	7.86	7.62	22.77
2	Electricity	4.40	15.82	0.00	0.00
3	Education	3.94	8.70	14.59	8.79
4	Communication & Apparatus	3.15	4.26	0.13	0.05
5	Motor Fuel	3.03	1.02	-4.15	-2.23
6	Transport Services	2.70	3.70	11.56	5.91
7	Cotton Cloth	1.73	14.61	14.10	4.02
8	Gas	1.58	7.05	0.00	0.00
9	Footwear	1.55	18.52	-3.07	-0.73
10	Personal Care	1.49	7.09	6.92	1.80
Total		45.39			40.37
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 6.2 percent in October, 2014.					

Table A4: Distribution of Price Changes (YoY) - Selected CPI Items: October 2014

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	Chillies Green, Tea Lipton Yellow Label 200 Gm, Onion, Tapal Danedar Tea 200 Gm, Cauliflower, Brinjal, Tomatoes, Turai	Vinegar Synthetic (Sirka), Rooh Afza, Cornflakes Fauji 225 Gm., Mineral Water Nestle 1.5 Litre, Beans (Lal Lobia)	Cloves Loose Av.Qlty, Eggs Farm, Suji, Tomato Ketchup Ahmed/Mitchells, Curd, Milk Powder Loose/Packed, Coffee-Nescafe 75 Gm, Nimco	Potatoes, Malta/Mosambi, Ginger, Coconut Dry Av.Qlty., Coriander Seed (Loose), Pepper Black National, Cardamom Large Loose Av. Q, Bananas, Salt Powdered (National/Shan), Pistachio Av.Qlty., Pulse Mash (Washed)
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	Tailoring Shirt, Pullover Ladies Oxford/Bon, Shoe Polish Charges Avg, Tailoring Coat-Pant Suit	Awami-Suit W & W (Boys) 24"/26", Tailoring Charges Pant (Men), Shirt Boy 24"/26" Length, Awami-Suit W&W (Gents)Av.Qlty, Tropical Suiting Law.Pur	Lawn Printed Gul Ahmed/AI Karam, Secondhand Winter Jacket, Second-Hand Coat For Men, Brassier Sup. Qlty, Frock W/Wear Girls, Brassier Av.Qlty, Shirting Av.Qlty., Pullover (Gents) Others Av.Qlty, Tailoring Suit (Female), Washing Charges Paint & Shirt
Housing, Water, Elect, Gas & other Fuels	Kerosene Oil, Elect. Charges Upto 50 Units, Elect. Charges 01 - 100 Units, Gas Chrg Over 100 - 200 Mmbtu	Bajree, Water Charges Per House, Electrician Wage Rate(P/Day)	Synthetic Enemal Robialac, Synthetic Enemal ICI, Carpenter Wage Rate, Unskilled Labour Wage Rat, Plumber Wage Rate	Cement Blocks (6"X8"X12"), Timber Shesham Log, Electrician Wage Rate(P/Pnt), Mason (Raj) Wage Rate
Furnishing & Household Equip. Maintenance etc	Surf Excel 400 Gms Poly Bag	Washing Powder 1000 Grm (Express), Tissu Paper Perfumed 100, Refg, Dawlance 10 Cft., Pedestal Fan 22" Super Qlty	Blanket (90" X 54"), Harpic, Water Set Jug+6 Glasses, Bed Sheet Single Bed Sup. Qlty, Dinner Set Plastic 72 Pcs, Cot Iron (With Niwar)Av.Qlty	Cleanser Powder Vim 1000 Gms, Boot Polish Cherry/Kiwi 50 Ml, Robin Blue (35 Gms), Finis 500 Ml, Chair Shesham Wood, Match Box (Small), Dining Table 6 Chairs, Non Stick Cooking Pan, Tea Set Pak. China Wear 21 Pcs
Health	Polyfax Eye Ointment, Flagyl Tab. 200 Mg., Betnovate-N Ointment 5 Gm, Calcium Syrup Sandoz	X-Ray (Chest) Charges, Galxos-D (450 Gm), ECG Charges, Thermometer China, Sugar Test (Random/Fasting), Saniplast (1 Putty)	Hydriyllin Syrup 120 ML, Urine Test (Dr) Charges, Glycerin Small Bottle, Cotton Bandage 2" - 4"	Amoxil Capsule 250 Mg, Renitec Tab. 5 Mg., Daonil Tab. 5 Mg., Betnesol Eye Drops, Calpol Syrup 60 Ml., Jouhar Joshanda, Doctor (MBBS) Clinic Fee
Transport	Petrol Super, High Speed Diesel HSD, Minibus Fare Min.Within City, Bus Fare Min (Within City)	CNG, Motor Cycle Service Charges, Tyre Car W/O Tube, Car Suzuki 800 CC (W/O AC), Bicycle With Tyres & Tube	Minibus Fare Max.Within City, Suzuki Fare Maximum Within City, Gas Cylinder S. Size (L.P.G), Tyre Car With Tube General	Car Tax For 800 CC To 1300 CC, Air Fare Economy Class., Cycle Overhauling Charges
Communication	Postal Envelope Domestic, Mobile Cell Charges, Telephone Charges Local Call	Fax Charges (Local), Postal Envelope For Saudi Arabia, Mobile Set Nokia/Sony/Ericsson Av.Qlty	Telephone Set Av. Qlty, Internet Charges	
Recreation & Culture	Maths Book Cals V (T.B.Board), Cinema A/C High Class, T.V. 20" Colored Sony, Video Game Sega 16 Byte	Exercise Book Lined 80/10, Photostat Paper 70 Gm, Tape Recorder Cassette (Blank), Pencil Goldfish/Deer, Pen Ink Dollor 57 Ml Bottle, Video Cassette Blank. Tdk/Sony	Fountain Pen Hero/Wings/China, English Book Class V1, Paper Fool Scape (27"X17"), Ball Pen (Local), Urdu Book Class V (T.B.Board)	Weekly "Akhbar-e-Jahan", Maths Book Class IX or X, Urdu Book Class IX/X (T.B.Board)
Education		Coaching Fee For Class IX/ X, Coaching Charges For Class XI/ XII Science Group, Pvt Eng.College Fee (1st Year)	MBA Tuition Fee, I.T. Tuition Fees, Coaching Charges For Class XI/ XII Commerce Group	Pvt School Fee Eng. Med (Class-X), Pvt School Fee Eng. Med (Class-V), Pvt School Fee Eng. Med (Class-I), Pvt School Fee Eng. Med (Class-VI), Pvt Med. College Fee MBBS(1st Year)
Restaurant & Hotels		Chicken Biryani Full/Double	Tea Prepared (Ordinary), Cooked Beef (Av. Hotel), Bread Tandoori St. Size	Cooked Mutton (Av. Hotel)
Miscellaneous	Silver Tezabi 24 Ct, Gold Tezabi 24 Ct, Toilet Soap Lifebuoy 140 Gms, Toilet Soap Lux 95 Gms	Hair Removing Cream (EU-Cream), Lipstick S. Miss/Medora, Toothbrush Shield	Beauty Parlor Hair Style Charges, Wall Clock Quartz Av.Qlty, Shampoo Sunsilk/Pantene 100 Ml	Purse Ladies (Leather) Av. Qlty, Artificial Jewellery Set, Haircut Charges For Men, Shaving Charges, Suitcase Rixin (24"X16"X6")

Table A5: City- wise CPI Inflation by Income Groups, October 2014

	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	8.1	-0.4	7.6	1.0	8.8	0.2	8.6	-0.5	7.9	0.9	9.4
2 Islamabad	0.3	6.1	-0.1	4.1	0.8	8.6	0.3	6.4	-0.3	4.9	1.0	8.2
3 Lahore	0.9	8.1	0.7	8.3	1.1	7.7	0.9	8.3	0.7	8.7	1.1	7.7
4 Gujranwala	-1.1	4.9	-1.9	5.0	0.1	4.7	-1.1	5.0	-2.0	5.7	0.0	4.2
5 Sialkot	0.7	6.3	1.0	7.3	0.3	4.8	0.6	6.2	0.9	7.6	0.3	4.6
6 Faisalabad	-1.7	3.1	-3.4	-0.1	0.6	7.4	-1.4	3.4	-3.1	0.7	0.6	6.7
7 Multan	-0.3	3.9	-0.7	3.2	0.2	4.9	-0.2	4.1	-0.6	3.4	0.2	4.8
8 Sargodha	0.6	4.7	0.1	4.0	1.1	5.5	0.5	4.7	-0.2	3.9	1.1	5.6
9 Bahawalpur	-0.1	4.1	-0.6	2.0	0.5	6.5	-0.1	4.0	-0.4	2.5	0.3	5.5
10 Karachi	-0.5	5.3	-1.3	3.4	0.7	8.1	-0.4	5.6	-1.1	4.1	0.5	7.5
11 Hyderabad	-0.1	3.3	-0.2	3.5	0.0	3.0	-0.1	3.6	-0.2	3.9	0.0	3.2
12 Sukkur	0.3	4.7	0.4	5.2	0.2	4.0	0.3	4.6	0.5	5.3	0.2	3.9
13 Larkana	0.0	3.5	0.0	2.3	0.0	4.9	0.1	3.9	0.2	2.7	0.0	5.2
14 Peshawar	0.5	6.5	0.5	6.2	0.4	7.0	0.5	6.8	0.5	6.4	0.5	7.1
15 Bannu	1.4	6.6	1.5	7.0	1.3	6.1	1.5	6.8	1.3	7.3	1.6	6.3
16 Quetta	-0.1	3.8	-1.0	4.5	1.1	2.8	0.1	3.9	-0.6	5.1	1.0	2.5
17 Khuzdar	0.6	7.8	0.9	12.3	0.1	2.4	0.5	7.5	0.9	12.6	0.1	2.2
	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	0.1	8.8	-0.6	7.6	0.9	10.1	0.1	8.4	-0.8	7.5	0.8	9.1
2 Islamabad	0.3	6.7	-0.4	5.2	0.9	8.1	0.3	6.5	-0.5	5.4	1.0	7.4
3 Lahore	0.9	8.7	0.9	9.2	1.0	8.1	0.9	8.1	1.0	9.5	0.8	6.8
4 Gujranwala	-1.1	5.0	-1.8	5.9	-0.3	4.0	-1.1	4.7	-2.0	6.2	-0.3	3.3
5 Sialkot	0.7	6.7	1.0	8.0	0.4	5.3	0.6	6.3	1.0	8.5	0.3	4.4
6 Faisalabad	-1.3	4.2	-2.9	1.4	0.3	7.1	-1.0	4.4	-2.6	2.4	0.5	6.2
7 Multan	-0.2	4.5	-0.5	3.9	0.1	5.1	-0.2	4.2	-0.5	3.8	0.1	4.5
8 Sargodha	0.6	5.0	-0.1	4.2	1.3	5.7	0.7	4.8	-0.2	4.5	1.3	5.0
9 Bahawalpur	0.0	4.4	-0.4	2.7	0.4	5.9	0.0	4.1	-0.4	3.4	0.3	4.7
10 Karachi	-0.3	6.2	-0.9	4.9	0.4	7.7	-0.2	6.2	-0.8	5.7	0.4	6.6
11 Hyderabad	-0.1	3.8	-0.1	4.4	-0.1	3.0	-0.1	3.7	-0.1	5.2	-0.1	2.3
12 Sukkur	0.3	4.5	0.4	5.5	0.1	3.5	0.2	4.1	0.4	5.9	0.0	2.7
13 Larkana	0.2	4.2	0.4	2.8	0.1	5.6	0.3	4.5	0.5	3.0	0.1	5.8
14 Peshawar	0.5	6.9	0.6	6.6	0.5	7.2	0.6	7.0	0.8	7.2	0.4	6.9
15 Bannu	1.4	7.1	1.2	7.6	1.5	6.7	1.3	7.3	0.9	7.9	1.6	6.8
16 Quetta	0.2	3.8	-0.5	5.1	0.9	2.4	0.3	3.6	-0.4	5.0	0.9	2.4
17 Khuzdar	0.3	7.2	0.7	12.7	0.0	1.9	0.4	7.1	0.8	13.5	0.0	2.0
	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	0.2	9.0	-0.8	8.0	0.7	9.5	0.2	8.8	-0.8	7.8	0.9	9.5
2 Islamabad	0.4	7.7	-0.6	6.3	0.9	8.4	0.4	7.6	-0.6	6.1	1.1	8.7
3 Lahore	0.7	8.2	0.6	8.8	0.8	7.9	0.8	8.3	0.8	9.0	0.8	7.6
4 Gujranwala	-1.0	4.2	-2.1	6.5	-0.4	3.1	-1.1	4.6	-2.0	6.1	-0.4	3.5
5 Sialkot	0.6	5.9	1.1	8.5	0.3	4.6	0.6	6.2	1.0	8.3	0.3	4.6
6 Faisalabad	-0.6	4.9	-2.3	3.3	0.3	5.7	-1.1	4.2	-2.8	1.9	0.2	5.9
7 Multan	0.0	4.7	-0.3	4.1	0.2	4.9	-0.1	4.4	-0.4	3.9	0.2	4.8
8 Sargodha	0.6	5.5	-0.3	4.5	1.0	6.0	0.6	5.0	-0.2	4.3	1.1	5.4
9 Bahawalpur	0.2	4.5	-0.2	2.8	0.4	5.2	0.0	4.2	-0.4	2.8	0.3	5.2
10 Karachi	0.1	7.3	-0.3	7.6	0.3	7.2	0.0	6.8	-0.6	6.3	0.4	7.2
11 Hyderabad	0.0	3.6	0.1	6.1	0.0	2.3	-0.1	3.6	-0.1	5.0	-0.1	2.6
12 Sukkur	0.1	3.8	0.4	5.9	0.0	2.7	0.2	4.2	0.4	5.6	0.1	3.2
13 Larkana	0.2	5.1	0.6	3.0	0.0	6.2	0.2	4.2	0.3	2.8	0.1	5.2
14 Peshawar	0.5	6.8	1.0	7.4	0.3	6.5	0.5	6.8	0.8	6.9	0.4	6.7
15 Bannu	1.0	5.6	0.6	8.5	1.2	4.2	1.3	6.7	1.1	7.8	1.4	6.0
16 Quetta	0.4	3.5	-0.2	4.7	0.7	2.9	0.3	3.6	-0.4	4.9	0.8	2.7
17 Khuzdar	0.4	5.2	1.2	13.5	-0.1	1.3	0.5	7.2	0.8	13.3	0.2	3.1

Table A6: City- wise CPI Inflation (YoY) October, 2014

City	High inflation cities			City	Low inflation cities		
	General	Food	Non-food		General	Food	Non-food
Nawabshah	9.5	6.7	11.4	Mithi	5.6	7.4	4.5
Mardan	9.0	4.4	11.7	Wazirabad	5.5	5.3	5.7
Rawalpindi	8.8	7.8	9.5	Jhang	5.4	4.0	6.3
Lahore	8.3	9.0	7.6	Attock	5.3	6.1	4.7
D.G. Khan	8.0	8.1	7.9	Abbottabad	5.2	5.5	5.0
Islamabad	7.6	6.1	8.7	Mingora	5.1	5.0	5.1
Khuzdar	7.2	13.3	3.1	Sargodha	5.0	4.3	5.4
Sahiwal	7.0	4.6	8.5	Gujranwala	4.6	6.1	3.5
Karachi	6.8	6.3	7.2	Muzaffargarh	4.5	4.5	4.5
Peshawar	6.8	6.9	6.7	Multan	4.4	3.9	4.8
Bannu	6.7	7.8	6.0	Gawadar	4.4	5.8	3.3
Sialkot	6.2	8.3	4.6	Jehlum	4.2	3.1	5.1
Mir Pur Khas	5.8	8.0	4.2	Bahawalpur	4.2	2.8	5.2
				Larkana	4.2	2.8	5.2
				Sukkur	4.2	5.6	3.2
				Faisalabad	4.2	1.9	5.9
				Quetta	3.6	4.9	2.7
				Hyderabad	3.6	5.0	2.6
				Turbat	3.6	5.3	2.4
				Mianwali	3.6	1.5	5.0
				Rahim Yar Khan	3.5	0.9	5.4
				Dera Mrd.Jamali	3.4	1.5	4.9
				D.I.Khan	3.3	1.7	4.3
				Vehari	3.2	1.9	4.1
				Dadu	2.8	2.2	3.3
				Loralai&Cantt	2.7	3.3	2.3
				Bahawalnagar	2.6	0.8	3.9

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		
	Oct-13	Sep-14	Oct-14	Oct-13	Sep-14	Oct-14
<u>Up to Rs. 8000</u>						
General	1.4	0.3	0.0	9.6	6.6	5.2
Food	1.9	0.2	-0.4	10.4	6.6	4.3
Non-food	0.8	0.4	0.6	8.4	6.6	6.4
<u>Rs. 8001- 12000</u>						
General	1.3	0.2	0.1	9.1	6.6	5.3
Food	1.8	0.1	-0.3	10.1	6.8	4.6
Non-food	0.8	0.3	0.6	8.0	6.4	6.2
<u>Rs. 12001- 18000</u>						
General	2.3	0.2	0.1	9.9	7.8	5.5
Food	1.8	0.1	-0.3	9.9	7.0	4.9
Non-food	2.9	0.4	0.5	10.0	8.5	6.0
<u>Rs. 18001- 35000</u>						
General	2.4	0.2	0.1	9.8	7.9	5.6
Food	1.7	0.0	-0.2	9.8	7.3	5.3
Non-food	3.0	0.4	0.5	9.9	8.5	5.9
<u>Above Rs. 35000</u>						
General	1.9	0.5	0.3	8.4	7.8	6.2
Food	1.6	0.0	0.0	9.5	7.4	5.7
Non-food	2.0	0.7	0.5	7.9	8.1	6.4
<u>All income groups</u>						
General	2.0	0.4	0.2	9.1	7.7	5.8
Food	1.7	0.0	-0.2	9.8	7.2	5.2
Non-food	2.2	0.6	0.5	8.6	8.0	6.2

Table A8: SPI Item-wise Price Movements

Sr.No.	Items	Unit	Prices Oct-14	Percentage change	
				YoY	MoM
1	Wheat	10Kg.	351.9	-3.0	0.4
2	Wheat Flour Bag	10Kg.	403.8	-1.8	-0.1
3	Rice Basmati Broken	Kg.	74.5	0.0	0.3
4	Rice Irri-6	Kg.	52.8	-1.7	-2.2
5	Bread Plain Med. Size (340-400 Gm.)	Each	40.8	6.1	0.2
6	Beef	Kg.	301.8	7.1	0.2
7	Mutton	Kg.	591.7	7.0	0.4
8	Chicken Live (Farm)	Kg.	134.3	-4.2	-2.7
9	Milk Fresh	Litr	75.8	10.7	0.3
10	Curd	Kg.	89.4	10.8	0.2
11	Milk Powdered Nido	500G	350.0	17.5	0.3
12	Egg Hen (Farm)	Doz.	106.1	8.4	0.3
13	Mustard Oil	Kg.	185.3	1.5	0.0
14	Cooking Oil (Tin)	2.5Ltr	537.0	-0.1	-0.4
15	Veg. Ghee (Tin)	2.5Kg.	510.7	0.1	-0.1
16	Veg. Ghee Loose	Kg.	158.8	0.5	0.6
17	Bananas	Doz.	69.8	24.9	-10.9
18	Masoor Pulse Washed	Kg.	131.3	16.4	1.9
19	Moong Pulse Washed	Kg.	150.9	21.3	0.5
20	Mash Pulse Washed	Kg.	160.5	23.8	2.1
21	Gram Pulse Washed	Kg.	75.5	6.5	2.5
22	Potatoes	Kg.	65.1	44.9	-1.3
23	Onions	Kg.	40.2	-23.4	-3.3
24	Tomatoes	Kg.	72.3	5.9	9.5
25	Sugar	Kg.	59.2	6.3	-2.2
26	Gur	Kg.	86.4	-3.1	2.5
27	Salt Powdered Loose (Lahori)	Kg.	10.0	8.4	0.7
28	Red Chilies Powder Loose	Kg.	261.2	20.4	2.9
29	Garlic	Kg.	133.6	3.3	-0.2
30	Tea (Yellow Label)	200Gm.	127.4	-25.3	1.3
31	Cooked Beef Plate	Each	82.4	8.0	0.3
32	Cooked Dal Plate	Each	47.6	5.5	0.1
33	Tea Prepared (Sada)	Cup	18.6	13.8	0.0
34	Cigarettes K-2 (20'S)	20'S	45.4	20.6	0.5
35	Long Cloth (Coarse Latha)	Mtr.	199.5	16.0	0.1
36	Shirting	Mtr.	156.8	10.7	0.0
37	Lawn	Mtr.	239.2	26.0	0.0
38	Georgette (Voil Printed)	Mtr.	123.1	11.5	0.0
39	Sandal Gents Bata	Pair	699.0	7.7	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	116.5	-8.0	-0.9
45	Firewood	40Kg	555.4	6.7	0.2
46	Energy Savor 14 Watts	Each	165.4	2.5	0.1
47	Washing Soap (200-250 Gm.)	Cake	24.4	5.5	0.0
48	Match Box	Each	1.7	24.6	4.2
49	Petrol	Litr	105.0	-8.7	-2.9
50	Diesel	Litr	108.6	-8.4	-1.1
51	L.P.G.(11 Kg Cylinder.)	Each	1687.1	9.9	16.7
52	Tele. Local Call	Call	3.9	0.0	0.0
53	Bath Soap Lifebuoy (Standard)	Cake	36.0	0.0	0.0
Maximum				44.9	16.7
Median				6.1	0.1
Minimum				-25.3	-10.9

Table A9: Distribution of Price Changes (YoY) - WPI Items: October 2014				
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	Fibre Crops, Vegetables, Millet/Bajra, Wheat, Poultry, Fish Live Fresh or Chilled, Sugar Crops	Rice	Sorghum/Jowar, Eggs, Hides and Fur Skins- Raw, Maize, Other Oil Seeds, Fuel Wood in Logs	Edible Roots/Potatoes, Stimulant and Spice Crops, Unmanufactured Tobacco, Dry Fruits, Raw Animal Material/Wool, Fresh Fruits, Milk from Bovine Animals, Cotton Seeds, Pulses
Ores & Minerals, Electricity Gas & Water	Coal Not Agglomerated, Electrical Energy	Natural Gas Liquefied		Salt & Pure Sodium Chloride
Food Products, Beverages and Tobacco, Textiles, Apparel and Leather Products	Coffee and Tea, Other Leather N.E.C, Cotton Yarn, Nylon Yarn, Blended Yarn, Footwear, Other Food Products, Vegetable Ghee, Wheat Flour, Spices, Dried Fruits & Nuts, Sugar Confectionary, Chocolate	Ice Cream, Fruit Juices, Sugar Refined, Other Cereal Flour, Vegetables & Fruit Juices, Mineral Water, Vegetable Oil Refined	Silk and Rayon Fabrics, Dairy Products N.E.C, Woven Fabrics, Towels, Meat of Animals, Cotton Fabrics	Leather Without Hairs, Woolen Carpets, Ready Made Garments, Blankets, Tobacco Products, Processed Liquid Milk, Milk and Cream in Solid Form, Beverages, Other Fabrics, Hosiery Products, Oil Cakes, Quilts, Bed Sheets, Synthetic Carpets
Other Transportable Goods except Metal Products, Machinery and Equipments	Furnace Oil, Diesel Oil, Motor Sprit, Kerosene Oil, Soaps & Detergent, Coke, Matches	Cement, Mobil Oil, Medicines, Bed Foams, Glass Sheets, Fertilizers, Auto Tyres, Printing Paper	Hard Board, Bricks Blocks and Tiles, Plastic Products	Dying Materials, Insecticides, Ceramics and Sanitary, Pesticides, Chemicals, Timber, Paints & Varnishes, Other Glass Articles
Metal Product Machinery & Equipment	Pig Iron, Engines and Motors, Vacuum Pumps, Concrete Mixer, Radio and Television	Steel Products, Chuff Cutter, Motor Cycles, Lighting Equipments, Bicycles	Electrical Wires, Refrige,Wash& Sew Mach,Iron,Fan, Air Conditioners, Steel Bars & Sheets, Motor Vehicles	Lathe Machines, Tractors, Pipe Fittings, Cultivators

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

Items and specification	Weights	Index		
		Oct-13	Sep-14	Oct-14
General	100.00	188.82	199.40	199.81
Food & Non-Alcoholic Beverages.	34.83	211.99	221.77	221.33
1 Wheat	0.35	212.47	209.37	210.63
2 Wheat Flour	4.16	221.49	222.34	222.81
3 Wheat Product	0.10	203.19	218.67	220.03
4 Besan	0.15	171.16	170.88	171.46
5 Rice	1.58	192.27	195.91	196.10
6 Cereals	0.16	227.50	238.08	238.48
7 Bakery & Confectionary	1.16	193.77	206.01	206.17
8 Nimco	0.46	213.57	235.78	237.62
9 Meat	2.43	228.63	242.68	243.17
10 Chicken	1.36	172.68	179.10	171.55
11 Fish	0.30	208.46	215.15	213.95
12 Milk Fresh	6.68	230.76	245.51	247.00
13 Milk Product	0.63	225.47	241.27	241.78
14 Milk Powder	0.11	197.75	224.30	225.13
15 Egg	0.46	198.88	214.36	215.84
16 Mustard Oil	0.10	157.41	159.12	158.89
17 Cooking Oil	1.75	161.21	161.97	161.97
18 Vegetable Ghee	2.07	156.04	156.72	156.90
19 Dry Fruits	0.25	221.30	237.15	241.48
20 Fresh Fruits	1.86	195.24	216.18	224.17
21 Pulse Masoor	0.27	159.87	181.03	182.76
22 Pulse Moong	0.23	232.81	279.56	280.50
23 Pulse Mash (Washed)	0.21	187.13	222.97	226.52
24 Pulse Gram	0.24	163.71	167.35	169.05
25 Gram Whole	0.16	174.43	179.24	178.73
26 Beans	0.03	234.82	242.22	244.36
27 Potatoes	0.45	295.14	473.29	466.16
28 Onion	0.51	322.63	256.60	250.25
29 Tomatoes	0.42	234.89	226.41	198.97
30 Fresh Vegetable	1.75	253.79	250.69	242.35
31 Sugar	1.04	200.64	218.34	212.99
32 Gur	0.02	276.11	267.14	268.19
33 Honey	0.04	260.63	299.51	299.70
34 Sweet Meet	0.25	218.95	229.84	230.79
35 Beverages	1.20	188.18	209.36	207.93
36 Jam, Tomato Ketchup & Pickle	0.25	188.91	198.62	198.66
37 Condiments	0.27	220.82	250.05	251.20
38 Spices	0.54	214.81	230.32	232.46
39 Tea	0.84	253.90	209.82	212.06
Alcoholic Beverages, Tobacco	1.41	218.25	266.59	266.62
40 Cigarette	1.39	218.68	267.63	267.63
41 Betel Leaves & Nuts	0.02	192.62	203.45	205.62
Clothing & Footwear	7.57	194.51	210.97	211.10
42 Cotton Cloth	1.73	181.33	206.89	206.89
43 Woolen Cloth	0.88	211.03	228.99	229.10
44 Ready Made Garment	0.97	192.61	212.38	212.38
45 Woolen Readymade Garments	0.40	196.12	218.60	219.58
46 Hosiery	0.51	201.09	222.19	222.29
47 Dopatta	0.44	210.56	226.62	226.62
48 Cleaning & Laundering	0.21	213.08	233.42	234.46

Table A10: Consumer Price Index Numbers by Major Groups and Composite Commodities				
Items and specification	Weights	Index		
		Oct-13	Sep-14	Oct-14
49 Tailoring	0.88	233.15	258.78	258.78
50 Footwear	1.55	169.38	164.05	164.18
Housing,Water,Elect,Gas & Other Fuel	29.41	164.17	171.70	173.39
51 House Rent	21.81	150.59	159.82	162.06
52 Construction Input Item	0.56	218.32	236.34	236.73
53 Construction Wage Rate	0.33	188.80	202.74	204.03
54 Water Supply	0.50	145.80	149.92	149.92
55 Electricity	4.40	227.44	227.44	227.44
56 Gas	1.58	143.81	143.81	143.81
57 Kerosene Oil	0.01	293.68	278.65	274.86
58 Fire Wood Whole	0.23	250.91	265.66	266.60
Furnished H.Hold Equip.& Maint. Etc	4.21	192.39	207.21	207.48
59 Furniture	0.33	182.22	198.64	198.76
60 Household Textile	0.65	188.19	202.95	203.12
61 Household Equipment	0.59	164.21	171.62	171.71
62 Utensils	0.32	190.82	208.66	209.01
63 Plastic Products	0.25	187.78	197.49	198.24
64 Washing Soap & Detergent	0.79	211.38	221.85	222.35
65 Sewing Needle & Dry Cell	0.15	170.32	182.30	183.04
66 Household Servant	1.04	203.63	225.81	225.87
67 Marriage Hall Charges	0.08	206.52	226.93	227.81
Health	2.19	165.15	174.47	174.95
68 Drug Medicine	1.27	142.10	146.53	146.84
69 Medical Equipment	0.01	208.73	221.31	221.31
70 Doctor (MBBS) Clinic Fee	0.59	214.87	235.89	236.75
71 Medical Test	0.32	163.57	170.57	171.03
Transport	7.20	197.06	205.10	204.84
72 Motor Vehicle	0.66	160.39	163.72	163.73
73 Motor Vehicle Accessories	0.24	220.01	229.28	229.28
74 Motor Fuel	3.03	195.25	189.43	187.14
75 Mechanical Service	0.46	196.39	207.03	207.30
76 Motor Vehicle Tax	0.11	153.74	210.18	210.18
77 Transport Services	2.70	207.87	230.09	231.90
Communication	3.22	129.68	129.85	129.85
78 Postal Services	0.07	215.89	216.26	216.26
79 Communication & Apparatus	3.15	127.87	128.03	128.04
Recreation & Culture	2.02	182.19	189.34	189.39
80 Recreation & Culture	0.86	125.46	127.81	127.84
81 Text Books	0.57	267.10	280.89	280.89
82 News Papers	0.19	170.49	175.42	175.42
83 Stationery	0.40	189.24	198.41	198.56
Education	3.94	167.91	191.93	192.41
84 Education	3.94	167.91	191.93	192.41
Restaurants And Hotels	1.23	223.77	242.00	242.78
85 Ready Made Food	1.23	223.77	242.00	242.78
Miscellaneous Goods And Services	2.76	208.36	219.39	220.36
86 Personal Care	1.49	190.82	203.47	204.03
87 Cosmetics	0.39	174.26	183.51	183.89
88 Blades	0.03	180.16	184.82	184.82
89 Personal Equipments	0.84	256.05	265.25	267.26

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

Items and Specifications	Index		
	Oct-13	Sep-14	Oct-14
General	211.70	215.06	214.39
Agriculture Forestry & Fishery	220.96	225.48	222.72
1 Wheat	222.41	214.19	215.03
2 Maize	182.03	195.66	193.55
3 Rice	174.66	181.27	182.99
4 Sorghum/Jowar	263.80	307.35	286.45
5 Millet/Bajra	185.50	173.72	177.35
6 Vegetables	333.60	322.71	302.11
7 Fresh Fruits	221.48	244.99	250.21
8 Dry Fruits	192.11	218.98	220.55
9 Cotton Seeds	168.29	192.17	186.82
10 Other Oil Seeds	175.89	190.46	186.54
11 Edible Roots/ Potatoes	308.49	504.54	535.17
12 Stimulant And Spice Crops	261.90	404.43	397.61
13 Pulses	175.64	193.89	193.91
14 Sugar Crops	267.92	267.92	267.92
15 Fibre Crops	225.78	182.68	170.48
16 Unmanufactured Tobacco	181.07	207.00	208.01
17 Poultry	173.31	180.11	172.75
18 Milk From Bovine Animals	223.35	248.75	248.92
19 Eggs	203.29	217.31	218.07
20 Raw Animal Material/Wool	153.55	162.90	173.82
21 Hides And Fur Skins, Raw	144.43	145.38	154.93
22 Fuel Wood In Logs	232.88	243.47	246.31
23 Fishes Live Fresh Or Chilled	248.24	244.41	247.49
Ores/Minerals, Gas & Elect.	243.64	242.99	244.75
24 Coal Not Agglomerated	223.53	223.53	223.53
25 Natural Gas Liquefied	204.63	202.94	206.65
26 Salt & Pure Sodium Chloride	217.04	248.50	247.16
27 Electrical Energy	287.44	287.44	287.44
Food, Beverages, Tobacco, Textiles	200.96	207.86	208.83
28 Meat Of Animals	239.95	256.74	257.41
29 Vegetables & Fruit Juices	192.05	194.12	196.79
30 Dried Fruits & Nuts	223.95	219.98	222.26
31 Fruit Juices	165.10	171.34	171.93
32 Vegetable Oil Refined	160.07	162.58	163.22
33 Vegetable Ghee	140.53	139.10	137.60
34 Oil Cakes	181.08	208.10	203.69
35 Processed Liquid Milk	205.54	234.27	242.78
36 Milk And Cream In Solid Form	188.09	219.41	221.48
37 Ice Cream	209.79	219.91	219.91
38 Dairy Products N.E.C	217.26	235.94	237.45
39 Wheat Flour	205.40	200.80	202.07
40 Other Cereal Flour	134.55	137.97	138.03
41 Sugar Refined	218.48	231.31	224.22
42 Chocolate	99.19	99.19	99.19
43 Sugar Confectionary	102.28	102.28	102.28
44 Coffee And Tea	230.00	183.60	186.74
45 Spices	191.28	191.60	188.66
46 Other Food Products	308.23	296.10	296.60
47 Mineral Water	181.84	185.63	185.63
48 Beverages	148.83	169.40	171.52
49 Tobacco Products	242.41	290.52	290.52
50 Cotton Yarn	223.38	192.90	190.52
51 Nylon Yarn	183.61	164.84	164.37
52 Blended Yarn	202.06	193.92	193.92
53 Woven Fabrics	218.12	226.82	237.79
54 Cotton Fabrics	187.77	196.81	200.51
55 Other Fabrics	178.98	203.01	206.11

Table A11: Wholesale Price Index Numbers by Major Groups and Composite Commodities				
		Index		
Items and Specifications		Oct-13	Sep-14	Oct-14
56 Silk And Rayon Fabrics		160.48	175.35	176.47
57 Towels		231.87	246.16	250.33
58 Blankets		189.62	223.55	230.00
59 Bed Sheets		223.74	242.12	247.46
60 Quilts		160.74	177.63	179.47
61 Woolen Carpets		106.55	132.14	132.14
62 Synthetic Carpets		114.41	126.27	126.27
63 Hosiery Products		185.37	208.91	210.35
64 Ready Made Garments		153.12	183.14	186.77
65 Leather With Out Hairs		140.50	212.86	212.86
66 Other Leather N.E.C		263.79	210.44	214.36
67 Footwear's		139.49	134.22	134.22
Other Transportable Goods		216.28	214.53	212.36
68 Timber		163.35	188.95	189.35
69 Printing Paper		167.02	169.34	169.34
70 Hard Board		214.58	229.17	229.17
71 Coke		163.45	163.45	163.45
72 Motor Sprit		191.35	180.02	175.05
73 Diesel Oil		279.68	256.53	254.48
74 Kerosene Oil		288.36	281.74	277.92
75 Furnace Oil		182.48	171.21	159.86
76 Mobil Oil		193.09	201.17	201.53
77 Chemicals		165.70	195.25	196.00
78 Dying Materials		104.26	143.77	143.77
79 Fertilizers		264.71	271.20	270.24
80 Pesticides		222.93	266.71	266.71
81 Insecticides		131.09	178.63	179.64
82 Paints & Varnishes		249.49	279.37	280.05
83 Medicines		138.77	145.03	144.59
84 Soaps & Detergent		178.79	176.33	177.77
85 Auto Tyres		185.57	188.28	188.28
86 Plastic Products		199.24	206.32	210.90
87 Glass Sheets		205.47	209.86	209.86
88 Other Glass Articles		206.09	218.27	227.13
89 Ceramics And Sanitary		170.85	207.26	212.17
90 Bricks Blocks And Tiles		192.69	203.25	204.18
91 Cement		200.39	207.79	210.17
92 Bed Foams		147.67	150.83	150.83
93 Matches		143.20	143.20	143.20
Metal Product Machinery & Equip		166.77	172.76	172.85
94 Pig Iron		128.97	128.97	128.97
95 Steel Bars & Sheets		141.14	151.35	150.97
96 Pipe Fittings		160.63	191.63	191.94
97 Steel Products		168.46	172.77	173.74
98 Engines And Motors		109.07	109.07	109.07
99 Vacuum Pumps		115.39	115.39	115.39
100 Air Conditioners		181.12	195.53	195.53
101 Cultivators		200.36	226.90	226.90
102 Chuff Cutter		144.94	149.20	149.20
103 Tractors		169.82	214.54	214.54
104 Lathe Machines		155.90	208.81	208.81
105 Concrete Mixer		138.83	138.83	138.83
106 Refrige,Wash& Sew Mach, Iron,Fan		181.62	196.04	196.81
107 Electrical Wires		168.13	184.79	184.79
108 Lighting Equipments		162.52	164.95	164.95
109 Radio And Television		126.49	126.49	126.49
110 Motor Vehicles		174.21	182.59	183.03
111 Motor Cycles		124.80	126.92	126.92
112 Bicycles		180.99	182.84	182.84

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
2012	Apr	168.00	187.43	156.35	185.48	184.45	186.13	184.03
	May	169.93	187.75	159.25	189.46	186.57	191.29	184.88
	Jun	169.99	187.35	159.58	189.37	189.36	189.37	188.14
	Jul	169.57	190.72	156.89	190.05	193.92	187.59	183.98
	Aug	171.09	192.47	158.27	191.99	195.30	189.89	186.47
	Sep	172.44	193.80	159.64	192.66	195.81	190.66	188.21
	Oct	173.10	193.66	160.77	192.88	196.21	190.77	187.32
	Nov	172.42	193.03	160.07	192.16	193.02	191.61	187.35
	Dec	172.82	192.97	160.74	192.98	195.49	191.39	187.95
2013	Jan	175.70	196.58	163.19	195.39	198.81	193.22	190.89
	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	205.10	216.67

*: all groups combined

Table A13: International Commodity Prices/ Indices				
	Jul-14	Aug-14	Sep-14	Oct-14
Energy				
Crude Oil (US\$ per barrel) *	105.2	100.1	95.9	86.1
IMF Energy Index (2005 = 100)	190.8	182.9	175.9	160.1
WB Energy Index (2010 = 100) @	126.9	121.2	116.8	106.3
Food				
Rice (\$/MT)	428.0	440.4	436.5	432.7
Wheat (\$/MT)	280.4	263.4	243.7	245.4
Sugar (US cent/ pound)	18.7	17.7	16.5	16.5
Palm Oil (\$/MT)	752.9	677.9	657.0	673.1
Soybean Oil (\$/MT)	813.9	745.8	711.7	721.4
Non-Food Non-Energy				
Cotton Outlook 'A' Index #	83.8	74.0	73.4	70.3
IMF Metal Price Index (2005 = 100)	168.8	168.2	161.4	156.8
Copper (\$/MT)	7,113.4	7,001.8	6,872.2	6,737.5
Aluminum (\$/MT)	1,948.3	2,030.5	1,990.4	1,946.2
Iron Ore (\$ cents/dry MT)	96.0	92.6	82.3	80.1
Tin (\$/MT)	22,424.0	22,231.1	21,090.5	19,830.4
Nickle (\$/MT)	19,117.7	18,600.2	18,034.8	15,812.4
Zinc (\$/MT)	2,310.6	2,327.0	2,294.6	2,276.8
Lead (\$/MT)	2,193.2	2,236.8	2,117.2	2,034.3
Uranium (\$/MT)	28.4	30.6	34.2	35.6
DAP (\$/MT)	499.4	505.0	481.6	466.5
Urea (\$/MT)	301.7	321.9	325.6	321.1
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
Jul	154.72	169.57	183.58	198.05
Aug	156.88	171.09	185.71	198.70
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	
Dec	160.12	172.82	188.68	
Jan	162.58	175.70	189.60	
Feb	163.07	175.11	189.00	
Mar	164.98	175.82	190.82	
Apr	168.00	177.74	194.06	
May	169.93	178.65	193.55	
Jun	169.99	179.94	194.74	
Seasonally Adjusted Series				
Jul	154.38	169.13	182.72	197.40
Aug	155.76	169.81	184.27	197.19
Sep	157.42	171.27	183.91	198.02
Oct	159.50	171.77	187.42	198.36
Nov	160.30	171.36	189.96	
Dec	160.92	173.70	189.63	
Jan	162.88	176.02	189.93	
Feb	164.55	176.73	190.77	
Mar	166.08	177.03	192.16	
Apr	167.99	177.69	194.01	
May	170.61	179.44	194.43	
Jun	170.72	180.77	195.64	

Table 15. CPI Food Data Series Original and Seasonally Adjusted				
Original Series				
Period	FY12	FY13	FY14	FY15
Jul	174.80	190.72	208.19	222.80
Aug	177.32	192.47	212.27	224.05
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	
Dec	179.21	192.97	210.89	
Jan	181.90	196.58	210.81	
Feb	180.69	194.05	208.74	
Mar	183.46	195.06	213.11	
Apr	187.43	197.74	217.33	
May	187.75	200.00	214.75	
Jun	187.35	202.11	216.98	
Seasonally Adjusted Series				
Jul	173.98	189.63	206.79	221.13
Aug	174.67	189.46	208.85	220.48
Sep	177.27	190.67	205.69	220.43
Oct	179.99	190.54	209.34	220.37
Nov	180.62	190.11	214.76	
Dec	180.60	194.51	212.52	
Jan	182.82	197.56	211.89	
Feb	184.38	198.08	213.13	
Mar	185.81	197.62	215.92	
Apr	188.06	198.34	218.00	
May	189.55	202.09	217.08	
Jun	189.43	204.45	219.50	

Table 16: CPI Monthly & Average Seasonal Factors					
Period	FY12	FY13	FY14	FY15	Average
Jul	100.22	100.26	100.47	100.33	100.32
Aug	100.72	100.75	100.78	100.77	100.75
Sep	100.69	100.68	100.69	100.70	100.69
Oct	100.81	100.78	100.75	100.73	100.77
Nov	100.59	100.62	100.66		100.62
Dec	99.51	99.49	99.50		99.50
Jan	99.82	99.82	99.82		99.82
Feb	99.10	99.08	99.07		99.08
Mar	99.34	99.31	99.30		99.32
Apr	100.01	100.03	100.03		100.02
May	99.60	99.56	99.55		99.57
Jun	99.57	99.54	99.54		99.55

Table 17: CPI Food Monthly & Average Seasonal Factors					
Period	FY12	FY13	FY14	FY15	Average
Jul	100.47	100.58	100.68	100.75	100.62
Aug	101.52	101.59	101.64	101.62	101.59
Sep	101.63	101.64	101.65	101.67	101.65
Oct	101.71	101.64	101.56	101.53	101.61
Nov	101.46	101.54	101.58		101.53
Dec	99.23	99.21	99.23		99.22
Jan	99.50	99.50	99.49		99.50
Feb	98.00	97.97	97.94		97.97
Mar	98.73	98.71	98.70		98.71
Apr	99.66	99.70	99.69		99.68
May	99.05	98.97	98.93		98.98
Jun	98.90	98.86	98.85		98.87

Table 18: CPI Month-on-Month % Change Original & Seasonally Adjusted				
Original Series				
Period	FY12	FY13	FY14	FY15
Jul	1.27	-0.25	2.02	1.70
Aug	1.40	0.90	1.16	0.33
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	
Dec	-0.70	0.23	-1.32	
Jan	1.54	1.67	0.49	
Feb	0.30	-0.34	-0.32	
Mar	1.17	0.41	0.96	
Apr	1.83	1.09	1.70	
May	1.15	0.51	-0.26	
Jun	0.04	0.72	0.61	
Seasonally Adjusted Series				
Jul		-0.93	1.08	0.90
Aug	0.89	0.40	0.85	-0.11
Sep	1.06	0.86	-0.20	0.42
Oct	1.32	0.29	1.91	0.17
Nov	0.50	-0.24	1.35	
Dec	0.38	1.37	-0.17	
Jan	1.22	1.33	0.16	
Feb	1.03	0.41	0.44	
Mar	0.93	0.17	0.73	
Apr	1.15	0.37	0.96	
May	1.56	0.98	0.22	
Jun	0.07	0.74	0.62	

Table 19: CPI Food Month-on-Month % Change Original & Seasonally Adjusted				
Original Series				
Period	FY12	FY13	FY14	FY15
Jul	2.90	1.80	3.01	2.68
Aug	1.44	0.92	1.96	0.56
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	
Dec	-2.21	-0.03	-3.33	
Jan	1.50	1.87	-0.04	
Feb	-0.66	-1.29	-0.98	
Mar	1.53	0.52	2.10	
Apr	2.16	1.37	1.98	
May	0.17	1.15	-1.19	
Jun	-0.21	1.05	1.04	
Seasonally Adjusted Series				
Jul		0.10	1.14	0.75
Aug	0.40	-0.09	1.00	-0.30
Sep	1.49	0.64	-1.51	-0.02
Oct	1.54	-0.07	1.77	-0.03
Nov	0.35	-0.22	2.59	
Dec	-0.01	2.31	-1.04	
Jan	1.23	1.57	-0.30	
Feb	0.86	0.26	0.58	
Mar	0.78	-0.23	1.31	
Apr	1.21	0.37	0.97	
May	0.79	1.89	-0.42	
Jun	-0.06	1.17	1.11	

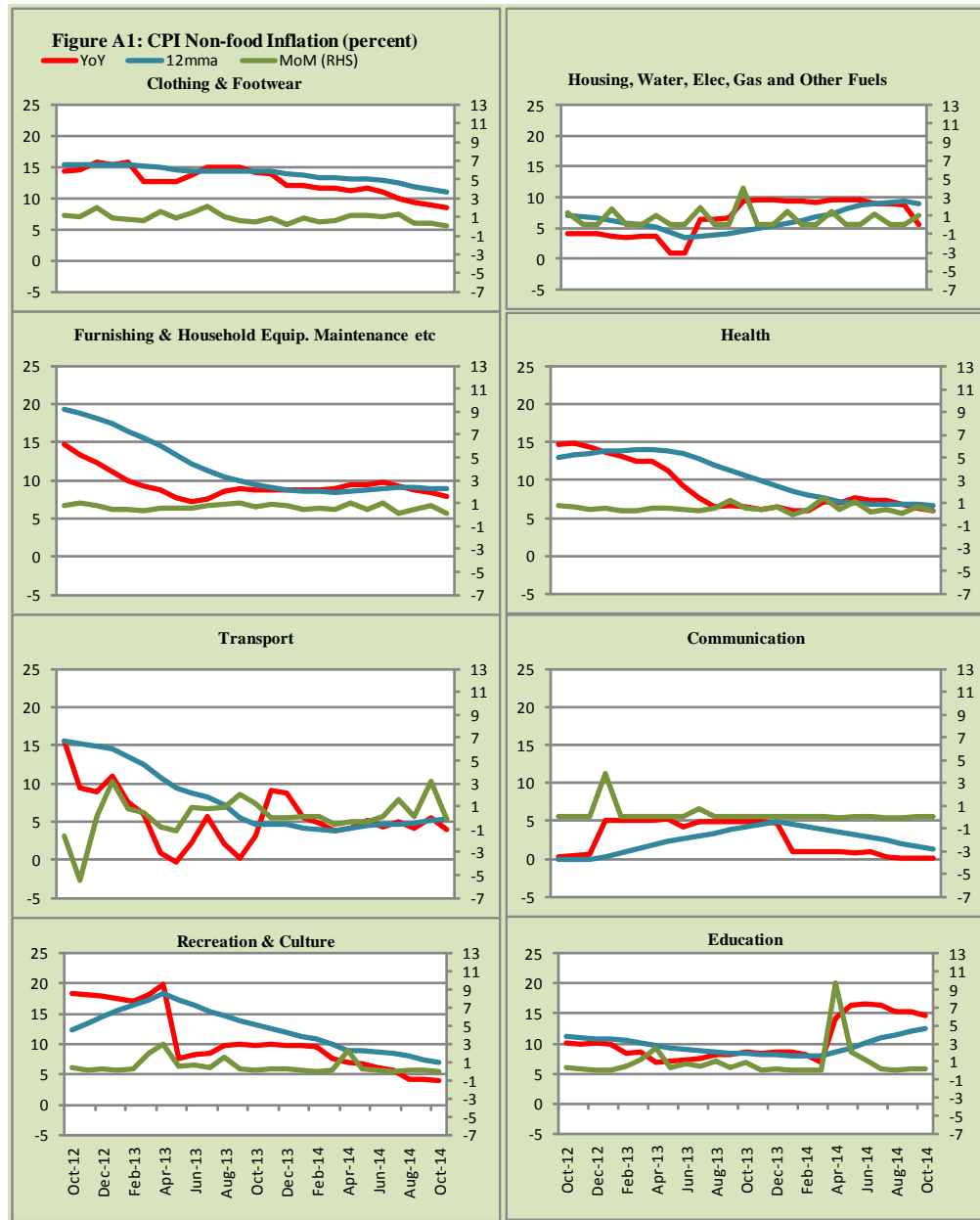


Figure A2: Frequency Distribution of Price Changes of CPI Items, October 2014

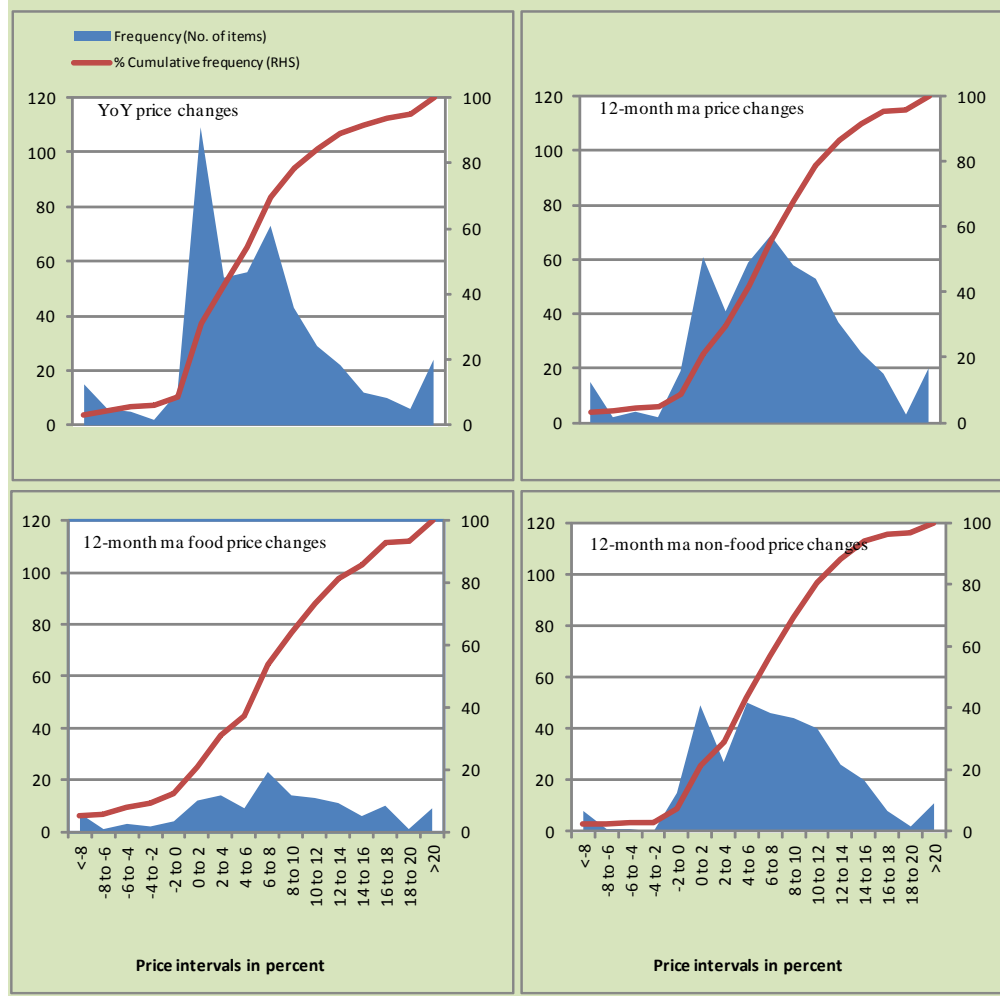
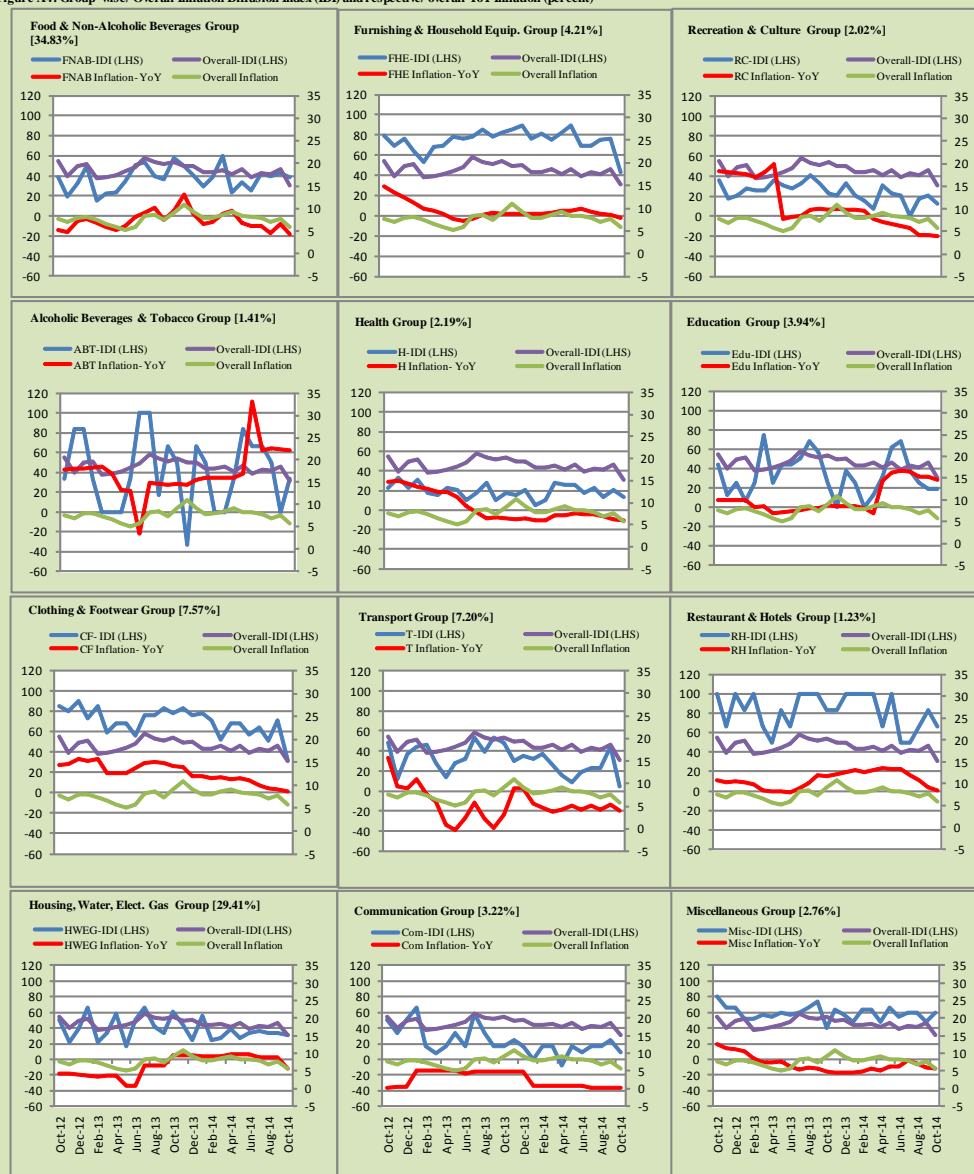


Figure A3: Frequency Distribution of Price Changes of WPI Commodities, October 2014



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.