

# **Inflation Monitor**

**September 2014**



**State Bank of Pakistan**

**Statistics & DWH Department**

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## **Review**

### **Inflation in Brief**

1. Headline CPI inflation (2007-08=100) is recorded at 7.7 percent on year-on-year basis in September 2014 as compared to 7.0 percent in the previous month and 7.4 percent in the corresponding month of last year.
2. CPI inflation on month-on-month basis is recorded at 0.4 percent in September 2014 as compared to 0.3 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 0.5 percent in September 2014 compared to -0.1 percent in the previous month.
3. Core inflation (trimmed) on year-on-year basis remained at the level of 7.1 percent in September 2014 as in the previous month while it was 7.6 percent during the corresponding month of last year.
4. On month-on-month basis, the Core inflation (trimmed) remained at the level of 0.2 percent in September 2014 as in the previous month and recorded at 0.6 percent during the corresponding month of last year.
5. Non-food, non-energy inflation measured by CPI Core (NFNE) on year-on-year basis increased to 8.0 percent in September 2014 as compared to 7.8 percent in the previous month. It was 8.7 percent in the corresponding month of last year.
6. Core NFNE inflation on month-on-month basis increased to 0.7 percent in September 2014 as compared to 0.2 percent in the previous month. A 0.6 percent increase in Core NFNE index was observed in September 2013.
7. WPI inflation on year-on-year basis decreased to 2.7 percent in September 2014 when compared to 3.3 percent a month earlier. During September 2013, WPI inflation was recorded at 8.7%.

8. WPI inflation on month-on-month basis recorded at 0.2 percent in September 2014 as compared to -0.5 percent in the previous month and 0.7 percent during the corresponding month of last year.
9. SPI inflation on year-on-year basis increased to 6.9 percent in September 2014 as compared to 6.8 percent in the previous month. It was 7.9 percent in the corresponding month of last year.
10. SPI inflation on month-on-month basis recorded a negligible decrease in September 2014 as compared to 0.4 percent in the previous month and recorder at -0.1 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 September 2014 are described below:

- Core inflation based on new measure RSC on year-on-year basis is recorded at 8.2 percent in September 2014 compared to 8.0 percent in the previous month and 8.5 percent in the corresponding month of last year.
- Core RSC inflation on month-on-month basis is recorded at 0.6 percent in September 2014 compared to 0.2 percent in the previous month and 0.5 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
Sep-13	7.4	-0.3	7.9	-1.5	7.0	0.6	8.7	0.6	7.6	0.6	8.5	0.5	8.7	0.7	7.9	-0.1
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
* NFNE is Non-food non-energy      ** Relatively Stable Component of CPI      *** SPI for all income groups combined																

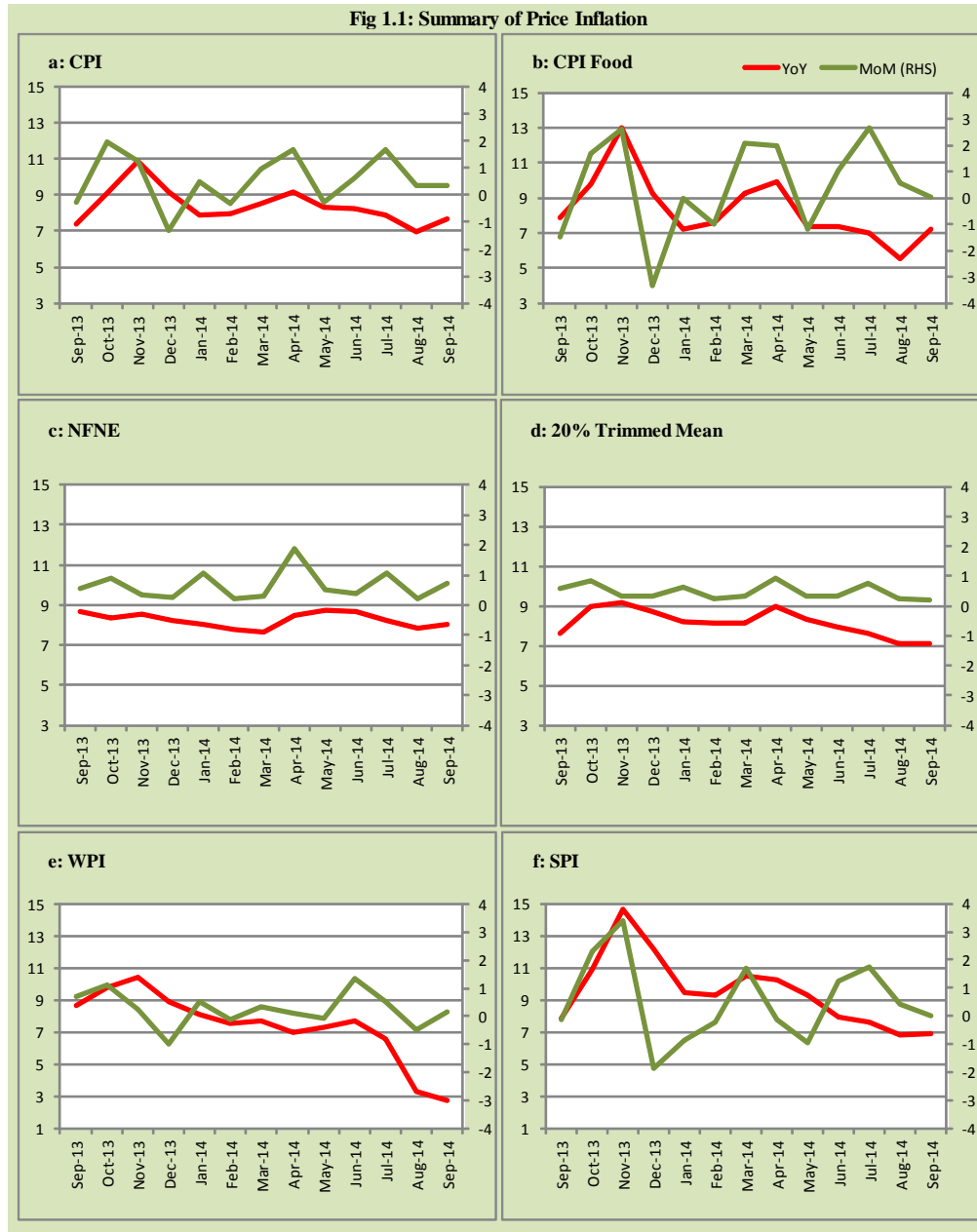
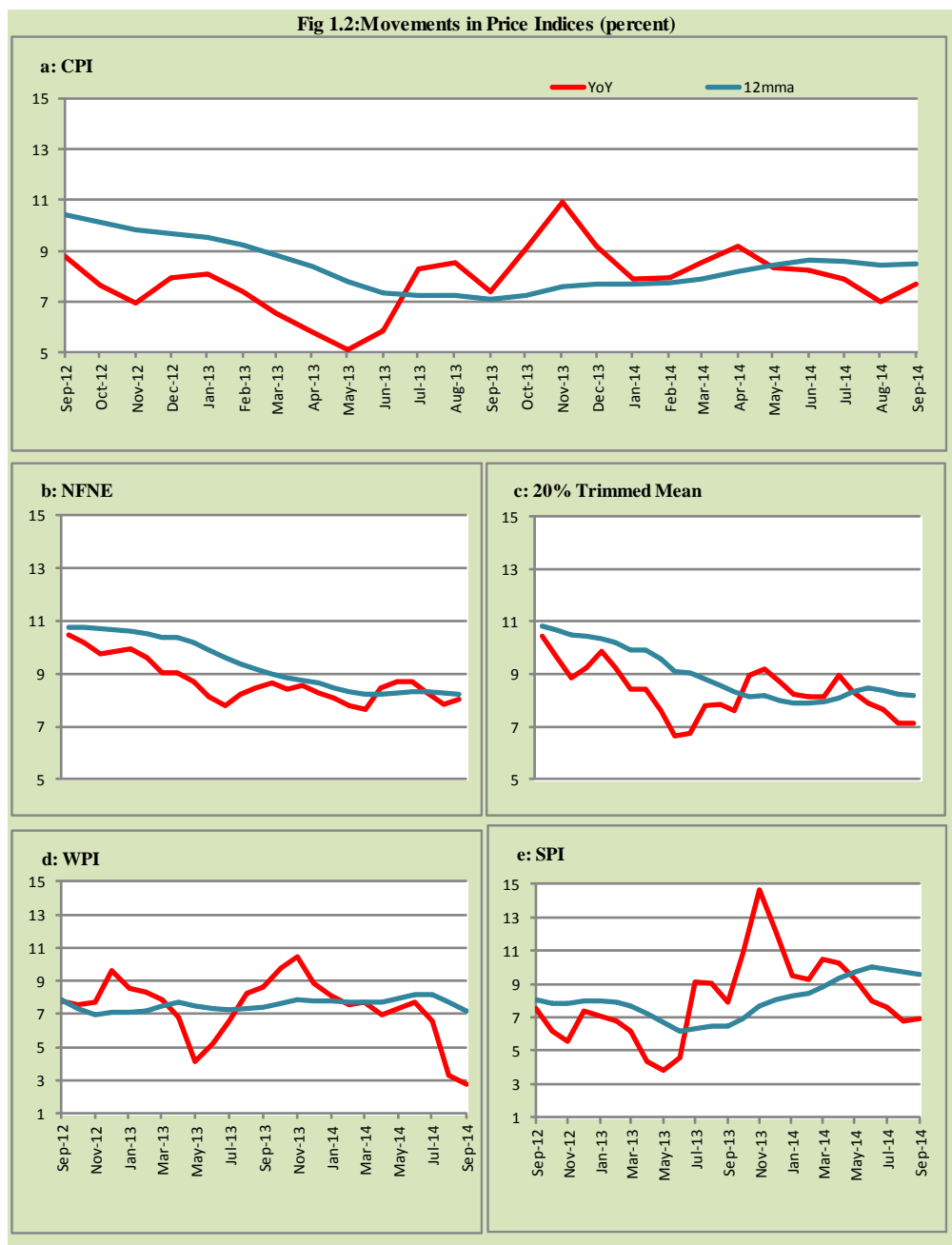




Fig 1.2: Movements in Price Indices (percent)



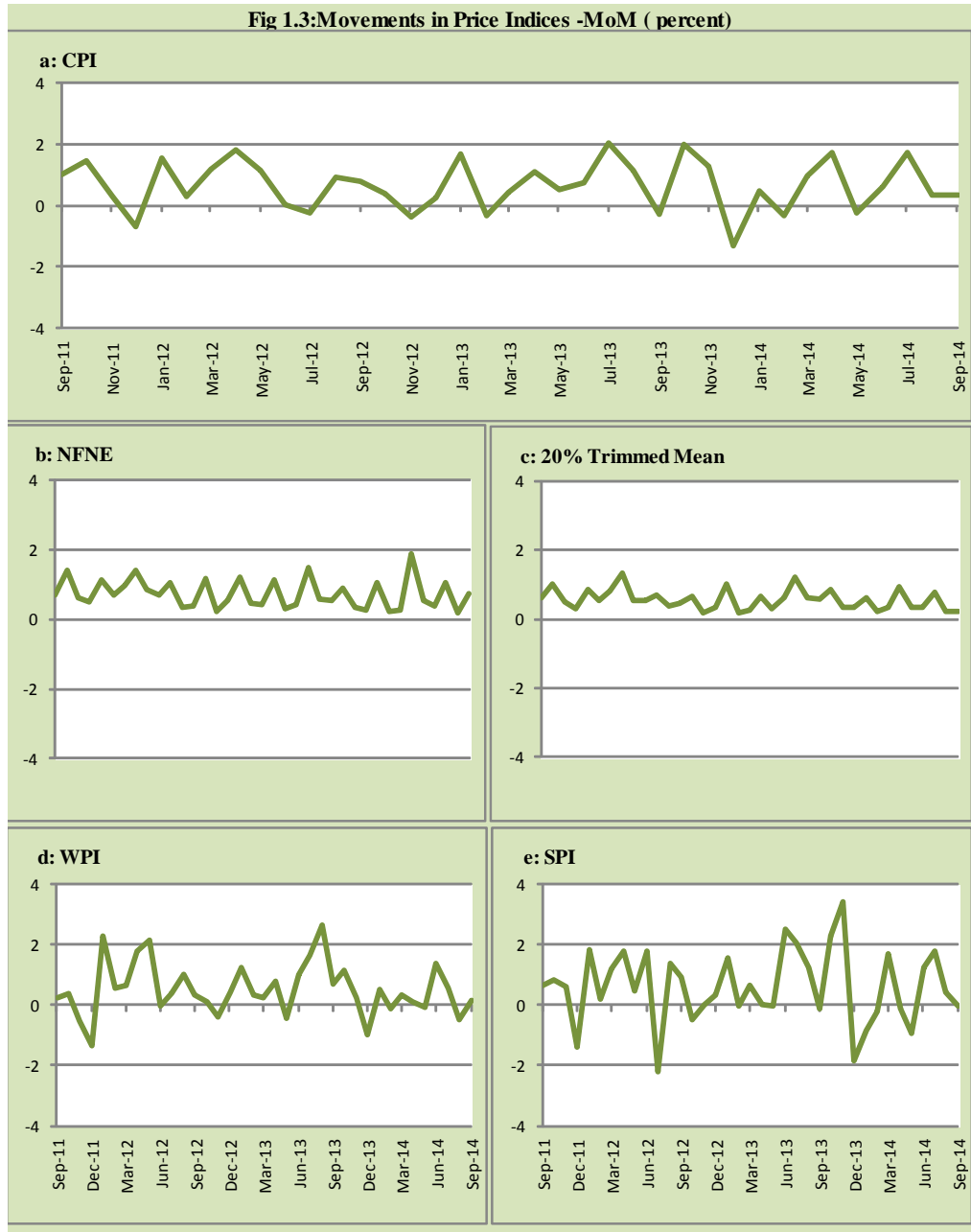
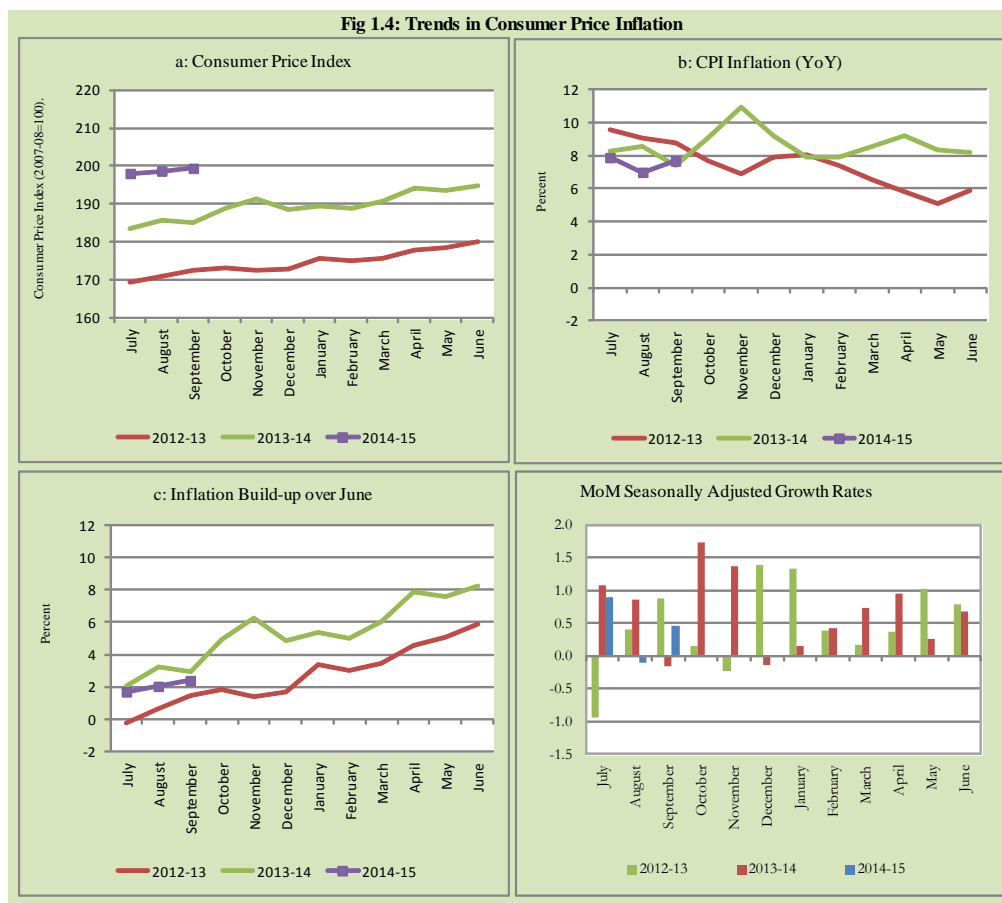


Fig 1.4: Trends in Consumer Price Inflation



## 2. City wise Inflation

CPI Inflation on year-on-year basis in federal and provincial capitals of Pakistan was higher than overall inflation during September 2014 except Quetta. Among these five cities, the lowest inflation was observed in Quetta at 5.2 percent while the highest inflation was observed in Islamabad at 15.4 percent (Table A6 of annexure-A).

<b>Table 2.1 City-wise Inflation of Selected Cities (percent)</b>						
	<b>Sep-13</b>		<b>Aug-14</b>		<b>Sep-14</b>	
	<b>MoM</b>	<b>YoY</b>	<b>MoM</b>	<b>YoY</b>	<b>MoM</b>	<b>YoY</b>
<b>Overall CPI</b>	-0.3	7.4	0.3	7.0	0.4	7.7
Islamabad	-0.6	6.1	0.8	14.2	0.5	15.4
Karachi	-0.3	5.7	-0.2	7.9	0.2	8.5
Lahore	-0.4	5.8	0.6	9.3	0.4	10.2
Peshawar	0.1	10.2	1.0	7.8	-0.2	7.6
Quetta	-0.6	8.1	-0.3	4.9	-0.4	5.2

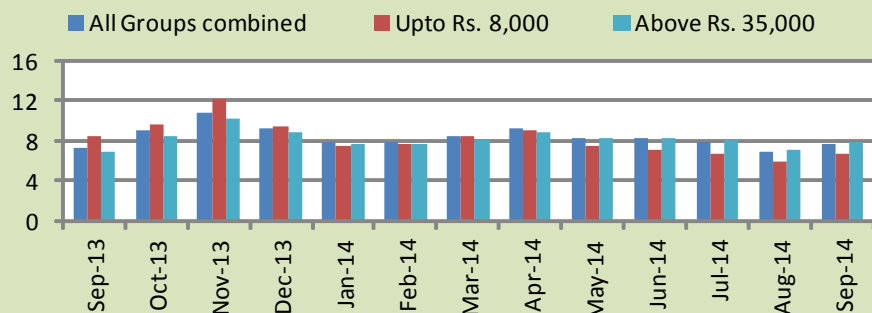
### **3. Income Group wise Inflation**

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

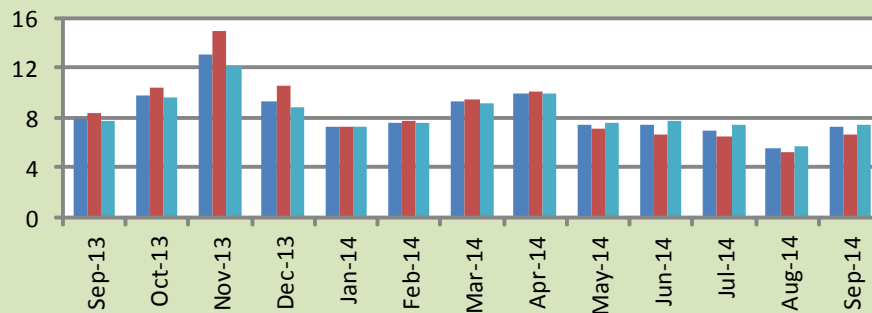
<b>Table 3.1 Income Group- wise Inflation (YoY)</b>									
<b>Income Groups</b>	<b>General</b>			<b>Food</b>			<b>Non-food</b>		
	<b>Sep-13</b>	<b>Aug-14</b>	<b>Sep-14</b>	<b>Sep-13</b>	<b>Aug-14</b>	<b>Sep-14</b>	<b>Sep-13</b>	<b>Aug-14</b>	<b>Sep-14</b>
<b>All Groups Combined</b>	7.4	7.0	7.7	7.9	5.6	7.2	7.0	8.1	8.0
Up to Rs. 8,000	8.5	6.0	6.6	8.3	5.3	6.6	8.6	6.8	6.6
Rs. 8,001- 12,000	8.1	6.0	6.6	8.1	5.4	6.8	8.1	6.6	6.4
Rs. 12,001- 18,000	7.9	7.1	7.8	7.9	5.5	7.0	7.8	8.7	8.5
Rs. 18,001- 35,000	7.7	7.3	7.9	7.8	5.6	7.3	7.6	8.7	8.5
Above Rs. 35,000	6.8	7.2	7.8	7.8	5.7	7.4	6.4	8.0	8.1

**Fig 3.1: Income Group- wise Inflation**

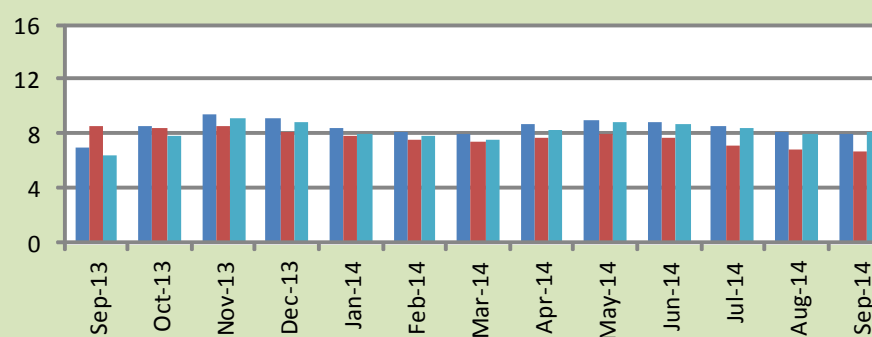
**a: CPI Overall Inflation (YoY)**



**b: CPI Food Inflation (YoY)**



**c: CPI Non-Food Inflation (YoY)**



#### **4. Weighted Contribution**

The weighted contribution of food group in the overall inflation increased to 39.62 percent during September 2014 from 34.01 percent in August 2014. It was 44.97 percent in September 2013.

The weighted contribution of non-food group showed decrease to touch 60.38 percent in September 2014 from 65.99 percent in August 2014.

<b>Table 4.1 Weighted Contribution to CPI Inflation (YoY)</b>						
<b>Period</b>	<b>Food</b>	<b>Clothing &amp; Footwear</b>	<b>Housing, Water, Elect, Gas &amp; Other Fuel</b>	<b>Transport</b>	<b>Education</b>	<b>Others</b>
Sep-13	44.97	14.90	22.53	0.16	3.91	13.52
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

## 5. Inflation Diffusion Index

**Table 5.1 Inflation Diffusion Index - based on MoM change**

	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14
General	51.4	53.9	49.7	50.0	43.6	43.6	45.9	41.2	46.5	38.9	42.8	41.2	46.2
Food & Non-Alcoholic Beverages	36.3	57.4	49.6	41.1	29.2	38.4	59.5	23.9	33.6	25.7	43.0	39.8	43.0
Alcoholic Beverages & Tobacco	66.7	50.0	-33.3	66.7	50.0	0.0	0.0	33.3	83.3	66.7	66.7	50.0	0.0
Clothing & Footwear	83.1	78.0	83.1	76.3	78.0	71.2	52.5	67.8	67.8	57.6	64.4	50.8	71.2
Housing, Water, Elect, Gas & other Fuels	33.3	61.1	44.4	25.0	55.6	25.0	27.8	38.9	27.8	33.3	36.1	33.3	33.3
Furnishing & Household Equip. Maintenance etc	78.3	82.6	85.5	89.9	76.8	81.2	75.4	82.6	89.9	69.6	69.6	75.4	76.8
Health	10.3	17.9	15.4	20.5	5.1	10.3	28.2	25.6	25.6	17.9	23.1	12.8	20.5
Transport	53.5	48.8	30.2	34.9	32.6	37.2	25.6	16.3	9.3	18.6	23.3	23.3	44.2
Communication	16.7	16.7	25.0	16.7	0.0	16.7	16.7	-8.3	16.7	8.3	16.7	16.7	25.0
Recreation & Culture	33.3	23.1	20.5	33.3	20.5	15.4	7.7	30.8	23.1	20.5	0.0	17.9	20.5
Education	56.3	25.0	0.0	37.5	25.0	0.0	12.5	31.3	62.5	68.8	37.5	25.0	18.8
Restaurant & Hotels	100.0	83.3	83.3	100.0	100.0	100.0	100.0	66.7	100.0	50.0	50.0	66.7	83.3
Miscellaneous	74.3	40.0	62.9	57.1	48.6	62.9	62.9	48.6	65.7	54.3	60.0	60.0	48.6
NFNE	55.9	51.8	52.4	53.3	48.5	46.7	42.6	48.5	51.2	43.5	43.5	42.0	49.7

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	Sep-13		Aug-14		Sep-14	
			YoY	MoM	YoY	MoM	YoY	MoM
1	Wheat	10 Kg	24.31	2.93	2.22	2.88	-0.51	0.19
2	Wheat Flour Bag	10 Kg	22.67	2.67	3.31	3.98	0.90	0.27
3	Rice Basmati Sup. Qlty.	Kg	17.55	0.74	5.21	0.17	4.81	0.36
4	Pulse Masoor (Washed)	Kg	10.16	1.16	15.04	-0.03	14.25	0.47
5	Pulse Moong (Washed)	Kg	4.60	-1.23	21.54	-4.70	19.70	-2.73
6	Pulse Mash (Washed)	Kg	-3.45	0.15	16.61	4.41	19.04	2.24
7	Pulse Gram	Kg	-31.06	-3.20	-2.09	0.24	1.12	-0.03
8	Vegetable Ghee (Loose)	Kg	-5.04	-0.49	1.24	-0.16	0.24	-1.47
9	Sugar Refined	Kg	0.72	-0.33	5.23	2.02	12.26	6.33
10	Milk Fresh (Unboiled)	Ltr	7.05	0.00	6.19	0.11	6.69	0.47
11	Tea- Tapal Danedar	200 Gm	37.40	0.85	-23.56	-0.23	-22.36	2.44
12	Beef With Bone Av. Qlty.	Kg	3.61	0.93	7.17	1.20	6.93	0.70
13	Mutton Av. Qlty.	Kg	6.89	0.74	5.78	0.68	5.63	0.59
14	Chicken Farm Broiler (Live)	Kg	12.56	-24.50	-11.45	1.19	3.90	-11.40
15	Eggs Farm	Doz	9.42	13.20	19.37	19.48	6.72	1.21
16	Potatoes	Kg	14.95	4.53	113.78	3.13	99.71	-2.35
17	Onion	Kg	26.13	-15.63	-25.21	8.93	-9.42	2.19
18	Tomatoes	Kg	29.36	-23.60	-40.67	1.13	3.96	33.88
19	Ginger	Kg	57.97	12.24	81.90	-5.86	56.42	-3.48
20	Garlic	Kg	12.10	0.03	3.38	11.69	2.92	-0.41

## 7. Global Commodity Prices

**Table 7.1 Changes in Major Global Indices (percent)**

Item/ Group	Sep-13		Aug-14		Sep-14	
	YoY	MoM	YoY	MoM	YoY	MoM
<b>Overall</b>	-1.0	-0.3	-5.5	-3.2	-8.7	-3.8
Food	-7.6	-3.8	-4.8	-3.4	-6.1	-5.2
Metals	-1.3	-1.7	-7.0	-0.3	-9.1	-4.0
Energy	0.8	0.7	-6.8	-3.9	-10.9	-3.8
Agricultural Raw Material	1.2	0.3	3.3	-1.0	2.7	-0.2
Cotton	7.1	-2.8	-20.2	-11.7	-18.5	-0.8

Source: IMF



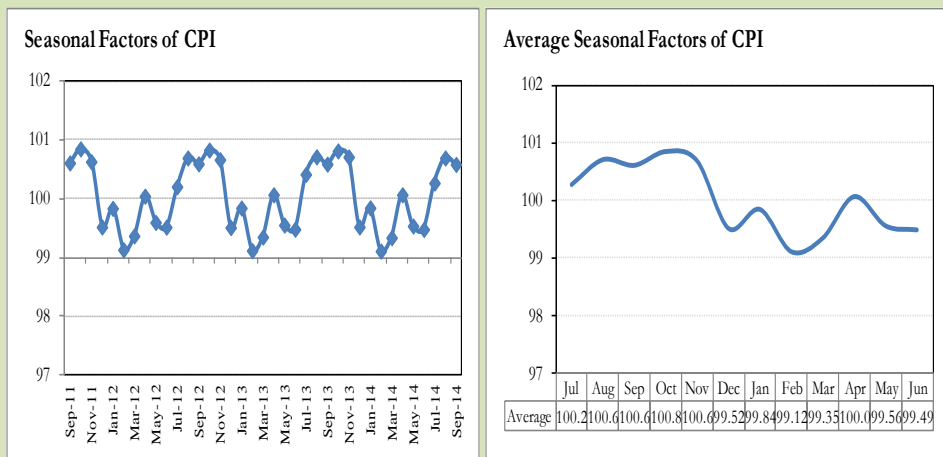
## **8. Seasonal Adjustment in CPI**

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

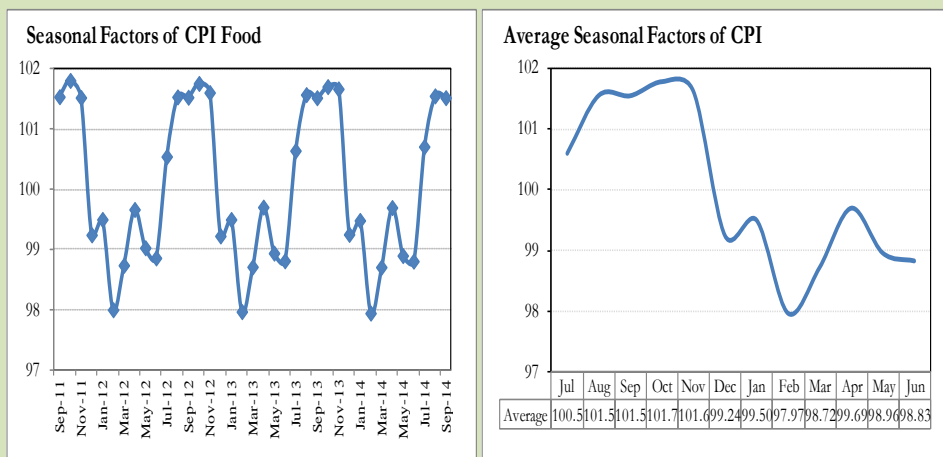
Figure 8.1 reveals that seasonality in CPI has been increasing over the period of last four years. Average seasonal factors reveal strong seasonality during the calendar year. There is an upward seasonality during the months from July to November & April and downward seasonality in the remaining months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

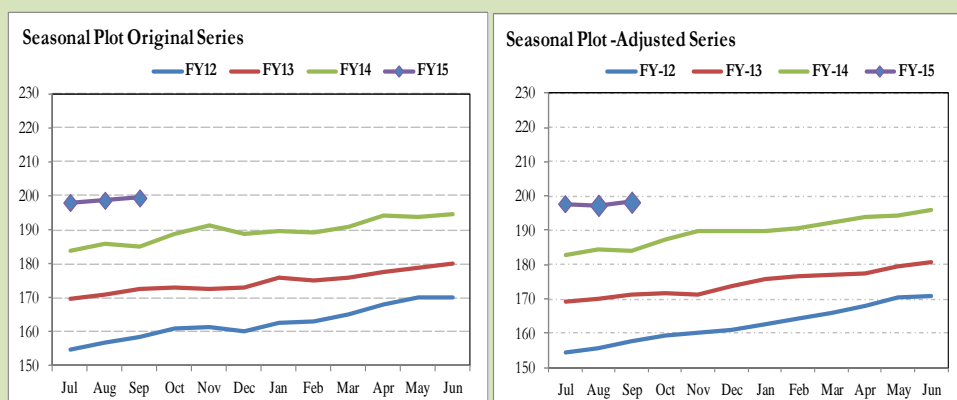
**Fig. 8.2 Seasonal Factors of CPI Food**



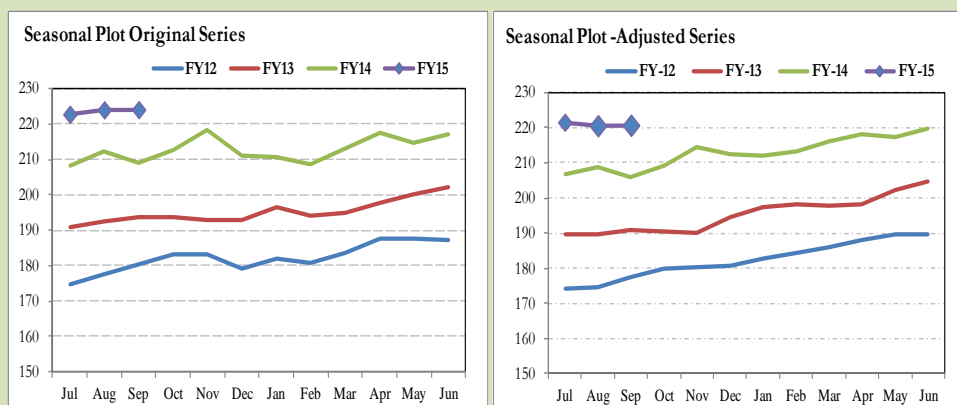
Note: Data Available in Annex Table 17.

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 September 2014 stood at 198.24 against 199.40 in original series showing a decrease of 1.16 on account of adjustment of upward seasonality in September 2014.

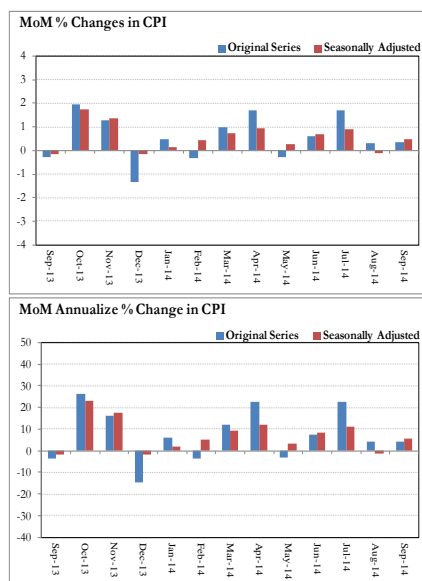
Seasonally adjusted CPI food group for September 2014 stood at 220.74 against 224.12 in original series showing a decrease of 3.38 on account of adjustment of upward seasonality in September 2014.

Month-on-month change of seasonally adjusted CPI series stood at 0.46% reflecting increase during September 2014 over August 2014 and an increase of 0.35% in original series.

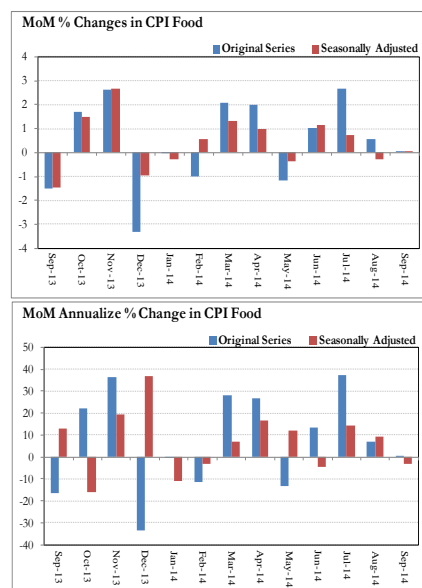
Month-on-month change of seasonally adjusted CPI food group series stood at 0.06% reflecting increase during September 2014 over August 2014 and an increase of 0.03% in original series.

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 September 2014 (corresponding to the seasonally adjusted month-on-month rate) is 5.68 percent.

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



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



**Annexure A**

<b>Table A1: CPI Inflation by Groups (percent)</b>							
	Weight	MoM change			YoY change		
		Sep-13	Aug-14	Sep-14	Sep-13	Aug-14	Sep-14
<b>I. Food Group</b>	<b>37.5</b>	<b>-1.5</b>	<b>0.6</b>	<b>0.0</b>	<b>7.9</b>	<b>5.6</b>	<b>7.2</b>
Food & Non-Alcoholic Beverages	34.8	-1.7	0.6	0.0	7.5	4.7	6.5
Alcoholic Beverages & Tobacco	1.4	0.2	0.3	0.0	14.5	22.6	22.4
Restaurant & Hotels	1.2	2.5	0.3	0.9	12.0	10.9	9.2
<b>II. Non-Food Group</b>	<b>62.5</b>	<b>0.6</b>	<b>0.2</b>	<b>0.6</b>	<b>7.0</b>	<b>8.1</b>	<b>8.0</b>
Clothing & Footwear	7.6	0.6	0.3	0.4	14.9	9.3	9.0
Housing, Water, Elect, Gas & other Fuels	29.4	0.1	0.0	0.0	6.6	8.9	8.8
Furnishing & Household Equip. Maintenance etc	4.2	1.1	0.5	0.8	8.9	8.7	8.5
Health	2.2	1.2	0.0	0.6	6.7	6.8	6.2
Transport	7.2	2.1	0.2	3.2	0.1	4.2	5.4
Communication	3.2	0.0	0.0	0.0	4.9	0.1	0.1
Recreation & Culture	2.0	0.3	0.1	0.2	10.1	4.3	4.1
Education	3.9	0.3	0.1	0.3	8.2	15.3	15.3
Miscellaneous	2.8	1.4	0.8	0.3	5.7	7.1	6.1
<b>Headline</b>	<b>100.0</b>	<b>-0.3</b>	<b>0.3</b>	<b>0.4</b>	<b>7.4</b>	<b>7.0</b>	<b>7.7</b>

<b>Table A2: Distribution of Price changes (YoY) of CPI basket</b>											
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)	
		Sep-13	Sep-14	Sep-13	Sep-14	Sep-13	Sep-14	Sep-13	Sep-14	Sep-13	Sep-14
<b>I. Food Group</b>	<b>7.2</b>	<b>127</b>	<b>127</b>	<b>28</b>	<b>17</b>	<b>20</b>	<b>37</b>	<b>29</b>	<b>32</b>	<b>50</b>	<b>41</b>
Food & Non-Alcoholic Beverages	6.5	115	115	28	17	20	36	26	27	41	35
Alcoholic Beverages & Tobacco	22.4	6	6	0	0	0	0	2	2	4	4
Restaurant & Hotels	9.2	6	6	0	0	0	1	1	3	5	2
<b>II. Non-Food Group</b>	<b>8.0</b>	<b>348</b>	<b>348</b>	<b>57</b>	<b>79</b>	<b>62</b>	<b>79</b>	<b>121</b>	<b>107</b>	<b>108</b>	<b>83</b>
Clothing & Footwear	9.0	59	59	3	8	3	3	13	23	40	25
Housing, Water, Elect, Gas & other Fuels	8.8	36	36	6	9	3	2	22	18	5	7
Furnishing & Household Equip. Maintenance etc	8.5	69	69	0	1	15	15	37	29	17	24
Health	6.2	39	39	20	19	7	7	5	7	7	6
Transport	5.4	43	43	13	16	11	18	16	6	3	3
Communication	0.1	12	12	2	7	3	3	3	2	4	0
Recreation & Culture	4.1	39	39	8	13	11	17	6	6	14	3
Education	15.3	16	16	1	1	4	3	8	4	3	8
Miscellaneous	6.1	35	35	4	5	5	11	11	12	15	7
<b>Overall</b>	<b>7.7</b>	<b>475</b>	<b>475</b>	<b>85</b>	<b>96</b>	<b>82</b>	<b>116</b>	<b>150</b>	<b>139</b>	<b>158</b>	<b>124</b>

Note: Prices of 12 seasonal items were not reported during the month.

Table A3: Top and Bottom 15 Contributors to CPI Inflation (YoY) in September 2014					
Top 15 Contributors		YoY Change		Weighted Contribution	
Items/ Contributors	Weights	Sep-13	Sep-14		
Ranked by Weighted Contribution					
1	House Rent	21.81	8.19	7.81	17.76
2	Electricity	4.40	0.00	15.82	9.61
3	Potatoes	0.46	14.95	99.71	7.64
4	Milk Fresh	6.68	6.88	6.92	7.46
5	Education	3.94	8.20	15.28	7.05
6	Cigarette	1.39	14.58	22.60	4.82
7	Transport Services	2.70	3.45	11.14	4.38
8	Cotton Cloth	1.73	15.72	14.63	3.21
9	Fresh Fruits	1.86	-7.08	12.05	3.05
10	Meat	2.43	4.69	6.49	2.53
11	Fresh Vegetable	1.71	8.14	8.75	2.43
12	Beverages	1.20	10.17	11.54	1.83
13	Ready Made Food	1.23	12.04	9.17	1.76
14	Sugar	1.04	0.72	12.26	1.75
15	Household Servant	1.04	9.95	11.68	1.73
Total		53.64			77.02
Bottom 15 Contributors					
1	Tea	0.84	25.97	-17.61	-2.64
2	Onion	0.52	26.13	-9.42	-0.98
3	Footwear	1.55	18.56	-3.07	-0.57
4	Motor Fuel	3.03	-5.43	-0.48	-0.19
5	Wheat	0.35	24.31	-0.50	-0.03
6	Besan	0.15	-26.91	-1.04	-0.02
7	Gur	0.02	23.16	-3.15	-0.01
8	Kerosene Oil	0.01	7.29	-3.54	0.00
9	Gas	1.58	7.05	0.00	0.00
10	Postal Services	0.07	25.93	0.17	0.00
11	Medical Equipment	0.01	7.48	6.03	0.01
12	Mustard Oil	0.10	-1.71	0.88	0.01
13	Blades	0.03	6.10	2.59	0.01
14	Beans	0.03	12.42	3.83	0.02
15	Betel Leaves & Nuts	0.02	6.85	6.61	0.02
Total		8.29			-4.38

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

<u>Top 15 Contributors</u>		<u>MoM Change</u>			Weighted Contribution
Items/ Contributors	Weights	Aug-14	Sep-14		
Ranked by Weighted Contribution					
1	Transport Services	2.70	0.00	8.52	69.75
2	Tomatoes	0.43	1.13	33.88	35.34
3	Sugar	1.04	2.02	6.33	19.38
4	Milk Fresh	6.68	0.17	0.45	10.50
5	Meat	2.43	1.03	0.66	5.52
6	Household Servant	1.04	1.06	1.63	5.39
7	Onion	0.52	8.93	2.19	4.11
8	Ready Made Food	1.23	0.26	0.90	3.77
9	Tailoring	0.88	0.85	1.14	3.69
10	Tea	0.84	-0.10	1.42	3.51
11	Education	3.94	0.06	0.25	2.70
12	Household Textile	0.65	0.38	1.12	2.08
13	Wheat Flour	4.16	3.51	0.15	2.02
14	Ready Made Garment	0.97	0.47	0.57	1.68
15	Drug Medicine	1.27	0.01	0.64	1.68
Total		28.80			171.13
<u>Bottom 15 Contributors</u>					
1	Chicken	1.36	1.19	-11.41	-44.79
2	Fresh Fruits	1.86	-17.54	-4.17	-25.07
3	Potatoes	0.46	3.13	-2.35	-7.47
4	Fresh Vegetable	1.71	12.55	-0.89	-5.47
5	Motor Fuel	3.03	0.01	-0.55	-4.50
6	Vegetable Ghee	2.07	0.01	-0.72	-3.34
7	Pulse Moong	0.23	-4.70	-2.73	-2.62
8	Fish	0.30	-2.24	-0.77	-0.71
9	Pulse Gram	0.24	0.25	-0.03	-0.02
10	Kerosene Oil	0.01	0.24	-0.14	0.00
11	Gas	1.58	0.00	0.00	0.00
12	Electricity	4.40	0.00	0.00	0.00
13	Water Supply	0.50	0.00	0.00	0.00
14	News Papers	0.19	0.00	0.00	0.00
15	Blades	0.03	0.00	0.00	0.00
Total		17.96			-93.99

Table A3.2: Top Fifteen Contributors to CPI Inflation (YoY) in September 2014					
Items/ Contributors		Weights	YoY Change		Weighted Contribution
			Sep-13	Sep-14	
A. Ranked by Percentage Change					
1	Potatoes	0.46	14.95	99.71	7.64
2	Motor Vehicle Tax	0.11	1.13	36.71	0.44
3	Cigarette	1.39	14.58	22.60	4.82
4	Pulse Moong	0.23	4.60	19.70	0.76
5	Pulse Mash (Washed)	0.21	-3.44	19.04	0.53
6	Honey	0.04	7.92	16.13	0.13
7	Electricity	4.40	0.00	15.82	9.61
8	Education	3.94	8.20	15.28	7.05
9	Cotton Cloth	1.73	15.72	14.63	3.21
10	Pulse Masoor	0.27	10.20	14.33	0.43
11	Milk Powder	0.11	7.77	14.22	0.22
12	Condiments	0.27	3.24	14.08	0.58
13	Sugar	1.04	0.72	12.26	1.75
14	Woolen Readymade Garments	0.40	18.05	12.11	0.66
15	Fresh Fruits	1.86	-7.08	12.05	3.05
Total		16.47			40.88
B. Ranked by Weights					
1	House Rent	21.81	8.19	7.81	17.76
2	Milk Fresh	6.68	6.88	6.92	7.46
3	Electricity	4.40	0.00	15.82	9.61
4	Wheat Flour	4.16	23.56	1.18	0.76
5	Education	3.94	8.20	15.28	7.05
6	Communication & Apparatus	3.15	4.32	0.14	0.04
7	Motor Fuel	3.03	-5.43	-0.48	-0.19
8	Transport Services	2.70	3.45	11.14	4.38
9	Meat	2.43	4.69	6.49	2.53
10	Vegetable Ghee	2.07	-5.03	0.65	0.15
11	Fresh Fruits	1.86	-7.08	12.05	3.05
12	Cooking Oil	1.75	-2.22	0.60	0.12
13	Cotton Cloth	1.73	15.72	14.63	3.21
14	Fresh Vegetable	1.71	8.14	8.75	2.43
15	Rice	1.58	12.30	2.31	0.49
Total		63.03			58.85
Note: Weighted contribution is estimated by multiplying the weights by the price change of an item; this is then reported as a share in YoY change in CPI, which is 7.7 percent in September, 2014.					



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

A. Ranked by Weighted Contribution (2017) in September 2017					
Items/ Contributors		Weights	YoY Change		Weighted Contribution
			Sep-13	Sep-14	
A. Ranked by Weighted Contribution					
1	Potatoes	0.46	14.95	99.71	7.64
2	Milk Fresh	6.68	6.88	6.92	7.46
3	Cigarette	1.39	14.58	22.60	4.82
4	Fresh Fruits	1.86	-7.08	12.05	3.05
5	Meat	2.43	4.69	6.49	2.53
6	Fresh Vegetable	1.71	8.14	8.75	2.43
7	Beverages	1.20	10.17	11.54	1.83
8	Ready Made Food	1.23	12.04	9.17	1.76
9	Sugar	1.04	0.72	12.26	1.75
10	Bakery & Confectionary	1.16	12.07	7.19	1.12
Total		19.16			34.38
B. Ranked by Percentage Change					
1	Potatoes	0.46	14.95	99.71	7.64
2	Cigarette	1.39	14.58	22.60	4.82
3	Pulse Moong	0.23	4.60	19.70	0.76
4	Pulse Mash (Washed)	0.21	-3.44	19.04	0.53
5	Honey	0.04	7.92	16.13	0.13
6	Pulse Masoor	0.27	10.20	14.33	0.43
7	Milk Powder	0.11	7.77	14.22	0.22
8	Condiments	0.27	3.24	14.08	0.58
9	Sugar	1.04	0.72	12.26	1.75
10	Fresh Fruits	1.86	-7.08	12.05	3.05
Total		5.90			19.91
C. Ranked by Weights					
1	Milk Fresh	6.68	6.88	6.92	7.46
2	Wheat Flour	4.16	23.56	1.18	0.76
3	Meat	2.43	4.69	6.49	2.53
4	Vegetable Ghee	2.07	-5.03	0.65	0.15
5	Fresh Fruits	1.86	-7.08	12.05	3.05
6	Cooking Oil	1.75	-2.22	0.60	0.12
7	Fresh Vegetable	1.71	8.14	8.75	2.43
8	Rice	1.58	12.30	2.31	0.49
9	Cigarette	1.39	14.58	22.60	4.82
10	Chicken	1.36	12.56	3.90	0.64
Total		25.01			22.45

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 7.2 percent in September, 2014.

<b>Table A3.4: Top Ten Contributors to CPI Non-food Inflation (YoY) in September 2014</b>					
<b>Items/ Contributors</b>		<b>Weights</b>	<b>YoY Change</b>		<b>Weighted Contribution</b>
			<b>Sep-13</b>	<b>Sep-14</b>	
<b>A. Ranked by Weighted Contribution</b>					
1	House Rent	21.81	8.19	7.81	17.76
2	Electricity	4.40	0.00	15.82	9.61
3	Education	3.94	8.20	15.28	7.05
4	Transport Services	2.70	3.45	11.14	4.38
5	Cotton Cloth	1.73	15.72	14.63	3.21
6	Household Servant	1.04	9.95	11.68	1.73
7	Tailoring	0.88	15.46	11.21	1.62
8	Personal Care	1.49	6.75	8.06	1.59
9	Ready Made Garment	0.97	12.85	11.13	1.46
10	Woolen Cloth	0.88	11.04	9.59	1.23
<b>Total</b>		<b>39.86</b>			<b>49.66</b>
<b>B. Ranked by Percentage Change</b>					
1	Motor Vehicle Tax	0.11	1.13	36.71	0.44
2	Electricity	4.40	0.00	15.82	9.61
3	Education	3.94	8.20	15.28	7.05
4	Cotton Cloth	1.73	15.72	14.63	3.21
5	Woolen Readymade Garments	0.40	18.05	12.11	0.66
6	Household Servant	1.04	9.95	11.68	1.73
7	Tailoring	0.88	15.46	11.21	1.62
8	Transport Services	2.70	3.45	11.14	4.38
9	Ready Made Garment	0.97	12.85	11.13	1.46
10	Hosiery	0.51	11.74	11.02	0.79
<b>Total</b>		<b>16.69</b>			<b>30.95</b>
<b>C. Ranked by Weights</b>					
1	House Rent	21.81	8.19	7.81	17.76
2	Electricity	4.40	0.00	15.82	9.61
3	Education	3.94	8.20	15.28	7.05
4	Communication & Apparatus	3.15	4.32	0.14	0.04
5	Motor Fuel	3.03	-5.43	-0.48	-0.19
6	Transport Services	2.70	3.45	11.14	4.38
7	Cotton Cloth	1.73	15.72	14.63	3.21
8	Gas	1.58	7.05	0.00	0.00
9	Footwear	1.55	18.56	-3.07	-0.57
10	Personal Care	1.49	6.75	8.06	1.59
<b>Total</b>		<b>45.39</b>			<b>42.90</b>
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 8.0 percent in September, 2014.					

**Table A4: Distribution of Price Changes (YoY) - Selected CPI Items: September 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	Tea Lipton Yellow Label 200 Gm, Tapal Danedar Tea 200 Gm, Chillies Green, Groundnuts (With Shell), Onion	Spinach, Cucumber (Kheera), Rice Basmati Sup. Qty., Mineral Water Nestle 1.5 Litre, Cornflakes Fauji 225 Gm., Rooh Afza, Tomatoes	Cloves Loose Av.Qlty, Turai, Suji, Biscuit-Bakery (Loose), Milk Powder Loose/Packed, Tomato Ketchup Ahmed/Mitchells, Maida	Potatoes, Ginger, Coconut Dry Av.Qlty., Coriander Seed (Loose), Lemon, Bananas, Pepper Black National, Bottlegourd, Salt Powdered (National/Shan), Cold Drink (Standard Size), Pulse Moong (Washed)
Alcoholic Beverages & Tobacco			Betel Nuts, Betel Leaves	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	Pullover Ladies Oxford/Bon, Shoe Polish Charges Avg, Tailoring Coat-Pant Suit	Tailoring Charges Pant (Men), Washing Ch. (Kamiz-Shalwar), Heavy Wt Suiting Law.Pur Av. Qty, Socks Nylon (Pakistani), Vest For Men Av.Qlty.	Lawn Printed Gul Ahmed/AI Karam, Secondhand Winter Jacket, Brassier Sup. Qty, Brassier Av.Qlty, Frock W/Wear Girls, Pullover (Gents) Others Av.Qlty, Handkerchief Avg. Qty Pak, Shirting Av.Qlty., Second-Hand Coat For Men, Tailoring Suit (Female)
Housing, Water, Elect, Gas & other Fuels	Kerosene Oil, Elect. Charges Upto 50 Units, Elect. Charges 01 - 100 Units, Gas Chrg Over 100 - 200 Mmbtu	Water Charges Per House, Electrician Wage Rate(P/Day)	Mason (Raj) Wage Rate, Synthetic Enemal Robialac, Synthetic Enemal ICI, Carpenter Wage Rate, Unskilled Labour Wage Rat	Elect. Charges 301 - 1000 Units, Elect. Charges 101 - 300 Units, Elect. Charges Overall/ Combined, Elect. Charges Above 1000 Units, Timber Shesham Log, Cement Blocks (6"X8"X12"), Electrician Wage Rate(P/Pnt)
Furnishing & Household Equip. Maintenance etc	Surf Excel 400 Gms Poly Bag	S. Steel Plate Avg. Qty, Tissu Paper Perfumed 100, Washing Powder 1000 Grm (Express), Ceiling Fan 56" Super Qty, Carpet Plain Av. Qty	Dinner Set Plastic 72 Pcs, Gas Burner Double, Lota Plastic (Med Size) Avg. Qty, Bulb Philips 100-Watt, Boot Polish Liquid (Cherry)	Finis 500 Ml, Cleanser Powder Vim 1000 Gms, Robin Blue (35 Gms), Match Box (Small), Boot Polish Cherry/Kiwi 50 Ml, Chair Shesham Wood, Chair Plastic (Chairman) Av. Qty, Bed Sheet Double With Two Pillow Cover
Health	Polyfax Eye Ointment, Flagyl Tab. 200 Mg., Betnovate-N Ointment 5 Gm, Calcium Syrup Sandoz	Sugar Test (Random/Fasting), Galxos-D (450 Gm), Saniplast (1 Putty), Thermometer China, Septran Tablets, Blood Test (Cp) Charges	Urine Test (Dr) Charges, Hydryllin Syrup 120 Ml., Glycerin Small Bottle, Jouhar Joshanda, Cotton Bandage 2" - 4", ECG Charges	Amoxil Capsule 250 Mg., Renitec Tab. 5 Mg., Daonil Tab. 5 Mg., Betnesol Eye Drops, Calpol Syrup 60 Ml., Doctor (MBBS) Clinic Fee
Transport	Gas Cylinder S. Size (L.P.G), Minibus Fare Min.Within City, High Speed Diesel HSD, Bus Fare Min (Within City)	Air Fare Economy Class., Tyre Car W/O Tube, CNG, Car Suzuki 800 CC (W/O. Ac), Motor Cycle Service Charges, Bicycle With Tyres & Tube	Minibus Fare Max.Within City, Suzuki Fare Maximum Within City, Tyre Car With Tube General, Car Service Charges, Taxi 4 Seater Fare	Suzuki Fare Min.Within City, Car Tax For 800 CC To 1300 CC, 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. Qty, Internet Charges	
Recreation & Culture	Maths Book Cals V (T.B.Board), Cinema A/C High Class, Video Game Sega 16 Byte, T.V. 20" Colored Sony, V.C.P. Panasonic/LG/National	Photostat Paper 70 Gm, Exercise Book Lined 80/10, Eng. Book Ist. Yr Complete Set, Tape Recorder Cassette (Blank), Pencil Goldfish/Deer, Pen Ink Dollor 57 Ml Bottle	Fountain Pen Hero/Wings/China, Paper Fool or X, Urdu Book Class IX/X (T.B.Board) Scape (27"X17"), English Book Class V1, Ball Pen (Local), Urdu Book Class V (T.B.Board)	Weekly "Akhbar-e-Jahan", Maths Book Class IX
Education	MBA Tuition Fee	Coaching Fee For Class IX/ X, Coaching Charges For Class XI/ XII Science Group, Pvt Eng.College Fee (Ist Year)	I.T. Tuition Fees, Coaching Charges For Class XI/ XII Commerce Group, Govt. Engg. Coll. Fee Ist Year	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(Ist Year)
Restaurant & Hotels		Chicken Biryani Full/Double	Tea Prepared (Ordinary), Cooked Beef (Av. Hotel), Cooked Dal (Av. Hotel)	Cooked Mutton (Av. Hotel), Bread Tandoori St. Size
Miscellaneous	Silver Tezabi 24 Ct, Gold Tezabi 24 Ct, Toilet Soap Lifebuoy 140 Gms, Toilet Soap Lux 95 Gms	Lipstick S. Miss/Medora, Toothbrush Shield, Toilet Soap Safeguard Bath Size, Hair Color Bigen	Beauty Parlor Hair Style Charges, Wall Clock Quartz Av.Qlty, Trunk Medium Size, Wrist Watch Ladies Citizen	Purse Ladies (Leather) Av. Qty, Shaving Charges, Artificial Jewellery Set, Haircut Charges For Men, Perfume Med. Size Medora/Broche

**Table A5: City- wise CPI Inflation by Income Groups, September 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	-0.7	9.9	-1.5	10.3	0.3	9.4	-0.8	10.6	-1.8	10.9	0.4	10.2
2 Islamabad	-0.4	12.1	-1.2	6.7	0.5	19.4	-0.4	12.3	-1.1	7.3	0.4	18.3
3 Lahore	0.7	9.7	1.2	11.2	0.0	7.4	0.6	10.0	1.1	11.7	0.0	7.8
4 Gujranwala	1.7	7.8	3.0	8.9	0.0	6.2	1.6	7.9	2.9	9.5	0.1	5.9
5 Sialkot	0.0	7.7	0.0	9.4	0.0	5.4	-0.3	7.6	-0.5	9.5	0.0	5.4
6 Faisalabad	0.9	7.8	1.6	5.4	0.0	11.1	0.6	7.9	1.2	5.7	0.0	10.5
7 Multan	0.8	6.3	1.3	6.2	0.2	6.6	0.8	6.5	1.4	6.5	0.2	6.6
8 Sargodha	0.0	7.5	-0.3	8.1	0.4	6.7	0.2	7.4	-0.1	8.0	0.6	6.8
9 Bahawalpur	0.1	7.2	0.1	7.2	0.2	7.3	0.0	7.0	-0.2	7.2	0.2	6.8
10 Karachi	0.2	7.4	0.3	6.6	0.0	8.5	0.2	7.6	0.3	7.2	0.1	8.2
11 Hyderabad	0.3	4.8	0.6	5.2	0.0	4.3	0.3	5.0	0.6	5.4	0.0	4.5
12 Sukkur	-1.0	5.8	-1.7	6.6	-0.1	4.9	-0.9	5.7	-1.5	6.4	-0.1	4.8
13 Larkana	0.0	5.8	-0.1	5.1	0.2	6.6	0.2	6.1	0.1	5.4	0.2	6.9
14 Peshawar	-0.1	7.4	-0.3	7.2	0.2	7.6	-0.1	7.5	-0.4	7.3	0.1	7.8
15 Bannu	0.7	5.7	0.8	5.6	0.4	5.8	0.5	5.9	0.5	6.1	0.4	5.7
16 Quetta	-0.1	5.8	-0.2	6.9	0.0	4.2	-0.1	5.6	-0.2	7.1	0.0	3.9
17 Khuzdar	2.1	7.6	3.5	11.3	0.2	3.2	2.0	7.6	3.6	11.6	0.3	3.3
	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	-0.7	10.7	-1.7	10.9	0.4	10.5	-0.7	10.8	-1.9	11.1	0.4	10.5
2 Islamabad	-0.5	13.4	-1.4	7.7	0.4	19.6	-0.4	15.6	-1.5	8.3	0.5	22.3
3 Lahore	0.6	10.2	1.0	12.1	0.1	7.9	0.5	10.3	0.9	12.4	0.0	8.2
4 Gujranwala	1.5	7.5	2.6	9.3	0.4	5.5	1.3	7.6	2.5	9.5	0.3	5.9
5 Sialkot	-0.5	7.8	-0.9	10.0	-0.1	5.5	-0.6	8.1	-1.1	10.4	-0.1	6.1
6 Faisalabad	0.5	8.5	0.9	6.1	0.1	11.0	0.3	9.0	0.6	6.7	0.0	11.2
7 Multan	0.8	6.6	1.3	6.7	0.3	6.5	0.6	7.1	1.1	6.9	0.2	7.2
8 Sargodha	0.4	7.3	0.1	8.4	0.7	6.4	0.6	7.5	0.3	8.8	0.8	6.5
9 Bahawalpur	0.0	7.0	-0.1	7.3	0.1	6.8	0.0	7.1	-0.2	7.8	0.1	6.5
10 Karachi	0.2	7.9	0.2	7.8	0.1	8.0	0.1	8.2	0.0	8.3	0.2	8.1
11 Hyderabad	0.3	4.9	0.6	5.7	0.0	3.9	0.3	5.4	0.6	6.3	0.0	4.6
12 Sukkur	-0.9	5.2	-1.7	6.4	-0.1	4.0	-0.9	5.4	-1.7	6.5	-0.1	4.5
13 Larkana	0.2	6.2	0.1	5.2	0.3	7.1	0.3	6.8	0.3	5.3	0.3	8.1
14 Peshawar	-0.1	7.3	-0.5	7.4	0.2	7.2	-0.2	7.9	-0.6	7.7	0.1	8.1
15 Bannu	0.5	6.1	0.5	6.5	0.5	5.8	0.2	6.9	0.0	7.1	0.3	6.8
16 Quetta	-0.4	5.2	-0.7	6.7	0.0	3.6	-0.4	5.1	-0.9	6.2	0.0	4.2
17 Khuzdar	1.9	7.2	3.9	11.9	-0.1	2.7	1.7	7.7	4.0	12.5	-0.2	3.7
	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	0.1	10.9	-1.8	11.3	1.0	10.7	-0.2	10.8	-1.8	11.2	1.0	10.5
2 Islamabad	0.6	15.7	-1.4	9.1	1.6	19.4	0.5	15.4	-1.4	8.8	1.9	20.8
3 Lahore	0.3	10.4	0.8	12.4	0.1	9.2	0.4	10.2	0.9	12.2	0.0	8.5
4 Gujranwala	1.0	6.9	2.3	9.6	0.4	5.4	1.3	7.4	2.6	9.5	0.4	5.9
5 Sialkot	-0.7	7.7	-1.5	10.2	-0.3	6.4	-0.5	7.8	-1.1	10.1	-0.1	6.1
6 Faisalabad	0.0	9.4	0.1	6.8	0.0	10.8	0.4	8.7	0.8	6.3	0.0	10.6
7 Multan	0.4	7.1	0.9	6.8	0.2	7.3	0.6	6.9	1.1	6.7	0.2	7.0
8 Sargodha	0.9	8.4	0.7	9.1	1.0	8.1	0.5	7.7	0.2	8.6	0.7	7.2
9 Bahawalpur	-0.1	6.9	-0.5	7.2	0.1	6.8	0.0	7.1	-0.2	7.4	0.1	6.9
10 Karachi	0.3	8.9	0.0	9.4	0.5	8.7	0.2	8.5	0.1	8.6	0.4	8.3
11 Hyderabad	0.1	5.2	0.3	6.7	-0.1	4.4	0.2	5.1	0.5	6.1	0.0	4.4
12 Sukkur	-0.7	5.2	-1.6	6.3	-0.2	4.7	-0.8	5.5	-1.6	6.5	-0.2	4.7
13 Larkana	0.3	7.2	0.4	4.8	0.2	8.3	0.2	6.5	0.1	5.2	0.2	7.4
14 Peshawar	-0.2	7.5	-0.9	7.7	0.2	7.5	-0.2	7.6	-0.6	7.5	0.1	7.6
15 Bannu	0.2	5.5	-0.1	7.7	0.3	4.4	0.4	6.2	0.3	6.8	0.4	5.9
16 Quetta	-0.4	4.8	-1.1	5.4	-0.1	4.5	-0.4	5.2	-0.8	6.2	-0.1	4.4
17 Khuzdar	1.7	5.7	5.3	11.8	-0.2	2.7	1.9	7.5	4.3	12.3	0.2	4.2

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

City	High inflation cities			City	Low inflation cities		
	General	Food	Non-food		General	Food	Non-food
Islamabad	15.4	8.8	20.8	Peshawar	7.6	7.5	7.6
Rawalpindi	10.8	11.2	10.5	Khuzdar	7.5	12.3	4.2
Nawabshah	10.6	6.3	13.5	Gujranwala	7.4	9.5	5.9
Lahore	10.2	12.2	8.5	Abbotabad	7.2	8.8	6.2
Sahiwal	9.6	8.7	10.2	Attock	7.1	8.7	6.0
Mardan	9.5	5.1	12.1	Jehlum	7.1	7.7	6.6
D.G. Khan	9.2	9.0	9.4	Bahawalpur	7.1	7.4	6.9
Faisalabad	8.7	6.3	10.6	Multan	6.9	6.7	7.0
Jhang	8.6	8.6	8.6	Rahim Yar Khan	6.9	5.9	7.6
Karachi	8.5	8.6	8.3	Muzaffargarh	6.8	7.0	6.7
Wazirabad	8.3	9.0	7.8	Larkana	6.5	5.2	7.4
Sialkot	7.8	10.1	6.1	Mingora	6.4	5.4	7.0
Mianwali	7.8	6.7	8.5	Bannu	6.2	6.8	5.9
Sargodha	7.7	8.6	7.2	Sukkur	5.5	6.5	4.7
				Gawadar	5.3	5.4	5.3
				Turbat	5.3	6.0	4.9
				Dadu	5.2	5.3	5.2
				Quetta	5.2	6.2	4.4
				Hyderabad	5.1	6.1	4.4
				Mir Pur Khas	5.1	5.4	4.9
				Dera Mrd.Jamali	5.0	3.3	6.3
				Mithi	5.0	5.2	4.9
				Bahawalnagar	5.0	6.0	4.3
				Vehari	4.9	4.4	5.3
				Loralai&Cantt	4.1	4.7	3.7
				D.I.Khan	4.1	3.1	4.7

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

<b>Table A7: Income Group-wise Inflation ( percent)</b>						
	<b>MoM</b>			<b>YoY</b>		
	<b>Sep-13</b>	<b>Aug-14</b>	<b>Sep-14</b>	<b>Sep-13</b>	<b>Aug-14</b>	<b>Sep-14</b>
<b><u>Up to Rs. 8000</u></b>						
General	-0.4	0.8	0.3	8.5	6.0	6.6
Food	-1.0	1.2	0.2	8.3	5.3	6.6
Non-food	0.5	0.2	0.4	8.6	6.8	6.6
<b><u>Rs. 8001- 12000</u></b>						
General	-0.4	0.6	0.2	8.1	6.0	6.6
Food	-1.2	0.9	0.1	8.1	5.4	6.8
Non-food	0.5	0.2	0.3	8.1	6.6	6.4
<b><u>Rs. 12001- 18000</u></b>						
General	-0.4	0.5	0.2	7.9	7.1	7.8
Food	-1.4	0.8	0.1	7.9	5.5	7.0
Non-food	0.6	0.1	0.4	7.8	8.7	8.5
<b><u>Rs. 18001- 35000</u></b>						
General	-0.4	0.3	0.2	7.7	7.3	7.9
Food	-1.5	0.6	0.0	7.8	5.6	7.3
Non-food	0.6	0.1	0.4	7.6	8.7	8.5
<b><u>Above Rs. 35000</u></b>						
General	-0.2	0.2	0.5	6.8	7.2	7.8
Food	-1.7	0.2	0.0	7.8	5.7	7.4
Non-food	0.6	0.2	0.7	6.4	8.0	8.1
<b><u>All income groups</u></b>						
General	-0.3	0.3	0.4	7.4	7.0	7.7
Food	-1.5	0.6	0.0	7.9	5.6	7.2
Non-food	0.6	0.2	0.6	7.0	8.1	8.0

**Table A8: SPI Item-wise Price Movements**

Sr.No.	Items	Unit	Prices Sep-14	Percentage change	
				YoY	MoM
1	Wheat	10Kg.	350.6	-3.2	-0.2
2	Wheat Flour Bag	10Kg.	404.1	-0.8	0.6
3	Rice Basmati Broken	Kg.	74.3	0.1	0.2
4	Rice Irri-6	Kg.	54.0	0.3	-0.8
5	Bread Plain Med. Size (340-400 Gm.)	Each	40.8	7.9	0.2
6	Beef	Kg.	301.3	7.5	0.9
7	Mutton	Kg.	589.4	6.9	0.6
8	Chicken Live (Farm)	Kg.	138.1	-7.2	-12.9
9	Milk Fresh	Litr	75.6	10.5	0.2
10	Curd	Kg.	89.2	10.8	0.9
11	Milk Powdered Nido	500G	348.8	18.5	0.3
12	Egg Hen (Farm)	Doz.	105.9	7.7	2.7
13	Mustard Oil	Kg.	185.3	0.9	-0.1
14	Cooking Oil (Tin)	2.5Ltr	539.1	0.3	-0.2
15	Veg. Ghee (Tin)	2.5Kg.	511.5	0.2	-0.1
16	Veg. Ghee Loose	Kg.	157.8	0.1	-0.7
17	Bananas	Doz.	78.4	27.8	-12.1
18	Masoor Pulse Washed	Kg.	128.8	14.6	0.1
19	Moong Pulse Washed	Kg.	150.2	22.2	-1.2
20	Mash Pulse Washed	Kg.	157.2	22.2	1.4
21	Gram Pulse Washed	Kg.	73.7	0.3	-0.4
22	Potatoes	Kg.	66.0	90.1	-3.8
23	Onions	Kg.	41.5	-12.0	0.7
24	Tomatoes	Kg.	66.0	2.4	38.2
25	Sugar	Kg.	60.5	12.4	4.6
26	Gur	Kg.	84.3	-6.2	2.6
27	Salt Powdered Loose (Lahori)	Kg.	9.9	8.4	0.5
28	Red Chilies Powder Loose	Kg.	253.9	17.1	1.0
29	Garlic	Kg.	133.9	7.2	-1.5
30	Tea (Yellow Label )	200Gm.	125.8	-26.9	1.3
31	Cooked Beef Plate	Each	82.1	8.8	0.2
32	Cooked Dal Plate	Each	47.6	5.7	0.2
33	Tea Prepared (Sada)	Cup	18.6	13.8	0.6
34	Cigarettes K-2 (20'S)	20'S	45.2	20.2	0.2
35	Long Cloth (Coarse Latha)	Mtr.	199.4	16.5	0.0
36	Shirting	Mtr.	156.8	11.2	0.4
37	Lawn	Mtr.	239.2	26.0	0.0
38	Georgette (Voil Printed)	Mtr.	123.1	11.6	1.2
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	117.5	-5.8	-0.9
45	Firewood	40Kg	554.0	7.1	-0.1
46	Energy Savor 14 Watts	Each	165.3	2.4	0.1
47	Washing Soap (200-250 Gm.)	Cake	24.4	5.7	0.5
48	Match Box	Each	1.7	27.9	0.0
49	Petrol	Litr	108.1	-2.5	-1.2
50	Diesel	Litr	109.9	-3.5	-0.8
51	L.P.G.( 11 Kg Cylinder.)	Each	1446.1	-5.5	7.8
52	Tele. Local Call	Call	3.9	0.0	0.0
53	Bath Soap Lifebuoy (Standard)	Cake	36.0	0.2	0.0
<b>Maximum</b>				<b>90.1</b>	<b>38.2</b>
<b>Median</b>				<b>5.7</b>	<b>0.1</b>
<b>Minimum</b>				<b>-26.9</b>	<b>-12.9</b>

<b>Table A9: Distribution of Price Changes (YoY) - WPI Items: September 2014</b>				
<b>Groups</b>	<b>Decrease or no change</b>	<b>Subdued increase (Greater than 0% but less than 5%)</b>	<b>Moderate increase (5% but less than 10%)</b>	<b>Double digit increase (10% or more)</b>
<b>Agriculture Forestry &amp; Fishery Products</b>	Fibre Crops, Millet/Bajra, Wheat, Fish Live Fresh or Chilled, Sugar Crops	Fuel Wood in Logs, Vegetables, Rice, Poultry, Maize, Hides and Fur Skins-Raw	Pulses, Other Oil Seeds, Raw Animal Material/Wool, Eggs	Edible Roots/Potatoes, Stimulant and Spice Crops, Cotton Seeds, Dry Fruits, Sorghum/Jowar, Unmanufactured Tobacco, Milk from Bovine Animals, Fresh Fruits
<b>Ores &amp; Minerals, Electricity Gas &amp; Water</b>	Natural Gas Liquefied, Coal Not Agglomerated	Electrical Energy		Salt & Pure Sodium Chloride
<b>Food Products, Beverages and Tobacco, Textiles, Apparel and Leather Products</b>	Coffee and Tea, Other Leather N.E.C, Cotton Yarn, Nylon Yarn, Other Food Products, Footwear, Blended Yarn, Spices, Dried Fruits & Nuts, Vegetable Ghee, Wheat Flour, Other Cereal Flour, Sugar Confectionary, Chocolate	Ice Cream, Woven Fabrics, Fruit Juices, Mineral Water, Vegetables & Fruit Juices, Vegetable Oil Refined	Meat of Animals, Silk and Rayon Fabrics, Sugar Refined, Dairy Products N.E.C, Cotton Fabrics	Leather Without Hairs, Woolen Carpets, Milk and Cream in Solid Form, Beverages, Blankets, Ready Made Garments, Tobacco Products, Oil Cakes, Other Fabrics, Processed Liquid Milk, Quilts, Hosiery Products, Towels, Bed Sheets, Synthetic Carpets
<b>Other Transportable Goods except Metal Products, Machinery and Equipments</b>	Diesel Oil, Furnace Oil, Motor Sprit, Soaps & Detergent, Kerosene Oil, Coke, Matches	Medicines, Mobil Oil, Bed Foams, Plastic Products, Cement, Printing Paper, Glass Sheets, Auto Tyres, Fertilizers	Bricks Blocks and Tiles, Other Glass Articles	Dying Materials, Insecticides, Pesticides, Ceramics and Sanitary, Chemicals, Timber, Paints & Varnishes, Hard Board
<b>Metal Product Machinery &amp; Equipment</b>	Pig Iron, Engines and Motors, Vacuum Pumps, Concrete Mixer, Radio and Television	Motor Vehicles, Chuff Cutter, Steel Products, Motor Cycles, Lighting Equipments, Bicycles	Electrical Wires, Air Conditioners, Refrige,Wash& Sew Mach,Iron,Fan, Steel Bars & Sheets	Lathe Machines, Tractors, Pipe Fittings, Cultivators



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

Items and specification	Weights	Index		
		Sep-13	Aug-14	Sep-14
<b>General</b>	<b>100.00</b>	<b>185.18</b>	<b>198.70</b>	<b>199.40</b>
<b>Food &amp; Non-Alcoholic Beverages.</b>	<b>34.83</b>	<b>208.29</b>	<b>221.77</b>	<b>221.77</b>
1 Wheat	0.35	210.43	208.97	209.37
2 Wheat Flour	4.16	219.75	222.00	222.34
3 Wheat Product	0.10	200.79	218.37	218.67
4 Besan	0.15	172.67	169.93	170.88
5 Rice	1.58	191.49	195.30	195.91
6 Cereals	0.16	225.08	237.79	238.08
7 Bakery & Confectionary	1.16	192.20	205.44	206.01
8 Nimco	0.46	212.27	234.50	235.78
9 Meat	2.43	227.90	241.09	242.68
10 Chicken	1.36	172.37	202.16	179.10
11 Fish	0.30	204.54	216.83	215.15
12 Milk Fresh	6.68	229.63	244.41	245.51
13 Milk Product	0.63	224.25	240.29	241.27
14 Milk Powder	0.11	196.38	224.27	224.30
15 Egg	0.46	200.85	211.80	214.36
16 Mustard Oil	0.10	157.73	159.06	159.12
17 Cooking Oil	1.75	161.00	161.90	161.97
18 Vegetable Ghee	2.07	155.71	157.85	156.72
19 Dry Fruits	0.25	219.52	236.61	237.15
20 Fresh Fruits	1.86	192.94	225.59	216.18
21 Pulse Masoor	0.27	158.34	180.35	181.03
22 Pulse Moong	0.23	233.56	287.40	279.56
23 Pulse Mash (Washed)	0.21	187.31	218.09	222.97
24 Pulse Gram	0.24	165.50	167.40	167.35
25 Gram Whole	0.16	176.72	179.10	179.24
26 Beans	0.03	233.29	241.77	242.22
27 Potatoes	0.46	236.99	484.66	473.29
28 Onion	0.52	283.29	251.11	256.60
29 Tomatoes	0.43	217.79	169.12	226.41
30 Fresh Vegetable	1.71	230.51	252.93	250.69
31 Sugar	1.04	194.50	205.35	218.34
32 Gur	0.02	275.82	259.98	267.14
33 Honey	0.04	257.91	292.72	299.51
34 Sweet Meet	0.25	217.22	229.38	229.84
35 Beverages	1.20	187.70	209.18	209.36
36 Jam, Tomato Ketchup & Pickle	0.25	188.19	197.56	198.62
37 Condiments	0.27	219.19	249.01	250.05
38 Spices	0.54	214.85	229.07	230.32
39 Tea	0.84	254.67	206.89	209.82
<b>Alcoholic Beverages, Tobacco</b>	<b>1.41</b>	<b>217.85</b>	<b>266.59</b>	<b>266.59</b>
40 Cigarette	1.39	218.30	267.63	267.63
41 Betel Leaves & Nuts	0.02	190.83	203.31	203.45
<b>Clothing &amp; Footwear</b>	<b>7.57</b>	<b>193.59</b>	<b>210.19</b>	<b>210.97</b>
42 Cotton Cloth	1.73	180.48	206.81	206.89
43 Woolen Cloth	0.88	208.95	228.48	228.99
44 Ready Made Garment	0.97	191.11	211.17	212.38
45 Woolen Readymade Garments	0.40	194.99	218.34	218.60
46 Hosiery	0.51	200.13	221.44	222.19
47 Dopatta	0.44	209.40	226.08	226.62
48 Cleaning & Laundering	0.21	212.30	230.67	233.42

<b>Table A10: Consumer Price Index Numbers by Major Groups and Composite Commodities</b>				
Items and specification	Weights	Index		
		Sep-13	Aug-14	Sep-14
49 Tailoring	0.88	232.70	255.86	258.78
50 Footwear	1.55	169.25	163.89	164.05
<b>Housing,Water,Elect,Gas &amp; Other Fuel</b>	<b>29.41</b>	<b>157.75</b>	<b>171.65</b>	<b>171.70</b>
51 House Rent	21.81	148.24	159.82	159.82
52 Construction Input Item	0.56	217.40	234.79	236.34
53 Construction Wage Rate	0.33	188.19	201.60	202.74
54 Water Supply	0.50	145.80	149.92	149.92
55 Electricity	4.40	196.37	227.44	227.44
56 Gas	1.58	143.81	143.81	143.81
57 Kerosene Oil	0.01	288.89	279.05	278.65
58 Fire Wood Whole	0.23	249.90	265.16	265.66
<b>Furnished H.Hold Equip.&amp; Maint. Etc</b>	<b>4.21</b>	<b>190.99</b>	<b>205.48</b>	<b>207.21</b>
59 Furniture	0.33	180.68	196.29	198.64
60 Household Textile	0.65	186.39	200.71	202.95
61 Household Equipment	0.59	163.50	171.16	171.62
62 Utensils	0.32	189.05	206.97	208.66
63 Plastic Products	0.25	186.86	196.98	197.49
64 Washing Soap & Detergent	0.79	210.04	221.65	221.85
65 Sewing Needle & Dry Cell	0.15	168.44	182.20	182.30
66 Household Servant	1.04	202.20	222.19	225.81
67 Marriage Hall Charges	0.08	204.59	225.21	226.93
<b>Health</b>	<b>2.19</b>	<b>164.23</b>	<b>173.42</b>	<b>174.47</b>
68 Drug Medicine	1.27	142.09	145.60	146.53
69 Medical Equipment	0.01	208.73	220.56	221.31
70 Doctor (MBBS) Clinic Fee	0.59	212.47	234.15	235.89
71 Medical Test	0.32	161.78	170.34	170.57
<b>Transport</b>	<b>7.20</b>	<b>194.54</b>	<b>198.70</b>	<b>205.10</b>
72 Motor Vehicle	0.66	159.74	163.48	163.72
73 Motor Vehicle Accessories	0.24	219.28	229.13	229.28
74 Motor Fuel	3.03	190.34	190.47	189.43
75 Mechanical Service	0.46	195.60	206.40	207.03
76 Motor Vehicle Tax	0.11	153.74	210.18	210.18
77 Transport Services	2.70	207.03	212.03	230.09
<b>Communication</b>	<b>3.22</b>	<b>129.66</b>	<b>129.83</b>	<b>129.85</b>
78 Postal Services	0.07	215.89	216.02	216.26
79 Communication & Apparatus	3.15	127.85	128.02	128.03
<b>Recreation &amp; Culture</b>	<b>2.02</b>	<b>181.87</b>	<b>189.02</b>	<b>189.34</b>
80 Recreation & Culture	0.86	124.90	127.46	127.81
81 Text Books	0.57	266.88	280.60	280.89
82 News Papers	0.19	170.49	175.42	175.42
83 Stationery	0.40	189.17	197.98	198.41
<b>Education</b>	<b>3.94</b>	<b>166.49</b>	<b>191.45</b>	<b>191.93</b>
84 Education	3.94	166.49	191.45	191.93
<b>Restaurants And Hotels</b>	<b>1.23</b>	<b>221.68</b>	<b>239.85</b>	<b>242.00</b>
85 Ready Made Food	1.23	221.68	239.85	242.00
<b>Miscellaneous Goods And Services</b>	<b>2.76</b>	<b>206.86</b>	<b>218.63</b>	<b>219.39</b>
86 Personal Care	1.49	188.30	202.70	203.47
87 Cosmetics	0.39	169.63	183.29	183.51
88 Blades	0.03	180.16	184.82	184.82
89 Personal Equipments	0.84	257.70	264.24	265.25

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

Items and Specifications	Index		
	Sep-13	Aug-14	Sep-14
<b>General</b>	<b>209.33</b>	<b>214.73</b>	<b>215.06</b>
<b>Agriculture Forestry &amp; Fishery</b>	<b>218.32</b>	<b>224.73</b>	<b>225.48</b>
1 Wheat	221.91	214.37	214.19
2 Maize	193.51	193.63	195.66
3 Rice	178.15	180.50	181.27
4 Sorghum/Jowar	266.44	328.11	307.35
5 Millet/Bajra	187.35	174.19	173.72
6 Vegetables	314.40	304.25	322.71
7 Fresh Fruits	220.14	256.65	244.99
8 Dry Fruits	188.16	217.97	218.98
9 Cotton Seeds	165.07	216.43	192.17
10 Other Oil Seeds	175.36	189.39	190.46
11 Edible Roots/ Potatoes	231.30	550.88	504.54
12 Stimulant And Spice Crops	254.77	429.22	404.43
13 Pulses	176.48	194.38	193.89
14 Sugar Crops	267.92	267.92	267.92
15 Fibre Crops	219.53	175.37	182.68
16 Unmanufactured Tobacco	181.07	206.81	207.00
17 Poultry	177.47	212.06	180.11
18 Milk From Bovine Animals	222.52	243.95	248.75
19 Eggs	205.51	218.87	217.31
20 Raw Animal Material/Wool	153.55	161.50	162.90
21 Hides And Fur Skins, Raw	145.03	145.14	145.38
22 Fuel Wood In Logs	234.96	243.47	243.47
23 Fishes Live Fresh Or Chilled	249.62	243.89	244.41
<b>Ores/Minerals, Gas &amp; Elect.</b>	<b>240.04</b>	<b>242.91</b>	<b>242.99</b>
24 Coal Not Agglomerated	223.53	223.53	223.53
25 Natural Gas Liquefied	204.58	202.79	202.94
26 Salt & Pure Sodium Chloride	217.04	248.50	248.50
27 Electrical Energy	279.61	287.44	287.44
<b>Food, Beverages, Tobacco, Textiles</b>	<b>199.08</b>	<b>207.15</b>	<b>207.86</b>
28 Meat Of Animals	233.93	252.65	256.74
29 Vegetables & Fruit Juices	192.05	194.12	194.12
30 Dried Fruits & Nuts	223.21	219.98	219.98
31 Fruit Juices	165.08	171.34	171.34
32 Vegetable Oil Refined	161.04	163.56	162.58
33 Vegetable Ghee	140.69	139.94	139.10
34 Oil Cakes	176.21	212.95	208.10
35 Processed Liquid Milk	205.54	231.82	234.27
36 Milk And Cream In Solid Form	179.40	214.15	219.41
37 Ice Cream	209.53	219.91	219.91
38 Dairy Products N.E.C	216.63	235.94	235.94
39 Wheat Flour	202.67	201.98	200.80
40 Other Cereal Flour	138.44	136.37	137.97
41 Sugar Refined	212.34	220.01	231.31
42 Chocolate	99.19	99.19	99.19
43 Sugar Confectionary	102.28	102.28	102.28
44 Coffee And Tea	230.54	181.34	183.60
45 Spices	195.85	191.50	191.60
46 Other Food Products	316.68	294.38	296.10
47 Mineral Water	180.22	185.63	185.63
48 Beverages	139.63	169.18	169.40
49 Tobacco Products	242.41	290.52	290.52
50 Cotton Yarn	222.40	195.72	192.90
51 Nylon Yarn	182.19	163.67	164.84
52 Blended Yarn	200.64	193.92	193.92
53 Woven Fabrics	217.16	226.82	226.82
54 Cotton Fabrics	187.43	196.81	196.81
55 Other Fabrics	175.74	203.01	203.01

<b>Table A11: Wholesale Price Index Numbers by Major Groups and Composite Commodities</b>				
		<b>Index</b>		
<b>Items and Specifications</b>		<b>Sep-13</b>	<b>Aug-14</b>	<b>Sep-14</b>
56 Silk And Rayon Fabrics		160.08	175.35	175.35
57 Towels		218.47	244.18	246.16
58 Blankets		185.21	219.66	223.55
59 Bed Sheets		217.78	242.12	242.12
60 Quilts		156.32	172.42	177.63
61 Woolen Carpets		106.55	132.14	132.14
62 Synthetic Carpets		114.41	125.42	126.27
63 Hosiery Products		185.30	206.13	208.91
64 Ready Made Garments		152.13	180.12	183.14
65 Leather With Out Hairs		140.50	216.45	212.86
66 Other Leather N.E.C		263.79	230.78	210.44
67 Footwear's		139.49	134.22	134.22
<b>Other Transportable Goods</b>		<b>213.44</b>	<b>215.17</b>	<b>214.53</b>
68 Timber		161.45	184.69	188.95
69 Printing Paper		164.84	169.34	169.34
70 Hard Board		208.33	229.17	229.17
71 Coke		163.45	163.45	163.45
72 Motor Sprit		184.38	182.40	180.02
73 Diesel Oil		270.32	260.69	256.53
74 Kerosene Oil		282.64	288.01	281.74
75 Furnace Oil		179.02	169.47	171.21
76 Mobil Oil		192.70	201.17	201.17
77 Chemicals		165.49	194.21	195.25
78 Dying Materials		104.26	143.77	143.77
79 Fertilizers		269.45	270.28	271.20
80 Pesticides		213.45	270.02	266.71
81 Insecticides		129.93	181.05	178.63
82 Paints & Varnishes		247.70	276.16	279.37
83 Medicines		138.77	144.21	145.03
84 Soaps & Detergent		178.79	175.81	176.33
85 Auto Tyres		185.57	188.21	188.28
86 Plastic Products		199.06	205.01	206.32
87 Glass Sheets		204.55	209.86	209.86
88 Other Glass Articles		206.09	218.27	218.27
89 Ceramics And Sanitary		166.88	200.91	207.26
90 Bricks Blocks And Tiles		188.17	202.38	203.25
91 Cement		201.55	207.44	207.79
92 Bed Foams		145.33	150.83	150.83
93 Matches		143.20	143.20	143.20
<b>Metal Product Machinery &amp; Equip</b>		<b>166.39</b>	<b>172.17</b>	<b>172.76</b>
94 Pig Iron		128.97	128.97	128.97
95 Steel Bars & Sheets		141.14	149.75	151.35
96 Pipe Fittings		150.29	175.34	191.63
97 Steel Products		168.46	170.24	172.77
98 Engines And Motors		109.07	109.07	109.07
99 Vacuum Pumps		115.39	115.39	115.39
100 Air Conditioners		179.78	195.53	195.53
101 Cultivators		191.51	226.90	226.90
102 Chuff Cutter		144.94	149.20	149.20
103 Tractors		161.96	214.54	214.54
104 Lathe Machines		148.86	208.81	208.81
105 Concrete Mixer		138.83	138.83	138.83
106 Refrige,Wash& Sew Mach, Iron,Fan		180.51	195.93	196.04
107 Electrical Wires		168.13	179.18	184.79
108 Lighting Equipments		162.27	164.95	164.95
109 Radio And Television		126.49	126.49	126.49
110 Motor Vehicles		174.21	182.59	182.59
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	Mar	164.98	183.46	153.90	182.20	180.41	183.34	180.79
	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

\*: all groups combined

<b>Table A13: International Commodity Prices/ Indices</b>				
	<b>Jun-14</b>	<b>Jul-14</b>	<b>Aug-14</b>	<b>Sep-14</b>
<b>Energy</b>				
Crude Oil (US\$ per barrel) *	108.4	105.2	100.1	95.9
IMF Energy Index (2005 = 100)	197.2	190.8	183.4	176.4
WB Energy Index (2010 = 100) @	131.5	127.0	121.2	116.7
<b>Food</b>				
Rice (\$/MT)	414.7	428.0	440.4	436.5
Wheat (\$/MT)	306.5	280.4	263.4	243.7
Sugar (US cent/ pound)	18.2	18.7	17.7	16.5
Palm Oil (\$/MT)	758.5	752.9	677.9	657.0
Soybean Oil (\$/MT)	871.6	813.9	745.8	711.7
<b>Non-Food Non-Energy</b>				
Cotton Outlook 'A' Index #	90.9	83.8	74.0	73.4
IMF Metal Price Index (2005 = 100)	161.8	168.8	168.2	161.4
Copper (\$/MT)	6,821.1	7,113.4	7,001.8	6,872.2
Aluminum (\$/MT)	1,839.0	1,948.3	2,030.5	1,990.4
Iron Ore (\$ cents/dry MT)	92.7	96.0	92.6	82.3
Tin (\$/MT)	22,762.0	22,424.0	22,231.1	21,090.5
Nickle (\$/MT)	18,628.8	19,117.7	18,600.2	18,034.8
Zinc (\$/MT)	2,128.1	2,310.6	2,327.0	2,294.6
Lead (\$/MT)	2,106.9	2,193.2	2,236.8	2,117.2
Uranium (\$/MT)	28.2	28.4	30.6	34.2
DAP (\$/MT)	461.5	499.4	505.0	481.6
Urea (\$/MT)	297.9	301.7	321.9	325.6
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**

<b>Original Series</b>				
<b>Period</b>	<b>FY12</b>	<b>FY13</b>	<b>FY14</b>	<b>FY15</b>
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	
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	
<b>Seasonally Adjusted Series</b>				
Jul	154.45	169.22	182.82	197.52
Aug	155.84	169.91	184.39	197.33
Sep	157.54	171.42	184.09	198.24
Oct	159.43	171.67	187.29	
Nov	160.24	171.28	189.85	
Dec	160.89	173.67	189.59	
Jan	162.84	175.97	189.89	
Feb	164.49	176.67	190.70	
Mar	166.03	176.97	192.09	
Apr	167.92	177.62	193.92	
May	170.61	179.45	194.45	
Jun	170.81	180.87	195.76	

<b>Table 15. CPI Food Data Series Original and Seasonally Adjusted</b>				
<b>Original Series</b>				
<b>Period</b>	<b>FY12</b>	<b>FY13</b>	<b>FY14</b>	<b>FY15</b>
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	
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	
<b>Seasonally Adjusted Series</b>				
Jul	174.02	189.68	206.85	221.22
Aug	174.74	189.55	208.97	220.61
Sep	177.42	190.87	205.94	220.74
Oct	179.80	190.30	209.03	
Nov	180.49	189.96	214.56	
Dec	180.57	194.47	212.48	
Jan	182.81	197.56	211.90	
Feb	184.38	198.08	213.12	
Mar	185.80	197.60	215.90	
Apr	188.05	198.32	217.98	
May	189.59	202.14	217.14	
Jun	189.51	204.54	219.60	



<b>Table 16: CPI Monthly &amp; Average Seasonal Factors</b>					
<b>Period</b>	<b>FY12</b>	<b>FY13</b>	<b>FY14</b>	<b>FY15</b>	<b>Average</b>
Jul	100.17	100.21	100.42	100.27	100.27
Aug	100.67	100.70	100.72	100.70	100.69
Sep	100.61	100.60	100.59	100.59	100.60
Oct	100.85	100.83	100.82		100.83
Nov	100.63	100.67	100.71		100.67
Dec	99.52	99.51	99.52		99.52
Jan	99.84	99.84	99.85		99.84
Feb	99.13	99.12	99.11		99.12
Mar	99.37	99.35	99.34		99.35
Apr	100.05	100.07	100.07		100.06
May	99.60	99.55	99.54		99.56
Jun	99.52	99.48	99.48		99.49

<b>Table 17: CPI Food Monthly &amp; Average Seasonal Factors</b>					
<b>Period</b>	<b>FY12</b>	<b>FY13</b>	<b>FY14</b>	<b>FY15</b>	<b>Average</b>
Jul	100.45	100.55	100.65	100.72	100.59
Aug	101.48	101.54	101.58	101.56	101.54
Sep	101.55	101.54	101.53	101.53	101.54
Oct	101.82	101.77	101.71		101.77
Nov	101.53	101.62	101.68		101.61
Dec	99.25	99.23	99.25		99.24
Jan	99.50	99.50	99.49		99.50
Feb	98.00	97.97	97.94		97.97
Mar	98.74	98.71	98.71		98.72
Apr	99.67	99.71	99.70		99.69
May	99.03	98.94	98.90		98.96
Jun	98.86	98.81	98.81		98.83

<b>Table 18: CPI Month-on-Month % Change Original &amp; Seasonally Adjusted</b>				
<b>Original Series</b>				
<b>Period</b>	<b>FY12</b>	<b>FY13</b>	<b>FY14</b>	<b>FY15</b>
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	
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	
<b>Seasonally Adjusted Series</b>				
Jul		-0.93	1.07	0.90
Aug	0.90	0.41	0.86	-0.10
Sep	1.09	0.89	-0.16	0.46
Oct	1.20	0.15	1.74	
Nov	0.50	-0.23	1.37	
Dec	0.41	1.40	-0.14	
Jan	1.21	1.33	0.16	
Feb	1.01	0.39	0.42	
Mar	0.93	0.17	0.73	
Apr	1.14	0.37	0.95	
May	1.60	1.03	0.27	
Jun	0.12	0.79	0.67	

<b>Table 19: CPI Food Month-on-Month % Change Original &amp; Seasonally Adjusted</b>				
<b>Original Series</b>				
<b>Period</b>	<b>FY12</b>	<b>FY13</b>	<b>FY14</b>	<b>FY15</b>
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	
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	
<b>Seasonally Adjusted Series</b>				
Jul		0.09	1.13	0.74
Aug	0.41	-0.07	1.02	-0.27
Sep	1.53	0.70	-1.45	0.06
Oct	1.34	-0.30	1.50	
Nov	0.38	-0.18	2.65	
Dec	0.04	2.37	-0.97	
Jan	1.24	1.59	-0.27	
Feb	0.86	0.26	0.58	
Mar	0.77	-0.24	1.30	
Apr	1.21	0.36	0.96	
May	0.82	1.93	-0.39	
Jun	-0.04	1.19	1.13	

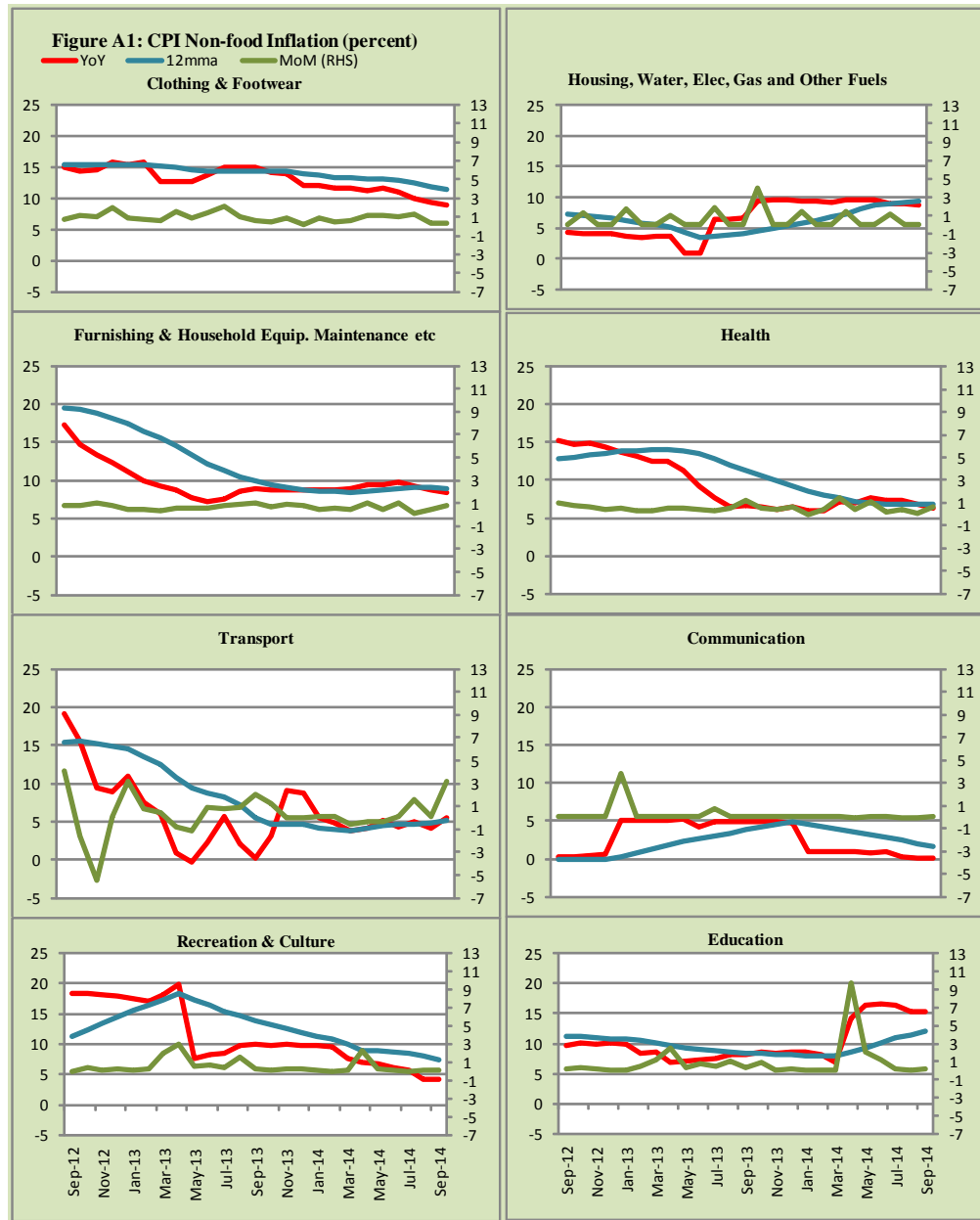
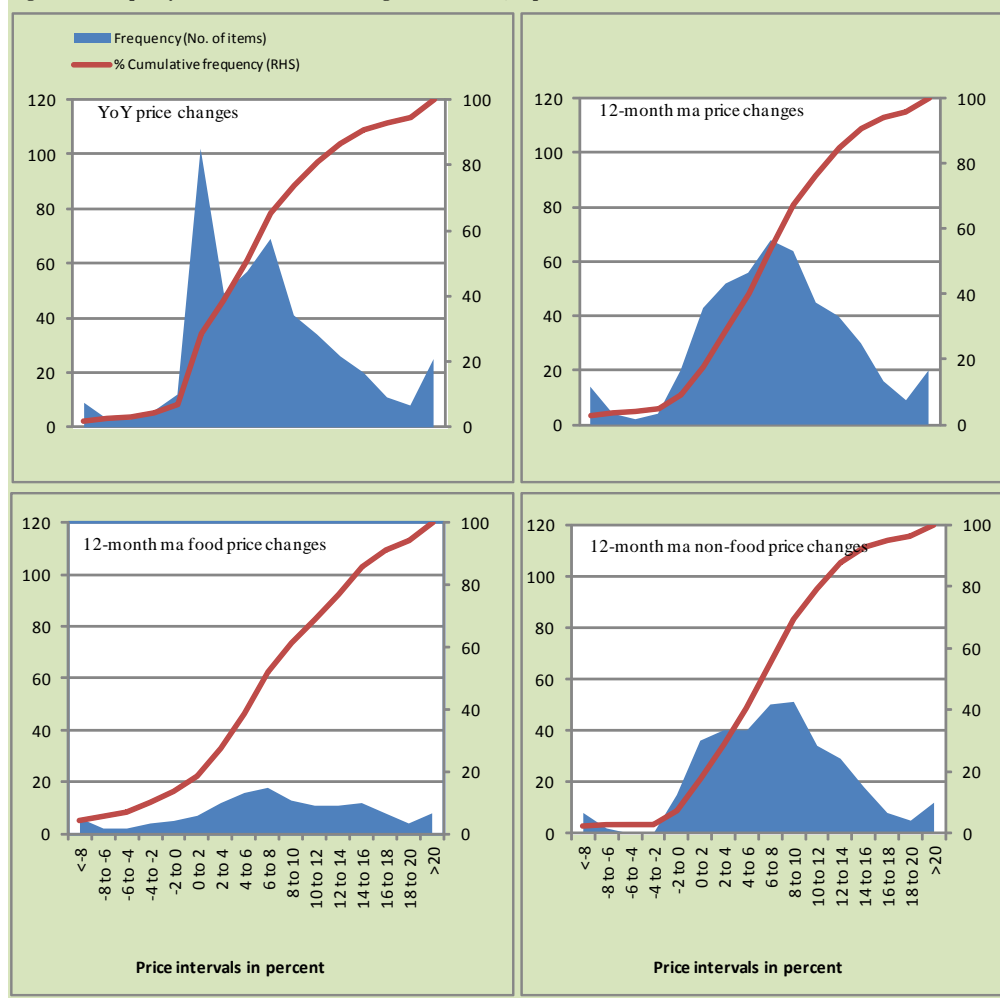


Figure A2: Frequency Distribution of Price Changes of CPI Items, September 2014



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

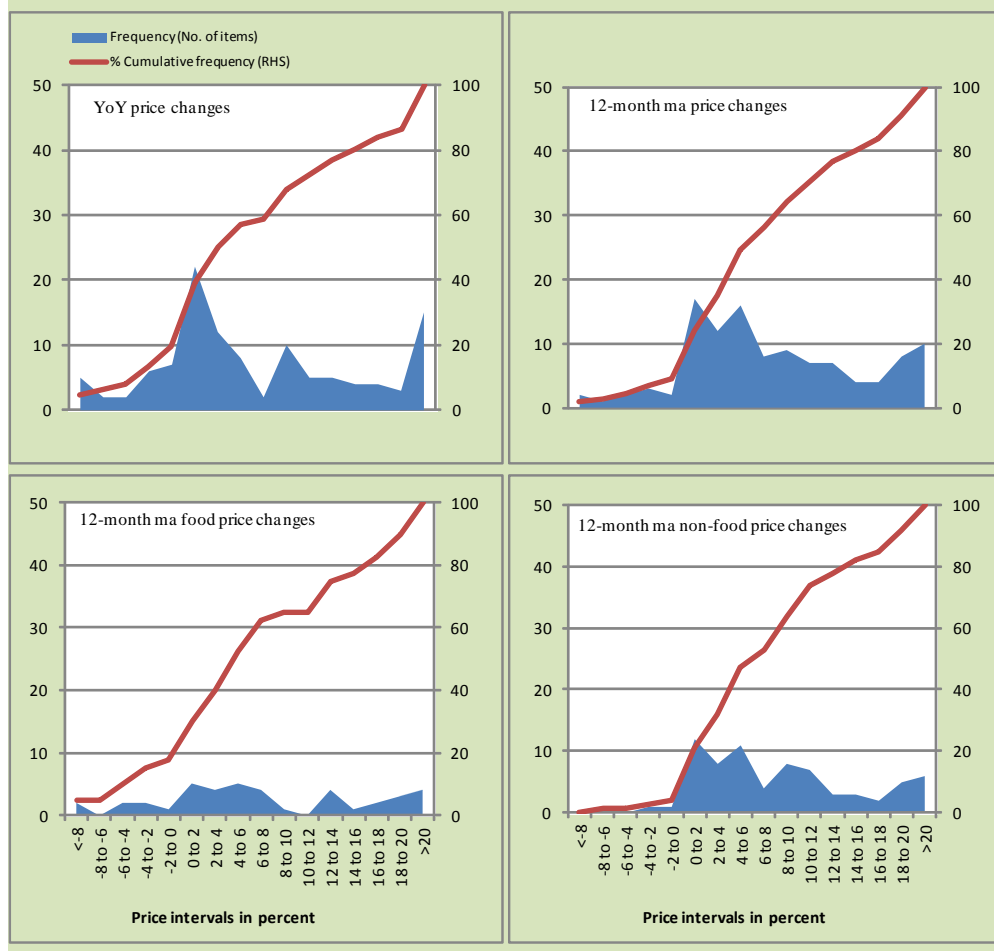
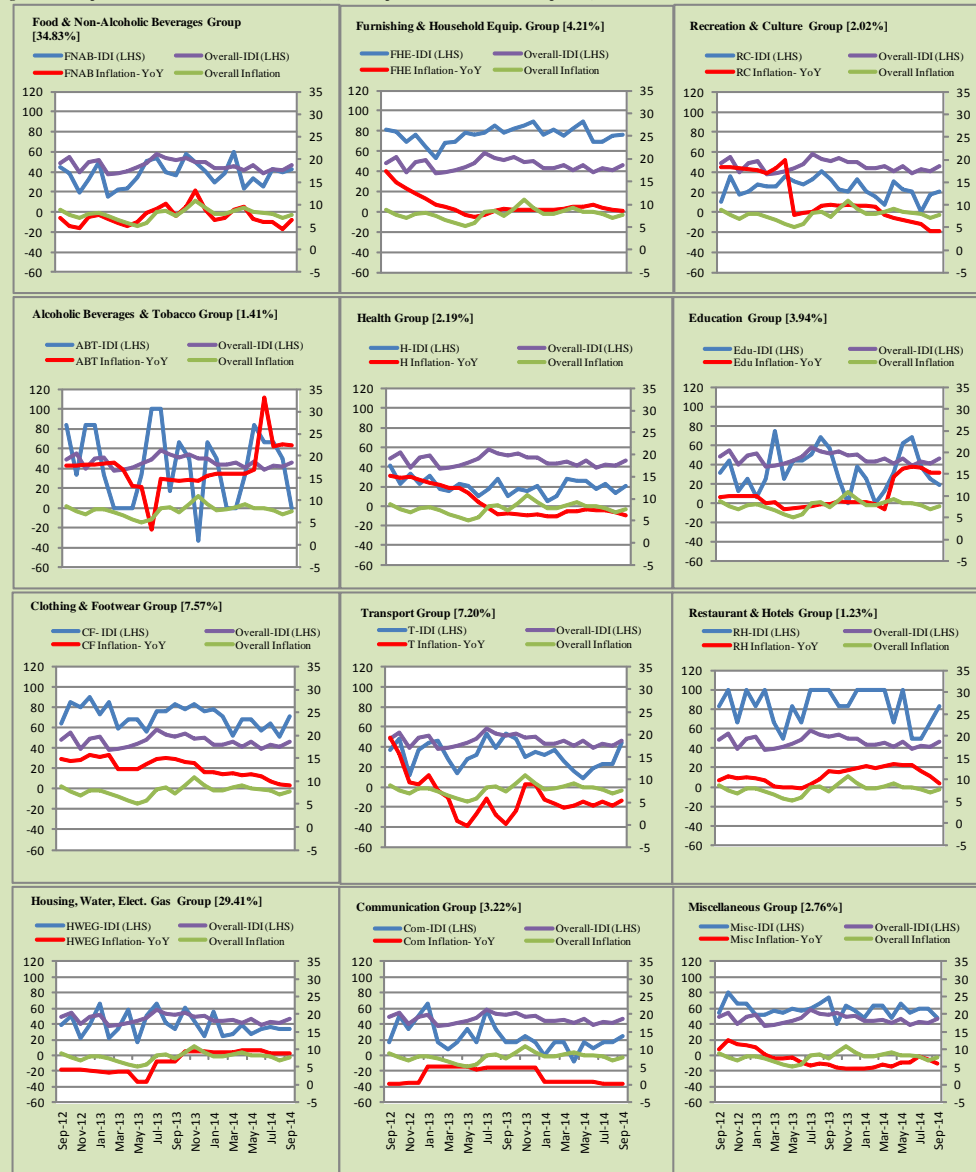


Figure A4: Group-wise/ Overall Inflation Diffusion Index (IDI) and respective/ overall YoY Inflation (percent)



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  $i^{\text{th}}$  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  $i^{\text{th}}$  item

$\pi_{it}$  : Inflation of  $i^{\text{th}}$  item

$\pi_t$  : Overall inflation

10. Annualized rate of inflation (based on a month-on-month rate  $\pi$ ) 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 constant<sup>1</sup>.

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 analysis<sup>2</sup> suggests that IDI is a leading indicator for Pakistan’s YoY inflation.

<sup>1</sup> 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.

<sup>2</sup> Formal test shows one way ‘Granger’ causality from IDI to YoY inflation.