

# **Inflation Monitor**

**April 2015**



**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 2.1 percent on year-on-year basis in April 2015 as compared to 2.5 percent in the previous month and 9.2 percent in the corresponding month of last year.
2. CPI inflation on month-on-month basis is recorded at 1.3 percent in April 2015 as compared to 0.2 percent in the previous month and 1.7 percent during the corresponding month of last year. Seasonally adjusted month-on-month CPI inflation is recorded at 0.5 percent in April 2015 compared to the previous month.
3. Core inflation (trimmed) on year-on-year basis decreased to 3.1 percent in April 2015 as compared to 3.8 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) recorded at 0.6 percent in April 2015 as compared to almost zero inflation recorded in the previous and 0.9 percent in the corresponding month of last year.
5. Non-food, non-energy inflation measured by CPI Core (NFNE) on year-on-year basis decreased to 5.4 percent in April 2015 as compared to 5.9 percent in the previous month. It was 8.5 percent in the corresponding month of last year.
6. Core NFNE inflation on month-on-month basis increased to 1.4 percent in April 2015 as compared to negligible inflation in the previous month. A 1.9 percent increase in Core NFNE index was observed in April 2014.
7. WPI inflation on year-on-year basis increased to -2.9 percent in April 2015 when compared to -3.7 percent a month earlier. During April 2014, WPI inflation was recorded at 7.0%.

8. WPI inflation on month-on-month basis recorded at 0.9 percent in April 2015 as compared to negligible inflation in the previous and 0.1 percent in the corresponding month of last year.
9. SPI inflation on year-on-year basis increased to -1.6 percent in April 2015 as compared to -2.4 percent in the previous month. It was 10.3 percent in the corresponding month of last year.
10. SPI inflation on month-on-month basis recorded at 0.7 percent in April 2015 as compared to almost a zero inflation in the previous month and -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 April 2015 are described below:

- Core inflation based on new measure RSC on year-on-year basis is recorded at 5.6 percent in April 2015 compared to 6.2 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 1.1 percent in April 2015 compared to 0.1 percent in the previous month and 1.7 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
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
Nov-14	4.0	-0.5	2.1	-0.4	5.4	-0.6	6.9	-0.5	5.3	0.1	7.2	-0.3	0.0	-1.0	-0.1	-1.0
Dec-14	4.3	-1.0	3.4	-2.1	4.9	-0.2	6.7	0.1	5.2	0.0	7.0	0.2	-0.9	-1.9	0.5	-1.3
Jan-15	3.9	0.1	3.0	-0.5	4.5	0.5	6.4	0.7	4.8	0.3	6.7	0.5	-2.4	-1.0	0.4	-0.9
Feb-15	3.2	-0.9	2.1	-1.8	4.0	-0.3	6.2	0.0	4.2	-0.2	6.4	0.0	-3.4	-1.1	-0.7	-1.4
Mar-15	2.5	0.2	0.5	0.5	3.9	0.0	5.9	0.0	3.8	0.0	6.2	0.1	-3.7	0.0	-2.4	0.0
Apr-15	2.1	1.3	0.0	1.4	3.7	1.3	5.4	1.4	3.1	0.6	5.6	1.1	-2.9	0.9	-1.6	0.7
* NFNE is Non-food non-energy      ** Relatively Stable Component of CPI      *** SPI for all income groups combined																

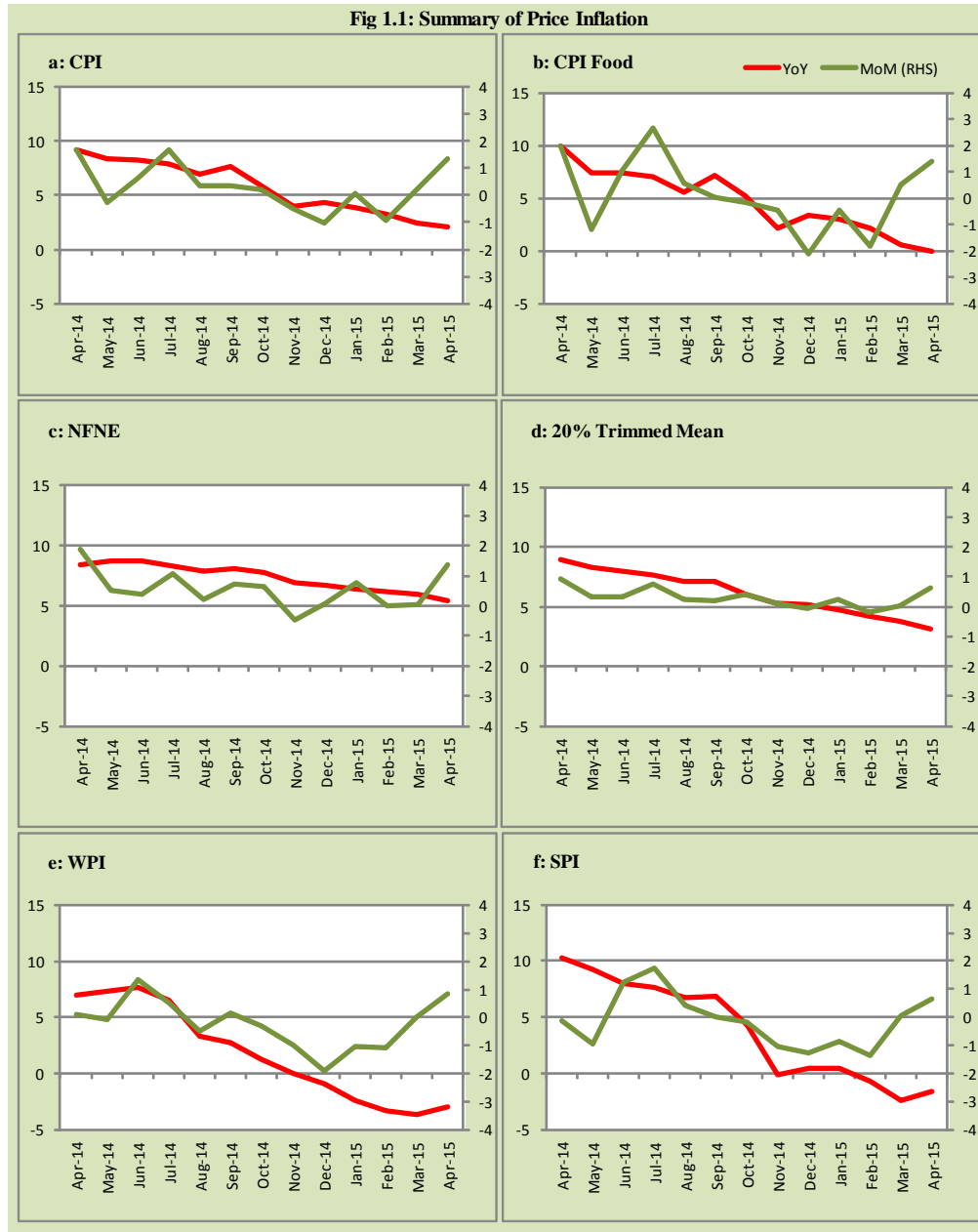
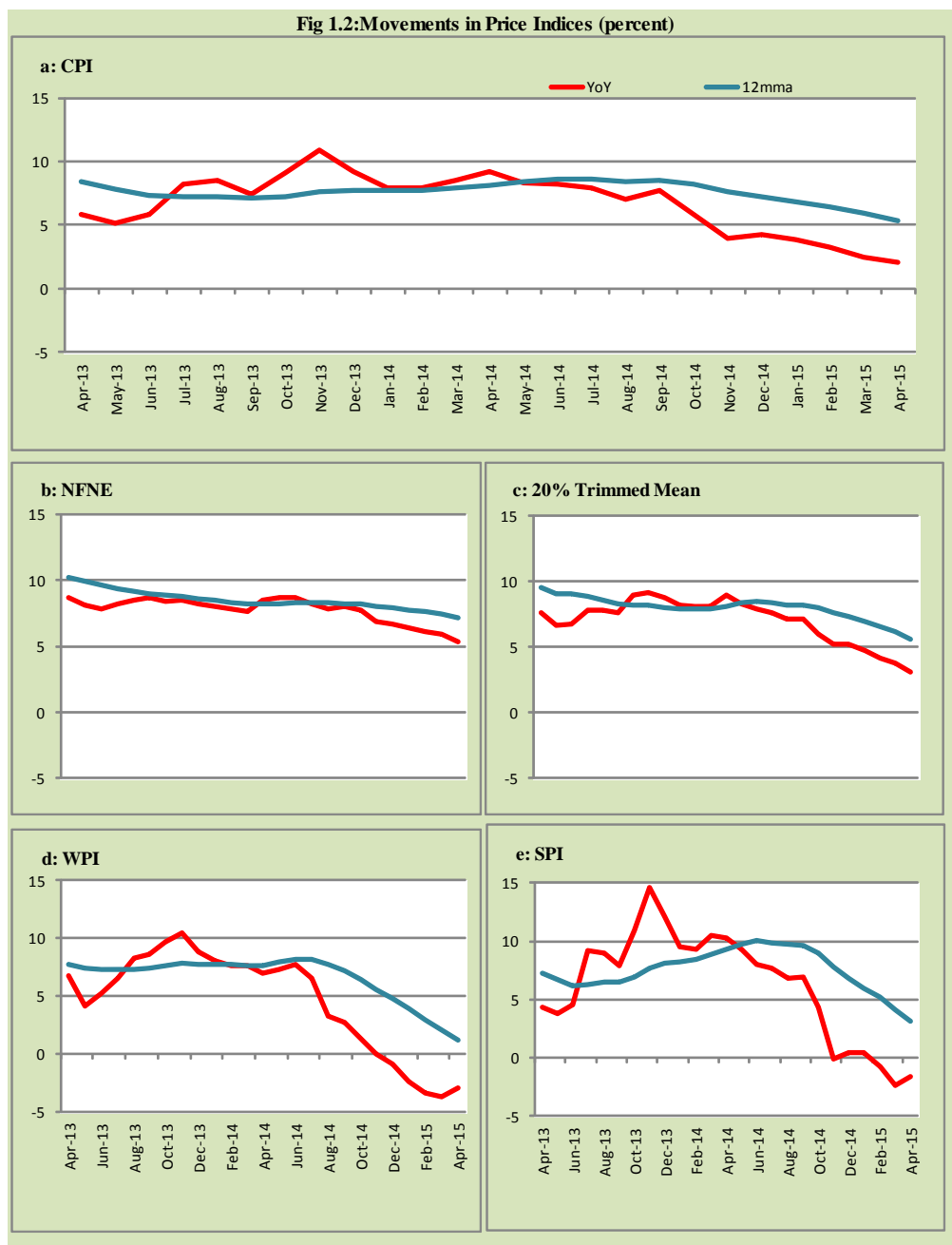




Fig 1.2: Movements in Price Indices (percent)



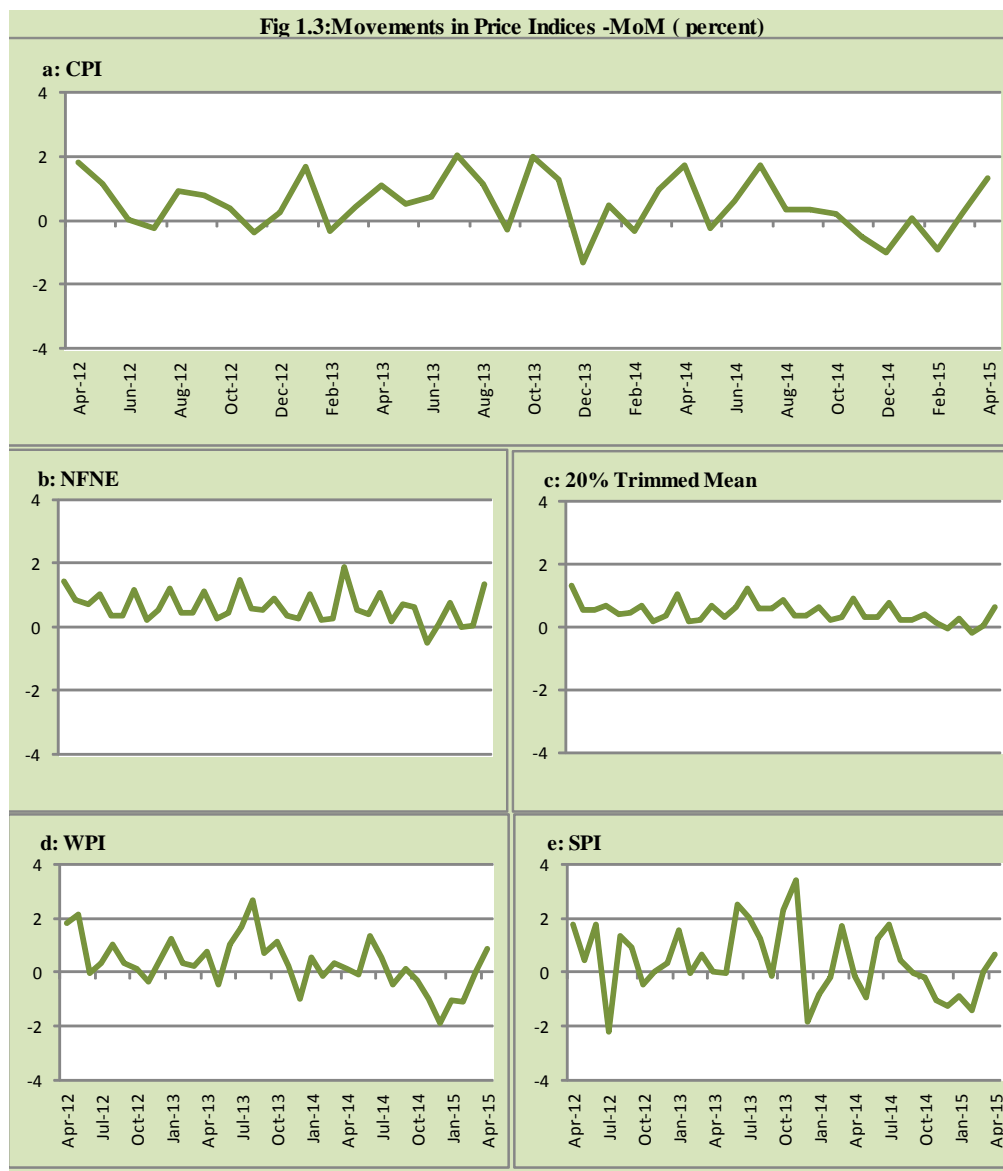
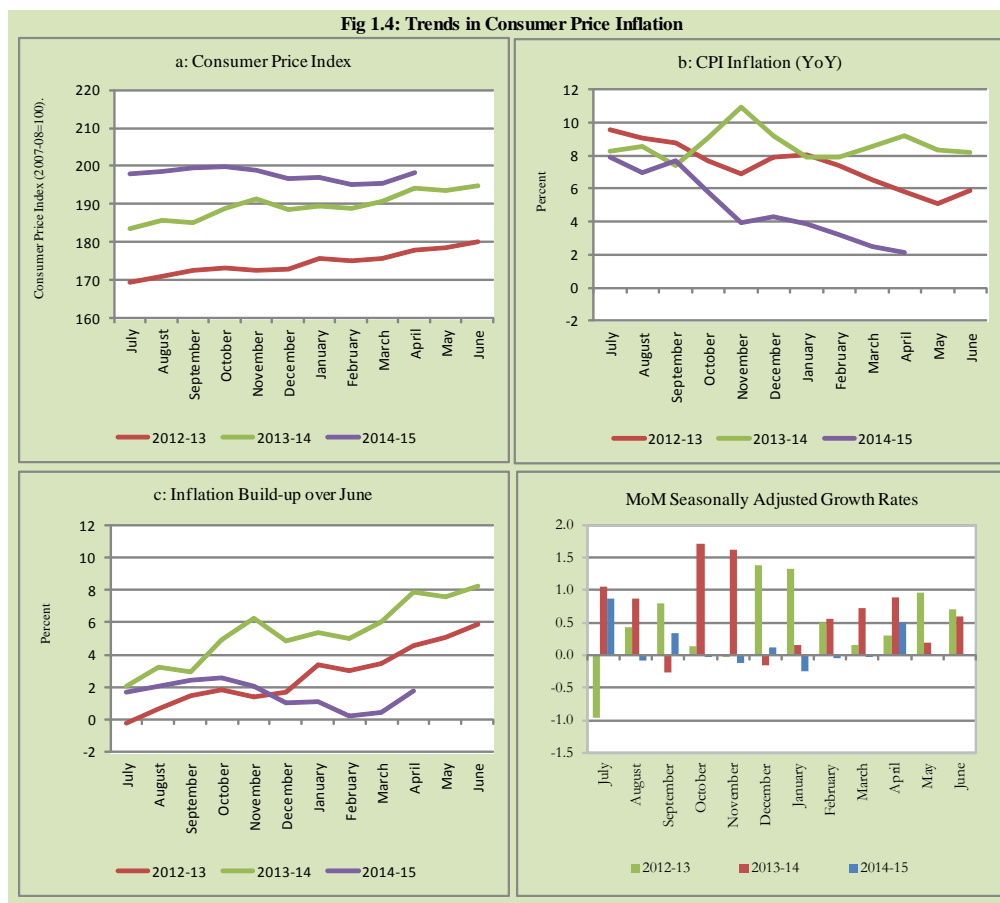


Fig 1.4: Trends in Consumer Price Inflation



## 2. City wise Inflation

CPI Inflation on year-on-year basis in federal and provincial capitals of Pakistan showed mixed trend during April 2015. Among these five cities, the lowest inflation was observed in Quetta at -0.1 percent while the highest inflation was observed in Islamabad at 4.0 percent (Table A6 of annexure-A).

<b>Table 2.1 City-wise Inflation of Selected Cities (percent)</b>						
	<b>Apr-14</b>		<b>Mar-15</b>		<b>Apr-15</b>	
	<b>MoM</b>	<b>YoY</b>	<b>MoM</b>	<b>YoY</b>	<b>MoM</b>	<b>YoY</b>
<b>Overall CPI</b>	1.7	9.2	0.2	2.5	1.3	2.1
Islamabad	2.6	15.5	0.2	5.5	1.1	4.0
Karachi	1.4	9.6	0.3	3.8	1.1	3.5
Lahore	2.9	11.2	0.6	4.9	1.2	3.1
Peshawar	2.7	11.9	0.2	3.6	0.8	1.6
Quetta	1.2	8.9	-0.2	-0.2	1.2	-0.1

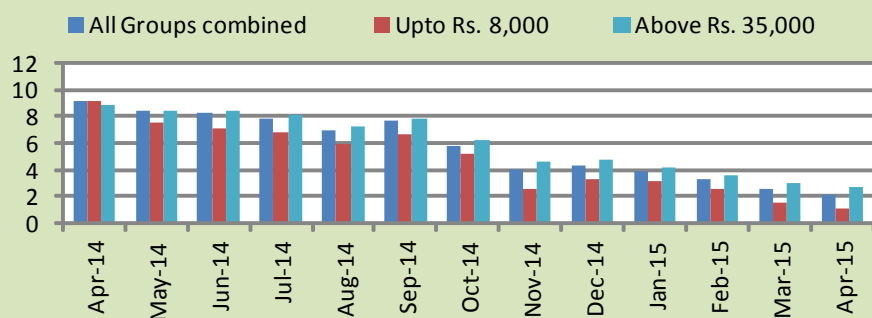
### **3. Income Group wise Inflation**

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

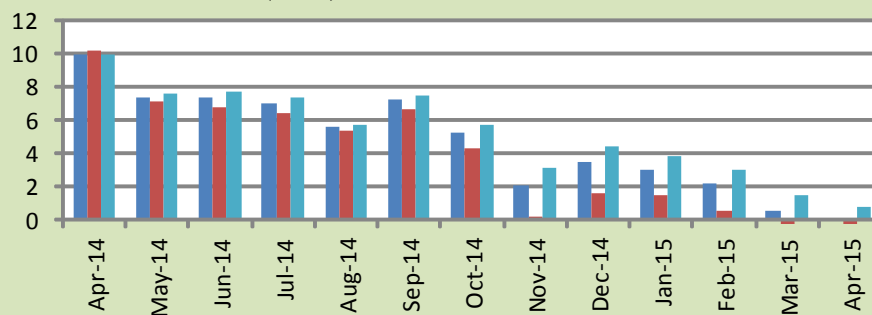
<b>Table 3.1 Income Group- wise Inflation (YoY)</b>									
<b>Income Groups</b>	<b>General</b>			<b>Food</b>			<b>Non-food</b>		
	<b>Apr-14</b>	<b>Mar-15</b>	<b>Apr-15</b>	<b>Apr-14</b>	<b>Mar-15</b>	<b>Apr-15</b>	<b>Apr-14</b>	<b>Mar-15</b>	<b>Apr-15</b>
<b>All Groups Combined</b>	9.2	2.5	2.1	9.9	0.5	0.0	8.7	3.9	3.7
Up to Rs. 8,000	9.1	1.5	1.0	10.1	-1.1	-1.6	7.8	4.9	4.4
Rs. 8,001- 12,000	8.8	1.8	1.3	10.0	-0.6	-1.1	7.6	4.4	4.0
Rs. 12,001- 18,000	9.8	2.1	1.7	9.9	0.0	-0.5	9.6	4.2	3.9
Rs. 18,001- 35,000	9.7	2.2	1.8	9.9	0.5	0.0	9.6	3.7	3.4
Above Rs. 35,000	8.8	3.0	2.6	9.9	1.4	0.8	8.3	3.8	3.6

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

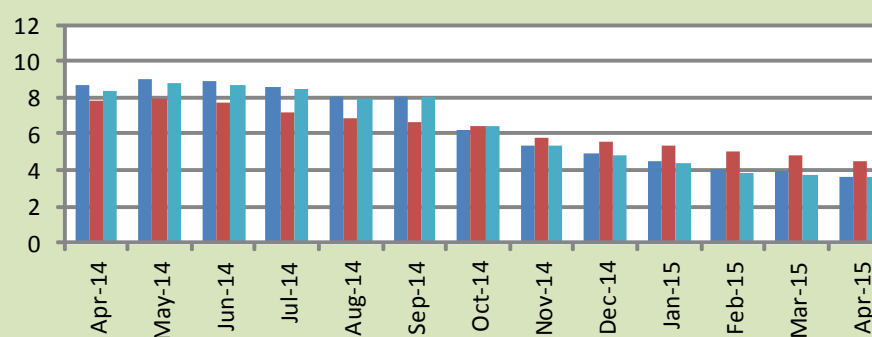
**a: CPI Overall Inflation (YoY)**



**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 -0.64 percent during April 2015 from 8.95 percent in March 2015. It was 44.99 percent in April 2014.

The weighted contribution of non-food group increased to 100.64 percent in April 2015 from 91.05 percent in March 2015.

<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>
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
Nov-14	22.63	16.74	37.56	-6.13	12.74	16.45
Dec-14	33.26	16.16	34.82	-10.53	11.70	14.59
Jan-15	32.11	16.52	38.34	-15.65	12.84	15.84
Feb-15	26.97	18.93	45.83	-25.78	15.39	18.66
Mar-15	8.95	23.54	58.95	-31.96	19.90	20.62
Apr-15	-0.64	26.66	59.33	-33.22	23.40	24.46

## 5. Inflation Diffusion Index

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

	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15
General	41.2	46.5	38.9	42.8	41.2	46.2	30.9	33.7	25.4	23.0	18.2	14.9	25.8
Food & Non-Alcoholic Beverages	23.9	33.6	25.7	43.0	39.8	43.0	38.3	35.7	2.7	18.6	-3.6	1.8	0.0
Alcoholic Beverages & Tobacco	33.3	83.3	66.7	66.7	50.0	0.0	33.3	33.3	-33.3	-33.3	33.3	-16.7	16.7
Clothing & Footwear	67.8	67.8	57.6	64.4	50.8	71.2	32.2	67.8	55.9	49.2	23.7	35.6	49.2
Housing, Water, Elect, Gas & other Fuels	38.9	27.8	33.3	36.1	33.3	33.3	30.6	25.0	11.1	27.8	0.0	11.1	38.9
Furnishing & Household Equip. Maintenance etc	82.6	89.9	69.6	69.6	75.4	76.8	43.5	65.2	56.5	56.5	59.4	33.3	52.2
Health	25.6	25.6	17.9	23.1	12.8	20.5	12.8	17.9	25.6	23.1	20.5	10.3	5.1
Transport	16.3	9.3	18.6	23.3	23.3	44.2	4.7	-7.0	4.7	-39.5	-16.3	-4.7	-2.3
Communication	-8.3	16.7	8.3	16.7	16.7	25.0	8.3	16.7	33.3	8.3	33.3	0.0	25.0
Recreation & Culture	30.8	23.1	20.5	0.0	17.9	20.5	12.8	10.3	15.4	7.7	10.3	10.3	30.8
Education	31.3	62.5	68.8	37.5	25.0	18.8	18.8	0.0	0.0	0.0	0.0	6.3	37.5
Restaurant & Hotels	66.7	100.0	50.0	50.0	66.7	83.3	66.7	0.0	100.0	33.3	66.7	50.0	50.0
Miscellaneous	48.6	65.7	54.3	60.0	60.0	48.6	60.0	37.1	42.9	40.0	57.1	31.4	45.7
NFNE	48.5	51.2	43.5	43.5	42.0	49.7	29.6	34.3	34.3	26.9	25.7	19.8	33.7

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	Apr-14		Mar-15		Apr-15	
			YoY	MoM	YoY	MoM	YoY	MoM
1	Wheat	10 Kg	17.42	-6.91	-13.59	-0.72	-9.21	-2.18
2	Wheat Flour Bag	10 Kg	18.49	-1.92	-7.73	-0.22	-7.49	-1.67
3	Rice Basmati Sup. Qlty.	Kg	9.24	-0.09	-7.63	-2.23	-7.44	0.12
4	Pulse Masoor (Washed)	Kg	21.78	-0.59	4.36	-1.56	5.07	0.09
5	Pulse Moong (Washed)	Kg	29.47	1.37	11.90	-0.57	10.09	-0.28
6	Pulse Mash (Washed)	Kg	4.31	-0.42	16.15	-0.71	19.20	2.19
7	Pulse Gram	Kg	-16.20	-1.31	2.24	-2.12	2.19	-1.36
8	Vegetable Ghee (Loose)	Kg	3.72	-0.57	-9.91	-0.21	-13.45	-4.47
9	Sugar Refined	Kg	-0.41	-0.63	0.93	-0.40	7.50	5.84
10	Milk Fresh (Unboiled)	Ltr	6.93	0.75	6.07	0.03	5.63	0.34
11	Tea- Tapal Danedar	200 Gm	-9.73	-0.34	-2.68	0.46	1.12	3.55
12	Beef With Bone Av. Qlty.	Kg	5.88	0.23	3.97	0.02	4.05	0.31
13	Mutton Av. Qlty.	Kg	7.81	0.74	4.51	0.04	4.54	0.77
14	Chicken Farm Broiler (Live)	Kg	24.66	2.63	-16.27	1.92	-9.38	11.07
15	Eggs Farm	Doz	10.36	-24.49	-20.70	-8.06	-2.41	-7.07
16	Potatoes	Kg	192.80	42.07	-43.28	-6.35	-66.47	-16.02
17	Onion	Kg	-30.19	9.04	-14.65	23.92	18.31	51.16
18	Tomatoes	Kg	-6.98	-13.56	11.35	8.19	0.69	-21.84
19	Ginger	Kg	90.68	10.68	-17.22	2.22	-24.30	1.21
20	Garlic	Kg	3.25	-7.26	-2.90	0.08	3.11	-1.52

## 7. Global Commodity Prices

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

Item/ Group	Apr-14		Mar-15		Apr-15	
	YoY	MoM	YoY	MoM	YoY	MoM
<b>Overall</b>	3.2	0.9	-36.0	-3.1	-35.0	2.5
Food	2.8	1.2	-21.3	-2.6	-22.8	-0.8
Metals	-7.7	2.7	-18.4	-2.0	-21.1	-0.6
Energy	4.2	0.7	-45.3	-3.7	-43.0	5.0
Agricultural Raw Material	7.9	-1.0	-10.9	-1.3	-11.2	-1.3
Cotton	1.8	-2.8	-28.5	-0.7	-23.9	3.4

Source: IMF



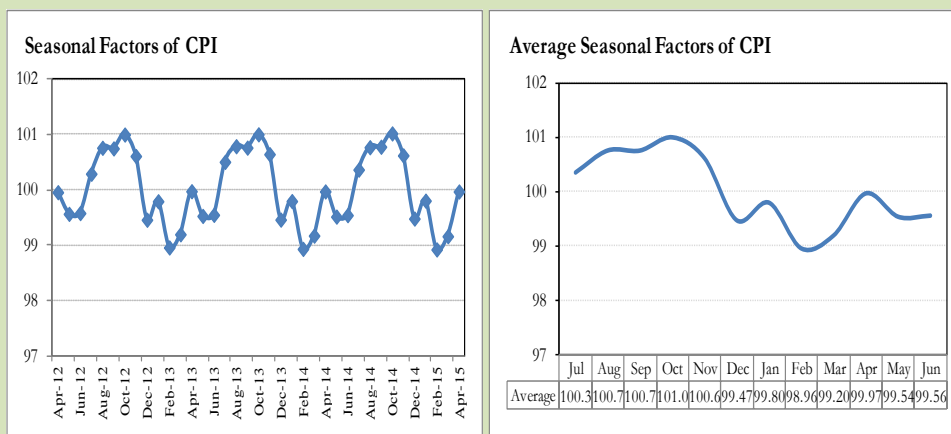
## **8. Seasonal Adjustment in CPI**

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 April 2015 has been used for seasonal adjustment analysis. The seasonal analysis is carried out without taking trading-day or Islamic calendar month's effects.

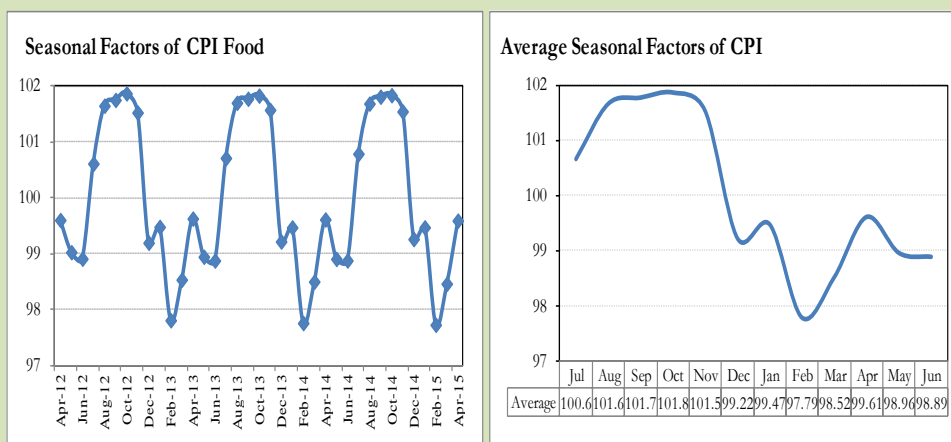
Figure 8.1 reveals that seasonality in CPI has been increasing over the period of last four years. Average seasonal factors reveal strong seasonality during the calendar year. There is an upward seasonality during the months from July to November & April and downward seasonality in the remaining months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

**Fig. 8.1 Seasonal Factors of CPI**



Note: Data Available in Annex Table 16.

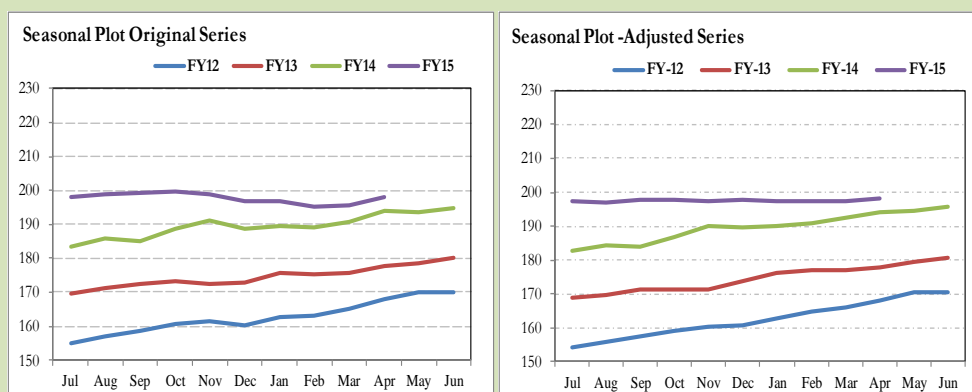
**Fig. 8.2 Seasonal Factors of CPI Food**



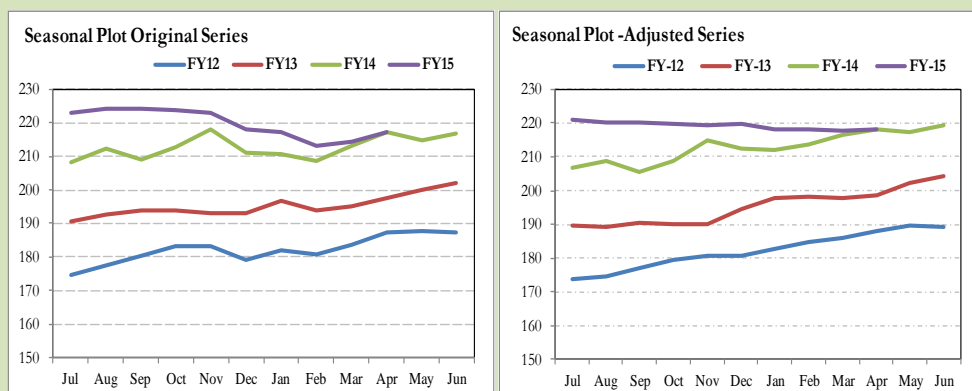
Note: Data Available in Annex Table 17.

Figures 8.3 & 8.4 show that seasonally adjusted series are relatively smoother than the original series due to the removal of the seasonal variations. The trend follows the long-term movement in original series, and is smoother than the original series because some irregular fluctuations have been removed.

**Fig. 8.3 Seasonal Plots of CPI**



**Fig. 8.4 Seasonal Plots of CPI (Food)**



Seasonally adjusted CPI for April 2015 stood at 198.21 against 198.16 in original series showing an increase of 0.05 on account of adjustment of downward seasonality in April 2015.

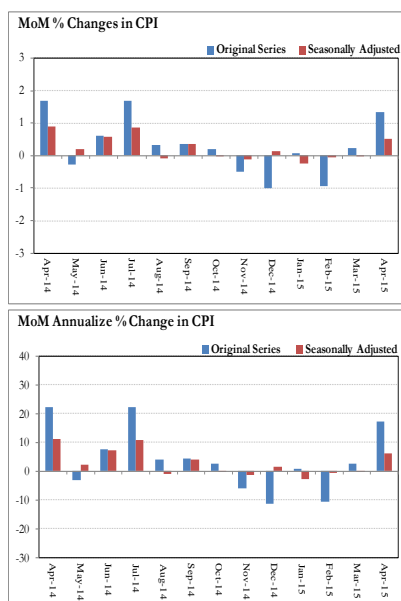
Seasonally adjusted CPI food group for April 2015 stood at 218.15 against 217.26 in original series showing an increase of 0.89 on account of adjustment of downward seasonality in April 2015.

Month-on-month change of seasonally adjusted CPI series stood at 0.51% reflecting increase during April 2015 over March 2015 and an increase of 1.32% in original series.

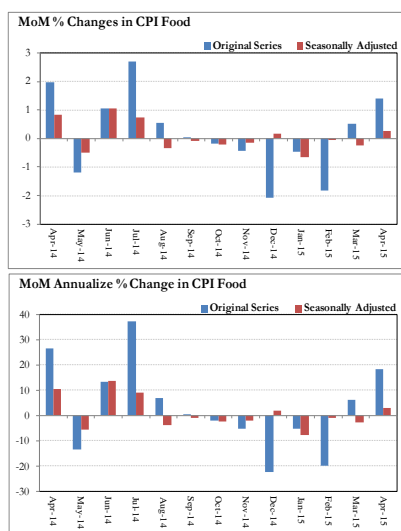
Month-on-month change of seasonally adjusted CPI food group series stood at 0.25% reflecting increase during April 2015 over March 2015 and an increase of 1.41% in original series.

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 April 2015 (corresponding to the seasonally adjusted month-on-month rate) is 6.25 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		
		Apr-14	Mar-15	Apr-15	Apr-14	Mar-15	Apr-15
<b>I. Food Group</b>	<b>37.5</b>	<b>2.0</b>	<b>0.5</b>	<b>1.4</b>	<b>9.9</b>	<b>0.5</b>	<b>0.0</b>
Food & Non-Alcoholic Beverages	34.8	2.1	0.5	1.5	9.5	-0.5	-1.0
Alcoholic Beverages & Tobacco	1.4	0.0	0.0	0.0	16.1	20.2	20.2
Restaurant & Hotels	1.2	0.6	0.4	0.2	13.6	5.0	4.5
<b>II. Non-Food Group</b>	<b>62.5</b>	<b>1.5</b>	<b>0.0</b>	<b>1.3</b>	<b>8.7</b>	<b>3.9</b>	<b>3.7</b>
Clothing & Footwear	7.6	1.2	0.3	1.0	11.2	7.4	7.1
Housing, Water, Elect, Gas & other Fuels	29.4	1.5	0.0	0.7	9.7	5.7	4.9
Furnishing & Household Equip. Maintenance etc	4.2	1.1	0.1	0.6	9.5	5.6	5.0
Health	2.2	0.4	0.1	0.5	7.1	4.3	4.5
Transport	7.2	-0.3	-0.1	0.9	4.2	-10.7	-9.7
Communication	3.2	0.0	0.0	0.0	0.9	0.3	0.4
Recreation & Culture	2.0	2.3	0.1	1.5	7.0	3.3	2.5
Education	3.9	9.7	0.0	8.7	14.3	14.2	13.2
Miscellaneous	2.8	-0.6	-0.1	0.6	5.3	3.8	5.1
<b>Headline</b>	<b>100.0</b>	<b>1.7</b>	<b>0.2</b>	<b>1.3</b>	<b>9.2</b>	<b>2.5</b>	<b>2.1</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)	
		Apr-14	Apr-15	Apr-14	Apr-15	Apr-14	Apr-15	Apr-14	Apr-15	Apr-14	Apr-15
<b>I. Food Group</b>	<b>0.0</b>	<b>125</b>	<b>125</b>	<b>19</b>	<b>38</b>	<b>21</b>	<b>33</b>	<b>29</b>	<b>35</b>	<b>56</b>	<b>19</b>
Food & Non-Alcoholic Beverages	-1.0	113	113	19	38	21	29	27	31	46	15
Alcoholic Beverages & Tobacco	20.2	6	6	0	0	0	1	1	1	5	4
Restaurant & Hotels	4.5	6	6	0	0	0	3	1	3	5	0
<b>II. Non-Food Group</b>	<b>3.7</b>	<b>348</b>	<b>348</b>	<b>61</b>	<b>89</b>	<b>67</b>	<b>138</b>	<b>102</b>	<b>97</b>	<b>118</b>	<b>24</b>
Clothing & Footwear	7.1	59	59	4	8	1	18	20	25	34	8
Housing, Water, Elect, Gas & other Fuels	4.9	36	36	2	11	9	13	13	12	12	0
Furnishing & Household Equip. Maintenance etc	5.0	69	69	0	2	11	35	28	29	30	3
Health	4.5	39	39	21	21	6	9	4	7	8	2
Transport	-9.7	43	43	16	25	11	11	13	6	3	1
Communication	0.4	12	12	4	5	3	4	2	2	3	1
Recreation & Culture	2.5	39	39	11	12	10	23	10	3	8	1
Education	13.2	16	16	0	0	9	6	0	5	7	5
Miscellaneous	5.1	35	35	3	5	7	19	12	8	13	3
<b>Overall</b>	<b>2.1</b>	<b>473</b>	<b>473</b>	<b>80</b>	<b>127</b>	<b>88</b>	<b>171</b>	<b>131</b>	<b>132</b>	<b>174</b>	<b>43</b>

Note: Prices of 14 seasonal items were not reported during the month.

Table A3: Top and Bottom 15 Contributors to CPI Inflation (YoY) in April 2015					
Top 15 Contributors		Weights	YoY Change		Weighted Contribution
Items/ Contributors			Apr-14	Apr-15	
Ranked by Weighted Contribution					
1	House Rent	21.81	8.63	6.26	52.30
2	Education	3.94	14.34	13.16	23.40
3	Milk Fresh	6.68	6.82	5.91	22.78
4	Cigarette	1.39	16.20	20.39	15.37
5	Cotton Cloth	1.73	11.65	9.85	7.99
6	Tailoring	0.88	12.74	11.45	5.99
7	Meat	2.43	6.53	4.22	5.91
8	Onion	0.55	-30.19	18.31	5.47
9	Electricity	4.40	15.82	1.79	4.38
10	Ready Made Garment	0.97	12.40	8.95	4.30
11	Sugar	1.04	-0.41	7.51	3.66
12	Household Servant	1.04	9.68	6.71	3.65
13	Personal Care	1.49	7.62	5.07	3.65
14	Beverages	1.20	11.41	5.84	3.35
15	Ready Made Food	1.23	13.59	4.54	3.22
Total		50.81			165.43
Bottom 15 Contributors					
1	Potatoes	0.49	192.80	-66.47	-30.47
2	Motor Fuel	3.03	4.01	-20.11	-27.97
3	Wheat Flour	4.16	18.54	-7.08	-16.54
4	Transport Services	2.70	4.01	-6.11	-8.47
5	Vegetable Ghee	2.07	2.57	-10.34	-8.35
6	Chicken	1.36	24.66	-9.38	-6.49
7	Cooking Oil	1.75	0.59	-9.33	-6.48
8	Rice	1.58	5.99	-8.02	-6.00
9	Wheat	0.35	17.42	-9.21	-1.73
10	Fresh Fruits	1.86	14.52	-0.91	-0.97
11	Egg	0.46	10.36	-2.41	-0.48
12	Fish	0.30	8.94	-2.44	-0.39
13	Wheat Product	0.10	18.39	-4.20	-0.22
14	Beans	0.03	13.41	-6.21	-0.10
15	Kerosene Oil	0.01	2.65	-25.69	-0.10
Total		20.24			-114.76

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

<u>Top 15 Contributors</u>		Weights	<u>MoM Change</u>		Weighted Contribution
Items/ Contributors			Mar-15	Apr-15	
Ranked by Weighted Contribution					
1	Education	3.94	0.05	8.66	25.38
2	Onion	0.55	23.92	51.16	18.94
3	Fresh Vegetable	1.62	4.26	14.33	17.70
4	Fresh Fruits	1.86	5.97	9.93	15.11
5	House Rent	21.81	0.00	0.96	13.39
6	Chicken	1.36	1.92	11.07	9.90
7	Motor Fuel	3.03	-0.24	2.74	4.69
8	Sugar	1.04	-0.41	5.85	4.58
9	Ready Made Garment	0.97	0.24	3.00	2.41
10	Tea	0.84	0.93	3.37	2.39
11	Milk Fresh	6.68	0.02	0.32	2.09
12	Text Books	0.57	0.00	3.28	2.03
13	Cotton Cloth	1.73	0.77	1.02	1.43
14	Tailoring	0.88	0.03	1.52	1.38
15	Personal Equipments	0.84	-0.98	1.33	1.16
Total		47.75			122.57
<u>Bottom 15 Contributors</u>					
1	Tomatoes	0.46	8.19	-21.84	-7.21
2	Vegetable Ghee	2.07	-0.27	-4.03	-4.81
3	Potatoes	0.49	-6.35	-16.02	-4.64
4	Wheat Flour	4.16	-0.31	-1.32	-4.58
5	Cooking Oil	1.75	-0.82	-3.27	-3.37
6	Egg	0.46	-8.06	-7.07	-2.35
7	Rice	1.58	-1.29	-1.05	-1.15
8	Wheat	0.35	-0.72	-2.18	-0.60
9	Fish	0.30	-1.13	-1.39	-0.35
10	Motor Vehicle Accessories	0.24	0.00	-1.59	-0.34
11	Pulse Gram	0.24	-2.12	-1.36	-0.22
12	Motor Vehicle	0.66	0.00	-0.28	-0.12
13	Dry Fruits	0.25	-0.33	-0.40	-0.10
14	Mustard Oil	0.10	-0.93	-1.46	-0.08
15	Wheat Product	0.10	-0.47	-0.98	-0.08
Total		13.21			-30.01

Table A3.2: Top Fifteen Contributors to CPI Inflation (YoY) in April 2015					
Items/ Contributors		Weights	YoY Change		Weighted Contribution
			Apr-14	Apr-15	
A. Ranked by Percentage Change					
1	Motor Vehicle Tax	0.11	0.00	36.71	1.51
2	Cigarette	1.39	16.20	20.39	15.37
3	Pulse Mash (Washed)	0.21	4.31	19.19	1.91
4	Onion	0.55	-30.19	18.31	5.47
5	Education	3.94	14.34	13.16	23.40
6	Sewing Needle & Dry Cell	0.15	15.87	12.15	0.79
7	Tailoring	0.88	12.74	11.45	5.99
8	Woolen Readymade Garments	0.40	13.45	10.31	2.18
9	Pulse Moong	0.23	29.47	10.09	1.62
10	Cotton Cloth	1.73	11.65	9.85	7.99
11	Ready Made Garment	0.97	12.40	8.95	4.30
12	Honey	0.04	8.95	8.59	0.26
13	Dry Fruits	0.25	9.53	7.94	1.14
14	Condiments	0.27	10.87	7.75	1.20
15	Jam, Tomato Ketchup & Pickle	0.25	5.55	7.56	0.87
Total		11.38			74.01
B. Ranked by Weights					
1	House Rent	21.81	8.63	6.26	52.30
2	Milk Fresh	6.68	6.82	5.91	22.78
3	Electricity	4.40	15.82	1.79	4.38
4	Wheat Flour	4.16	18.54	-7.08	-16.54
5	Education	3.94	14.34	13.16	23.40
6	Communication & Apparatus	3.15	0.25	0.20	0.20
7	Motor Fuel	3.03	4.01	-20.11	-27.97
8	Transport Services	2.70	4.01	-6.11	-8.47
9	Meat	2.43	6.53	4.22	5.91
10	Vegetable Ghee	2.07	2.57	-10.34	-8.35
11	Fresh Fruits	1.86	14.52	-0.91	-0.97
12	Cooking Oil	1.75	0.59	-9.33	-6.48
13	Cotton Cloth	1.73	11.65	9.85	7.99
14	Fresh Vegetable	1.62	15.55	1.89	1.65
15	Rice	1.58	5.99	-8.02	-6.00
Total		62.94			43.85
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 2.1 percent in April, 2015.					



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

Items/ Contributors		Weights	YoY Change		Weighted Contribution
			Apr-14	Apr-15	
A. Ranked by Weighted Contribution					
1	Milk Fresh	6.68	6.82	5.91	22.78
2	Cigarette	1.39	16.20	20.39	15.37
3	Meat	2.43	6.53	4.22	5.91
4	Onion	0.55	-30.19	18.31	5.47
5	Sugar	1.04	-0.41	7.51	3.66
6	Beverages	1.20	11.41	5.84	3.35
7	Ready Made Food	1.23	13.59	4.54	3.22
8	Spices	0.54	-0.70	6.79	1.98
9	Pulse Mash (Washed)	0.21	4.31	19.19	1.91
10	Milk Product	0.63	9.19	4.76	1.71
Total		15.91			65.36
B. Ranked by Percentage Change					
1	Cigarette	1.39	16.20	20.39	15.37
2	Pulse Mash (Washed)	0.21	4.31	19.19	1.91
3	Onion	0.55	-30.19	18.31	5.47
4	Pulse Moong	0.23	29.47	10.09	1.62
5	Honey	0.04	8.95	8.59	0.26
6	Dry Fruits	0.25	9.53	7.94	1.14
7	Condiments	0.27	10.87	7.75	1.20
8	Jam, Tomato Ketchup & Pickle	0.25	5.55	7.56	0.87
9	Sugar	1.04	-0.41	7.51	3.66
10	Spices	0.54	-0.70	6.79	1.98
Total		4.79			33.49
C. Ranked by Weights					
1	Milk Fresh	6.68	6.82	5.91	22.78
2	Wheat Flour	4.16	18.54	-7.08	-16.54
3	Meat	2.43	6.53	4.22	5.91
4	Vegetable Ghee	2.07	2.57	-10.34	-8.35
5	Fresh Fruits	1.86	14.52	-0.91	-0.97
6	Cooking Oil	1.75	0.59	-9.33	-6.48
7	Fresh Vegetable	1.62	15.55	1.89	1.65
8	Rice	1.58	5.99	-8.02	-6.00
9	Cigarette	1.39	16.20	20.39	15.37
10	Chicken	1.36	24.66	-9.38	-6.49
Total		24.92			0.89
Note: Weighted contribution is estimated by multiplying the weights by the price change of an item; this is then reported as a share in YoY change in CPI Food, which is 0.0 percent in April, 2015.					

Table A3.4: Top Ten Contributors to CPI Non-food Inflation (YoY) in April 2015					
Items/ Contributors		Weights	YoY Change		Weighted Contribution
			Apr-14	Apr-15	
A. Ranked by Weighted Contribution					
1	House Rent	21.81	8.63	6.26	52.30
2	Education	3.94	14.34	13.16	23.40
3	Cotton Cloth	1.73	11.65	9.85	7.99
4	Tailoring	0.88	12.74	11.45	5.99
5	Electricity	4.40	15.82	1.79	4.38
6	Ready Made Garment	0.97	12.40	8.95	4.30
7	Household Servant	1.04	9.68	6.71	3.65
8	Personal Care	1.49	7.62	5.07	3.65
9	Personal Equipments	0.84	-1.53	5.18	2.74
10	Woolen Readymade Garments	0.40	13.45	10.31	2.18
Total		37.52			110.58
B. Ranked by Percentage Change					
1	Motor Vehicle Tax	0.11	0.00	36.71	1.51
2	Education	3.94	14.34	13.16	23.40
3	Sewing Needle & Dry Cell	0.15	15.87	12.15	0.79
4	Tailoring	0.88	12.74	11.45	5.99
5	Woolen Readymade Garments	0.40	13.45	10.31	2.18
6	Cotton Cloth	1.73	11.65	9.85	7.99
7	Ready Made Garment	0.97	12.40	8.95	4.30
8	Construction Wage Rate	0.33	9.82	7.10	1.13
9	Hosiery	0.51	11.46	6.76	1.80
10	Household Servant	1.04	9.68	6.71	3.65
Total		10.07			52.75
C. Ranked by Weights					
1	House Rent	21.81	8.63	6.26	52.30
2	Electricity	4.40	15.82	1.79	4.38
3	Education	3.94	14.34	13.16	23.40
4	Communication & Apparatus	3.15	0.25	0.20	0.20
5	Motor Fuel	3.03	4.01	-20.11	-27.97
6	Transport Services	2.70	4.01	-6.11	-8.47
7	Cotton Cloth	1.73	11.65	9.85	7.99
8	Gas	1.58	0.86	0.00	0.00
9	Footwear	1.55	9.14	0.69	0.42
10	Personal Care	1.49	7.62	5.07	3.65
Total		45.39			55.90
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 3.7 percent in April, 2015.					

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

Groups	Decrease or no change	Subdued increase (Greater than 0% but less than 5%)	Moderate increase (5% but less than 10%)	Double digit increase (10% or more)
Food & Non-Alcoholic Beverages	Potatoes, Ginger, Muskmelon (Kharbooza), Kinnu, Vegetable Ghee (Loose), Peas, Cooking Oil (Pakwan)	Curd, Mineral Water Nestle 1.5 Litre, Pickles Ahmed/Mitchelles, Pepper Black National, Mutton Av.Qlty., Jam-e-Shireen	Milo 200 Gm., Chillies Green, Coriander Seed Powd.National., Powder Milk Nido 400Gm., Toffee (Hilal), Honey Langanese 500 Gm.	Coriander Seed (Loose), Cardamom Large Loose Av. Q, Almonds Whole Av.Qlty., Pulse Mash (Washed), Onion, Tinda, Cinnamon Loose Av. Qlty, Chillies Powder Loose, Bottlegourd, Milk Tetra Pack 1/2 Ltr., Ice
Alcoholic Beverages & Tobacco		Betel Leaves	Betel Nuts	Cigarettes Morven Gold 20,S, Cigarettes Capstan 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	Heavy Wt Suiting Law.Pur Sup. Qlty, Foot Wear Local (Children), Foot Wear Local (Male), Linen Av.Qlty, Dry Cleaning Suit Coat Pant, Pullover Ladies Oxford/Bon	School Uni. Kameez,Shal.Girls, Pant Boy 24"/26" Length, School Uni. Kameez- Shal Boys, Shirting Av.Qlty., Shirt Boy 24"/26" Length	Lawn Printed Gul Ahmed/Al Karam, Tailoring Suit (Female), Secondhand Sweater For Men, Gloves Av.Qlty, Tailoring Awami-Suit (Male), School Uni. Pant- Shirt Boys, Frock W/Wear Girls, Vest/Shameez (Women) Avg. Qlty
Housing, Water, Elect, Gas & other Fuels	Kerosene Oil, Bajree, Elect. Charges Upto 50 Units, Elect. Charges 01 - 100 Units, Gas Chrg Over 100 - 200 Mmbtu	Synthetic Enemal ICI, Synthetic Enemal Robialac, Bricks (New) Ist Class, Firewood Whole, Sand (Black Pit Sand)	Electrician Wage Rate(P/Pnt), Carpenter Wage Rate, Unskilled Labour Wage Rat, Mason (Raj) Wage Rate, Plumber Wage Rate	
Furnishing & Household Equip. Maintenance etc	Electric Blub Energy Saver 14 Watt, Surf Excel 400 Gms Poly Bag	S. Steel Deghchi Medium Size, Towel(3'X2') Av. Qlty, Dinner Set Plastic 72 Pcs, Sofa Set Wooden With Foam, Table Shesham Wood	Finis 500 MI, Toilet Paper Roll (R.Petal), Thermos Starvac 1 Ltr, Phenyl Typhoon/Finis/Carr 3 Ltr, Non Stick Cooking Pan	Match Box (Small), Robin Blue (35 Gms), Boot Polish Cherry/Kiwi 50 MI
Health	Flagyl Tab. 200 Mg., Betnovate-N Ointment 5 Gm, Calcium Syrup Sandoz, Burnol Cream 30 Gm, Lederplex Syrup	Cotton Bandage 2" - 4", ECG Charges, Thermometer China, Sugar Test (Random/Fasting), Septran Tablets, Galxos-D (450 Gm), Saniplast (1 Putty)	X-Ray (Chest) Charges, Doctor (MBBS) Clinic Fee, Urine Test (Dr) Charges, Glycerin Small Bottle, Gripe-Water Woodward	Jouhar Joshanda, Hydryllin Syrup 120 MI.
Transport	Petrol Super, High Speed Diesel HSD, Gas Cylinder S. Size (L.P.G), Bus Fare Outside City (A/C), Bus Fare Min (Within City)	Motor Cycle Service Charges, Car Service Charges, Bicycle With Tyres & Tube, Suzuki Fare Maximum Within City, Taxi 4 Seater Fare	Cycle Overhauling Charges, Car Toyota 1300 CC, CNG, Tyre Puncture Charges, Air Fare Economy Class., Car Suzuki 1000 CC	Car Tax For 800 CC To 1300 CC
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	Internet Charges, Telephone Set Av. Qlty	T.C.S. Ch. Min.Within Zone
Recreation & Culture	T.V. 20" Colored Sony, Radio With C.Player National, V.C.P. Panasonic/LG/National, English Book BA/B.Sc, TV License Fee Domestic	Fountain Pen Hero/Wings/China, Urdu Book Class V (T.B.Board), Urdu Book Ist Year/ Inter, Pencil Goldfish/Deer, Maths Book Ist. Year (T.B. Board)	Cinema Non-A/C High Class, Maths Book Class IX or X, English Book Class VI	Cinema A/C High Class
Education		Govt. Engg. Coll. Fee Ist Year, Coaching Charges For Class XI/ XII Science Group, Pvt Eng. College Fee (Ist Year)	Govt. Med. College Fee MBBS Ist Year, MBA Tuition Fee, Coaching Charges For Class XI/ XII Commerce Gr	Pvt School Fee Eng. Med (Class-X), Pvt School Fee Eng. Med (Class-VI), Pvt School Fee Eng. Med (Class-I), Pvt Med. College Fee MBBS (Ist Year)
Restaurant & Hotels		Cooked Dal (Av. Hotel), Bread Tandoori St. Size, Chicken Biryani Full/Double	Cooked Mutton (Av. Hotel), Tea Prepared (Ordinary), Cooked Beef (Av. Hotel)	
Miscellaneous	Silver Tezabi 24 Ct, Gold Tezabi 24 Ct, Toilet Soap Lifebuoy 140 Gms, Toilet Soap Lux 95 Gms	Hair Oil Amla/Chambeli, Shaving Cream Touch-Me/Admiral, Hair Color (Kala Kola)	Toothpaste Med Size Colgate 70Gms, Perfume Med. Size Medora/Broche, Haircut Charges for Men	Purse Ladies (Leather) Av. Qlty, Shaving Charges, Artificial Jewellery Set

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

	Up to Rs: 8000						Rs 8001- 12000					
	General		Food		Non-Food		General		Food		Non-Food	
	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY
1 Rawalpindi	1.0	3.0	0.4	0.2	1.7	6.7	1.2	3.7	0.5	0.3	1.9	7.4
2 Islamabad	0.6	1.5	0.4	-0.7	0.9	4.1	0.8	1.8	0.2	-0.3	1.3	4.0
3 Lahore	1.3	3.1	1.6	2.5	0.9	4.0	1.2	3.1	1.4	2.9	1.1	3.4
4 Gujranwala	1.2	2.2	1.7	1.1	0.7	3.6	1.2	2.0	1.5	1.1	0.8	3.0
5 Sialkot	1.1	1.4	1.3	-0.5	0.9	4.1	1.1	1.1	1.3	-0.8	0.9	3.2
6 Faisalabad	1.6	1.6	2.5	-1.1	0.6	5.0	1.6	1.8	2.4	-0.3	0.7	4.1
7 Multan	1.4	0.5	1.6	-1.5	1.3	3.1	1.6	0.8	1.8	-0.9	1.3	2.6
8 Sargodha	2.1	0.7	2.4	-3.3	1.8	5.2	2.1	1.1	2.2	-3.0	1.9	5.3
9 Bahawalpur	1.6	1.3	2.9	-1.4	0.3	4.4	1.5	1.1	2.6	-0.9	0.5	3.1
10 Karachi	1.3	1.7	0.9	-2.7	1.9	8.0	1.2	2.1	0.8	-2.0	1.7	7.1
11 Hyderabad	1.2	0.6	0.7	-1.2	1.8	3.3	1.3	1.2	0.7	-0.8	2.0	3.5
12 Sukkur	0.1	-1.8	-0.2	-6.6	0.4	4.3	0.4	-0.5	-0.1	-5.1	0.9	4.6
13 Larkana	0.0	-1.1	-0.1	-3.5	0.2	1.7	0.3	0.0	0.3	-2.1	0.4	2.1
14 Peshawar	0.6	0.0	0.9	-3.9	0.2	4.5	0.7	0.6	1.1	-3.1	0.2	4.4
15 Bannu	0.7	0.7	0.8	-1.2	0.7	3.1	0.6	0.7	0.6	-1.0	0.5	2.6
16 Quetta	0.9	-1.2	0.1	-4.2	1.8	2.9	1.0	-0.7	0.1	-3.6	1.9	2.8
17 Khuzdar	-0.3	1.1	-0.5	1.3	0.0	0.8	-0.3	0.9	-0.6	1.5	0.1	0.3
	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	1.3	3.8	0.5	0.5	2.0	6.9	1.4	3.9	0.8	1.1	1.9	6.2
2 Islamabad	0.6	1.6	0.3	0.0	0.9	3.3	0.7	1.9	0.4	0.4	0.9	3.2
3 Lahore	1.3	3.3	1.3	3.6	1.2	3.0	1.2	3.1	1.2	4.2	1.2	2.0
4 Gujranwala	1.2	2.1	1.4	1.7	0.9	2.4	1.1	1.6	1.4	1.6	0.9	1.6
5 Sialkot	1.3	0.9	1.3	-0.7	1.2	2.5	1.3	1.1	1.3	0.1	1.2	2.0
6 Faisalabad	1.6	2.1	2.3	0.2	0.9	4.1	1.5	2.1	2.2	1.0	0.9	3.0
7 Multan	1.8	1.1	1.8	-0.3	1.7	2.4	1.9	1.3	2.1	0.3	1.6	2.1
8 Sargodha	2.2	1.0	2.2	-2.9	2.1	4.6	2.2	1.1	2.3	-2.3	2.1	3.8
9 Bahawalpur	1.5	1.4	2.5	-0.4	0.7	3.0	1.4	1.2	2.6	0.1	0.5	2.1
10 Karachi	1.2	2.4	0.8	-1.4	1.7	6.6	1.2	2.5	0.7	-1.0	1.6	5.8
11 Hyderabad	1.4	1.2	0.6	-0.2	2.3	2.8	1.5	1.3	0.7	0.5	2.2	2.1
12 Sukkur	0.8	-0.2	0.1	-4.6	1.3	4.3	1.2	0.4	0.4	-3.5	1.9	3.7
13 Larkana	0.5	0.6	0.4	-1.3	0.6	2.3	0.7	1.6	0.8	-0.3	0.7	3.0
14 Peshawar	0.8	1.0	1.5	-2.9	0.3	4.7	0.9	1.5	1.8	-2.0	0.2	4.3
15 Bannu	0.7	0.9	0.7	-1.1	0.8	2.8	0.7	1.3	0.6	-0.7	0.7	3.1
16 Quetta	1.2	-0.5	0.4	-2.9	2.0	2.0	1.3	-0.1	0.6	-2.3	1.9	1.9
17 Khuzdar	-0.2	0.6	-0.7	2.0	0.2	-0.8	-0.2	0.9	-0.6	2.7	0.2	-0.6
	Above Rs 35000						Combined					
	General		Food		Non-Food		General		Food		Non-Food	
	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY
1 Rawalpindi	1.8	5.5	1.0	1.9	2.1	7.2	1.6	4.9	0.9	1.4	2.1	7.3
2 Islamabad	1.2	4.2	0.8	1.6	1.3	5.6	1.1	4.0	0.8	1.3	1.4	5.9
3 Lahore	1.2	3.1	1.0	4.6	1.2	2.3	1.2	3.1	1.2	4.0	1.2	2.4
4 Gujranwala	1.1	1.8	1.4	1.7	0.9	1.9	1.1	1.9	1.4	1.6	0.9	2.1
5 Sialkot	1.3	0.9	1.4	-0.3	1.2	1.6	1.2	1.0	1.3	-0.3	1.2	1.9
6 Faisalabad	1.4	2.3	2.2	1.6	0.9	2.7	1.5	2.1	2.3	0.6	0.9	3.1
7 Multan	1.8	1.6	2.0	0.9	1.7	2.0	1.7	1.3	1.9	0.1	1.6	2.1
8 Sargodha	2.0	2.1	1.8	-1.2	2.1	3.7	2.1	1.3	2.1	-2.3	2.1	3.7
9 Bahawalpur	1.2	1.6	2.5	0.0	0.7	2.3	1.4	1.4	2.6	-0.4	0.7	2.5
10 Karachi	1.1	4.3	0.4	0.3	1.4	6.5	1.1	3.5	0.6	-0.6	1.5	6.7
11 Hyderabad	1.8	1.5	1.1	1.0	2.2	1.7	1.5	1.3	0.8	0.2	2.1	2.1
12 Sukkur	1.3	1.4	0.6	-2.3	1.7	3.2	0.9	0.2	0.2	-4.1	1.3	3.1
13 Larkana	1.0	2.8	1.1	0.6	1.0	3.9	0.5	0.8	0.5	-1.3	0.6	2.2
14 Peshawar	0.8	2.5	2.2	-1.2	0.1	4.3	0.8	1.6	1.6	-2.3	0.2	4.2
15 Bannu	0.7	0.6	0.7	0.1	0.7	0.8	0.7	0.9	0.6	-0.8	0.7	2.1
16 Quetta	1.4	0.4	0.9	-1.8	1.7	1.6	1.2	-0.1	0.6	-2.7	1.7	1.7
17 Khuzdar	-0.1	0.4	-0.5	4.3	0.2	-1.5	-0.2	0.9	-0.6	2.6	0.0	-0.4

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

City	High inflation cities			City	Low inflation cities		
	General	Food	Non-food		General	Food	Non-food
Nawabshah	6.2	2.0	8.9	Loralai & Cantt	2.0	0.7	3.0
Rawalpindi	4.9	1.4	7.3	Turbat	2.0	4.3	0.6
Islamabad	4.0	1.3	5.9	Bahawalnagar	2.0	-0.1	3.4
Sahiwal	3.6	-1.2	6.9	Abbotabad	1.9	0.5	2.9
Wazirabad	3.6	3.5	3.6	Gujranwala	1.9	1.6	2.1
Karachi	3.5	-0.6	6.7	Mingora	1.7	-1.3	3.7
Lahore	3.1	4.0	2.4	Peshawar	1.6	-2.3	4.2
Mardan	2.2	-1.9	4.6	Mithi	1.5	0.1	2.5
Attock	2.2	-2.6	5.8	Bahawalpur	1.4	-0.4	2.5
D.G. Khan	2.1	-0.9	4.2	Sargodha	1.3	-2.3	3.7
Faisalabad	2.1	0.6	3.1	Dadu	1.3	-0.7	2.8
				Hyderabad	1.3	0.2	2.1
				Multan	1.3	0.1	2.1
				Gwadar	1.1	2.2	0.4
				D. I. Khan	1.1	0.9	1.2
				Jhelum	1.0	-0.5	2.1
				Mir Pur Khas	1.0	-0.2	1.9
				Sialkot	1.0	-0.3	1.9
				Bannu	0.9	-0.8	2.1
				Khuzdar	0.9	2.6	-0.4
				Larkana	0.8	-1.3	2.2
				Mianwali	0.7	-4.5	4.1
				Jhang	0.5	-0.5	1.1
				Rahim Yar Khan	0.4	-2.6	2.6
				Sukkur	0.2	-4.1	3.1
				Muzaffargarh	0.0	-1.4	1.1
				Quetta	-0.1	-2.7	1.7
				Vehari	-0.5	0.3	-1.1
				Dera Mrd.Jamali	-0.9	-5.1	2.2

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>Apr-14</b>	<b>Mar-15</b>	<b>Apr-15</b>	<b>Apr-14</b>	<b>Mar-15</b>	<b>Apr-15</b>
<b><u>Up to Rs. 8000</u></b>						
General	1.6	0.3	1.1	9.1	1.5	1.0
Food	1.7	0.5	1.2	10.1	-1.1	-1.6
Non-food	1.4	0.1	1.0	7.8	4.9	4.4
<b><u>Rs. 8001- 12000</u></b>						
General	1.6	0.3	1.2	8.8	1.8	1.3
Food	1.8	0.5	1.3	10.0	-0.6	-1.1
Non-food	1.4	0.1	1.1	7.6	4.4	4.0
<b><u>Rs. 12001- 18000</u></b>						
General	1.6	0.3	1.2	9.8	2.1	1.7
Food	1.9	0.5	1.4	9.9	0.0	-0.5
Non-food	1.4	0.1	1.1	9.6	4.2	3.9
<b><u>Rs. 18001- 35000</u></b>						
General	1.7	0.3	1.3	9.7	2.2	1.8
Food	1.9	0.5	1.4	9.9	0.5	0.0
Non-food	1.5	0.0	1.2	9.6	3.7	3.4
<b><u>Above Rs. 35000</u></b>						
General	1.8	0.2	1.4	8.8	3.0	2.6
Food	2.2	0.5	1.5	9.9	1.4	0.8
Non-food	1.5	0.0	1.4	8.3	3.8	3.6
<b><u>All income groups</u></b>						
General	1.7	0.2	1.3	9.2	2.5	2.1
Food	2.0	0.5	1.4	9.9	0.5	0.0
Non-food	1.5	0.0	1.3	8.7	3.9	3.7

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

Sr.No.	Items	Unit	Prices Apr-15	Percentage change	
				YoY	MoM
1	Wheat	10Kg.	339.0	-10.0	-2.6
2	Wheat Flour Bag	10Kg.	384.3	-7.6	-1.5
3	Rice Basmati Broken	Kg.	70.2	-5.4	-1.1
4	Rice Irri-6	Kg.	50.3	-7.3	-0.5
5	Bread Plain Med. Size (340-400 Gm.)	Each	40.8	0.8	0.0
6	Beef	Kg.	303.2	5.1	0.2
7	Mutton	Kg.	595.3	4.3	0.2
8	Chicken Live (Farm)	Kg.	150.2	-11.2	12.1
9	Milk Fresh	Litr	76.6	6.7	0.3
10	Curd	Kg.	89.8	7.6	0.2
11	Milk Powdered Nido	500G	355.9	9.5	0.0
12	Egg Hen (Farm)	Doz.	81.2	-6.2	-10.4
13	Mustard Oil	Kg.	179.0	-3.2	-1.3
14	Cooking Oil (Tin)	2.5Ltr	478.9	-11.4	-4.7
15	Veg. Ghee (Tin)	2.5Kg.	469.5	-8.7	-4.2
16	Veg. Ghee Loose	Kg.	142.6	-12.6	-3.6
17	Bananas	Doz.	71.8	-2.6	3.9
18	Masoor Pulse Washed	Kg.	135.8	6.8	-0.4
19	Moong Pulse Washed	Kg.	167.7	12.4	0.2
20	Mash Pulse Washed	Kg.	168.0	25.3	2.6
21	Gram Pulse Washed	Kg.	76.9	2.1	-0.3
22	Potatoes	Kg.	20.4	-64.0	-13.4
23	Onions	Kg.	42.8	16.7	52.9
24	Tomatoes	Kg.	42.4	13.5	-19.4
25	Sugar	Kg.	56.9	8.2	4.9
26	Gur	Kg.	84.0	6.6	2.5
27	Salt Powdered Loose (Lahori)	Kg.	10.0	3.5	0.0
28	Red Chilies Powder Loose	Kg.	261.9	16.5	-0.7
29	Garlic	Kg.	140.7	4.4	-1.1
30	Tea (Yellow Label )	200Gm.	146.8	2.8	7.2
31	Cooked Beef Plate	Each	83.4	3.8	0.3
32	Cooked Dal Plate	Each	49.0	5.9	0.2
33	Tea Prepared (Sada)	Cup	18.9	6.1	0.1
34	Cigarettes K-2 (20'S)	20'S	45.4	17.5	0.0
35	Long Cloth (Coarse Latha)	Mtr.	201.9	11.3	0.3
36	Shirting	Mtr.	159.6	6.9	0.3
37	Lawn	Mtr.	240.1	14.6	0.4
38	Georgette (Voil Printed)	Mtr.	123.1	7.4	0.0
39	Sandal Gents Bata	Pair	699.0	0.0	0.0
40	Chappal Spong. Bata (Gents)	Pair	179.0	0.0	0.0
41	Sandal Ladies Bata	Pair	499.0	0.0	0.0
42	Electric Charges 1-50	Unit	2.0	0.0	0.0
43	Gas Charges upto 3.3719	Mmbtu	124.2	0.0	0.0
44	Kerosene	Litr	86.2	-28.8	2.1
45	Firewood	40Kg	576.6	3.8	-0.1
46	Energy Savor 14 Watts	Each	165.7	1.1	0.0
47	Washing Soap (200-250 Gm.)	Cake	24.4	2.6	0.0
48	Match Box	Each	1.8	21.3	4.6
49	Petrol	Litr	75.1	-31.6	5.4
50	Diesel	Litr	84.5	-26.8	3.6
51	L.P.G.( 11 Kg Cylinder.)	Each	1088.7	-23.8	-6.4
52	Tele. Local Call	Call	3.9	0.0	0.0
53	Bath Soap Lifebuoy (Standard)	Cake	36.0	0.0	0.0
<b>Maximum</b>				<b>25.3</b>	<b>52.9</b>
<b>Median</b>				<b>2.6</b>	<b>0.0</b>
<b>Minimum</b>				<b>-64.0</b>	<b>-19.4</b>

Table A9: Distribution of Price Changes (YoY) - WPI Items: April 2015				
Groups	Decrease or no change	Subdued increase (Greater than 0% but less than 5%)	Moderate increase (5% but less than 10%)	Double digit increase (10% or more)
Agriculture Forestry & Fishery Products	Edible Roots/Potatoes, Stimulant and Spice Crops, Fibre Crops, Poultry, Wheat, Other Oil Seeds, Rice, Fresh Fruits, Sorghum/Jowar, Eggs, Millet/Bajra, Maize	Cotton Seeds	Pulses, Hides and Fur Skins-Raw, Milk from Bovine Animals, Fuel Wood in Logs, Sugar Crops	Fish Live Fresh or Chilled, Dry Fruits, Raw Animal Material/Wool, Vegetables, Unmanufactured Tobacco
Ores & Minerals, Electricity Gas & Water	Natural Gas Liquefied, Coal Not Agglomerated	Electrical Energy	Salt & Pure Sodium Chloride	
Food Products, Beverages and Tobacco, Textiles, Apparel and Leather Products	Other Leather N.E.C, Cotton Yarn, Vegetable Ghee, Nylon Yarn, Wheat Flour, Vegetable Oil Refined, Blended Yarn, Other Food Products, Oil Cakes, Spices, Footwear, Sugar Confectionary, Chocolate	Ice Cream, Other Cereal Flour, Fruit Juices, Dried Fruits & Nuts, Cotton Fabrics, Vegetables & Fruit Juices, Coffee and Tea, Mineral Water	Ready Made Garments, Towels, Silk and Rayon Fabrics, Sugar Refined, Synthetic Carpets, Meat of Animals, Blankets, Dairy Products N.E.C, Milk and Cream in Solid Form, Beverages, Bed Sheets, Leather without Hairs	Tobacco Products, Woolen Carpets, Processed Liquid Milk, Quilts, Woven Fabrics, Hosiery Products, Other Fabrics
Other Transportable Goods except Metal Products, Machinery and Equipments	Furnace Oil, Kerosene Oil, Diesel Oil, Motor Sprit, Insecticides, Hard Board, Printing Paper, Soaps & Detergent, Cement, Coke, Matches	Bed Foams, Medicines, Fertilizers, Auto Tyres, Dying Materials, Mobil Oil	Ceramics and Sanitary, Plastic Products, Glass Sheets, Paints & Varnishes, Bricks Blocks and Tiles	Pesticides, Other Glass Articles, Timber, Chemicals
Metal Product Machinery & Equipment	Cultivators, Motor Cycles, Pig Iron, Engines and Motors, Vacuum Pumps, Concrete Mixer, Radio and Television, Lathe Machines, Chuff Cutter, Tractors	Steel Products, Lighting Equipments, Refrige,Wash& Sew Mach,Iron,Fan, Bicycles, Steel Bars & Sheets, Motor Vehicles	Air Conditioners, Electrical Wires	Pipe Fittings



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

Items and specification	Weights	Index		
		Apr-14	Mar-15	Apr-15
<b>General</b>	<b>100.00</b>	<b>194.06</b>	<b>195.57</b>	<b>198.16</b>
<b>Food &amp; Non-Alcoholic Beverages.</b>	<b>34.83</b>	<b>216.45</b>	<b>210.96</b>	<b>214.18</b>
1 Wheat	0.35	222.02	206.08	201.58
2 Wheat Flour	4.16	229.81	216.38	213.53
3 Wheat Product	0.10	221.65	214.46	212.35
4 Besan	0.15	171.35	174.98	175.45
5 Rice	1.58	193.79	180.14	178.25
6 Cereals	0.16	233.92	239.89	239.89
7 Bakery & Confectionary	1.16	201.95	207.63	207.72
8 Nimco	0.46	225.89	238.99	238.93
9 Meat	2.43	236.36	245.19	246.33
10 Chicken	1.36	208.71	170.28	189.13
11 Fish	0.30	220.73	218.38	215.34
12 Milk Fresh	6.68	236.48	249.65	250.46
13 Milk Product	0.63	232.27	242.74	243.32
14 Milk Powder	0.11	213.11	226.26	225.93
15 Egg	0.46	179.91	188.93	175.57
16 Mustard Oil	0.10	157.86	156.03	153.75
17 Cooking Oil	1.75	162.26	152.09	147.12
18 Vegetable Ghee	2.07	159.80	149.30	143.28
19 Dry Fruits	0.25	232.17	251.60	250.60
20 Fresh Fruits	1.86	234.38	211.26	232.24
21 Pulse Masoor	0.27	178.68	188.43	188.36
22 Pulse Moong	0.23	282.59	311.95	311.10
23 Pulse Mash (Washed)	0.21	194.28	226.61	231.57
24 Pulse Gram	0.24	169.47	175.56	173.18
25 Gram Whole	0.16	178.38	179.08	178.42
26 Beans	0.03	247.85	235.83	232.45
27 Potatoes	0.49	384.45	153.49	128.90
28 Onion	0.55	221.58	173.43	262.15
29 Tomatoes	0.46	144.04	185.55	145.03
30 Fresh Vegetable	1.62	221.23	197.16	225.41
31 Sugar	1.04	191.18	194.18	205.53
32 Gur	0.02	244.04	252.22	256.44
33 Honey	0.04	279.40	303.39	303.39
34 Sweet Meet	0.25	225.66	234.31	234.89
35 Beverages	1.20	196.47	206.84	207.94
36 Jam, Tomato Ketchup & Pickle	0.25	193.00	207.58	207.59
37 Condiments	0.27	238.59	256.81	257.07
38 Spices	0.54	219.82	235.06	234.74
39 Tea	0.84	225.89	219.24	226.62
<b>Alcoholic Beverages, Tobacco</b>	<b>1.41</b>	<b>221.91</b>	<b>266.63</b>	<b>266.65</b>
40 Cigarette	1.39	222.30	267.63	267.63
41 Betel Leaves & Nuts	0.02	197.90	206.03	207.03
<b>Clothing &amp; Footwear</b>	<b>7.57</b>	<b>202.73</b>	<b>215.06</b>	<b>217.17</b>
42 Cotton Cloth	1.73	192.48	209.30	211.44
43 Woolen Cloth	0.88	224.40	233.69	234.13
44 Ready Made Garment	0.97	202.29	213.98	220.40
45 Woolen Readymade Garments	0.40	218.34	240.87	240.86
46 Hosiery	0.51	214.77	226.43	229.28
47 Dopatta	0.44	221.79	231.21	232.30
48 Cleaning & Laundering	0.21	222.87	237.64	237.64

Table A10: Consumer Price Index Numbers by Major Groups and Composite Commodities				
Items and specification	Weights	Index		
		Apr-14	Mar-15	Apr-15
49 Tailoring	0.88	242.51	266.24	270.28
50 Footwear	1.55	163.41	164.45	164.53
<b>Housing,Water,Elect,Gas &amp; Other Fuel</b>	<b>29.41</b>	<b>169.46</b>	<b>176.51</b>	<b>177.73</b>
51 House Rent	21.81	157.05	165.29	166.88
52 Construction Input Item	0.56	230.86	237.12	238.88
53 Construction Wage Rate	0.33	196.20	208.81	210.14
54 Water Supply	0.50	149.92	149.92	149.92
55 Electricity	4.40	227.44	231.52	231.52
56 Gas	1.58	143.81	143.81	143.81
57 Kerosene Oil	0.01	281.05	205.81	208.84
58 Fire Wood Whole	0.23	265.60	275.22	274.81
<b>Furnished H.Hold Equip.&amp; Maint. Etc</b>	<b>4.21</b>	<b>200.99</b>	<b>209.89</b>	<b>211.06</b>
59 Furniture	0.33	192.83	202.15	202.69
60 Household Textile	0.65	197.88	207.67	207.73
61 Household Equipment	0.59	169.22	172.55	173.79
62 Utensils	0.32	202.35	212.69	212.94
63 Plastic Products	0.25	194.12	201.40	201.48
64 Washing Soap & Detergent	0.79	218.08	224.64	225.12
65 Sewing Needle & Dry Cell	0.15	177.41	184.21	198.97
66 Household Servant	1.04	213.99	227.11	228.35
67 Marriage Hall Charges	0.08	219.18	231.83	231.83
<b>Health</b>	<b>2.19</b>	<b>170.58</b>	<b>177.26</b>	<b>178.21</b>
68 Drug Medicine	1.27	144.47	148.33	148.33
69 Medical Equipment	0.01	215.08	222.66	225.36
70 Doctor (MBBS) Clinic Fee	0.59	227.19	238.49	241.97
71 Medical Test	0.32	168.40	177.69	177.69
<b>Transport</b>	<b>7.20</b>	<b>195.61</b>	<b>175.14</b>	<b>176.70</b>
72 Motor Vehicle	0.66	160.07	163.87	163.41
73 Motor Vehicle Accessories	0.24	225.59	230.17	226.51
74 Motor Fuel	3.03	188.42	146.52	150.53
75 Mechanical Service	0.46	202.66	212.42	212.78
76 Motor Vehicle Tax	0.11	153.74	210.18	210.18
77 Transport Services	2.70	210.19	197.28	197.35
<b>Communication</b>	<b>3.22</b>	<b>129.80</b>	<b>130.27</b>	<b>130.29</b>
78 Postal Services	0.07	215.89	227.44	227.44
79 Communication & Apparatus	3.15	127.99	128.23	128.25
<b>Recreation &amp; Culture</b>	<b>2.02</b>	<b>187.95</b>	<b>189.80</b>	<b>192.74</b>
80 Recreation & Culture	0.86	126.96	128.25	128.25
81 Text Books	0.57	278.49	280.89	290.10
82 News Papers	0.19	175.42	175.42	175.42
83 Stationery	0.40	196.59	199.80	201.55
<b>Education</b>	<b>3.94</b>	<b>184.84</b>	<b>192.50</b>	<b>209.17</b>
84 Education	3.94	184.84	192.50	209.17
<b>Restaurants And Hotels</b>	<b>1.23</b>	<b>236.98</b>	<b>247.22</b>	<b>247.73</b>
85 Ready Made Food	1.23	236.98	247.22	247.73
<b>Miscellaneous Goods And Services</b>	<b>2.76</b>	<b>213.15</b>	<b>222.57</b>	<b>223.99</b>
86 Personal Care	1.49	197.28	206.71	207.29
87 Cosmetics	0.39	181.15	190.30	190.49
88 Blades	0.03	182.78	185.88	185.88
89 Personal Equipments	0.84	257.00	266.75	270.30

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

Items and Specifications	Index		
	Apr-14	Mar-15	Apr-15
<b>General</b>	<b>211.88</b>	<b>203.89</b>	<b>205.65</b>
<b>Agriculture Forestry &amp; Fishery</b>	<b>221.91</b>	<b>212.84</b>	<b>219.00</b>
1 Wheat	232.52	210.62	206.14
2 Maize	188.84	187.54	188.60
3 Rice	179.08	162.53	163.71
4 Sorghum/Jowar	304.45	289.73	292.62
5 Millet/Bajra	173.13	159.44	172.47
6 Vegetables	236.30	188.58	262.99
7 Fresh Fruits	258.23	226.58	242.95
8 Dry Fruits	208.07	232.48	237.25
9 Cotton Seeds	209.33	203.39	215.48
10 Other Oil Seeds	172.46	172.36	157.14
11 Edible Roots/ Potatoes	400.84	150.80	115.50
12 Stimulant And Spice Crops	371.86	281.74	286.93
13 Pulses	190.93	209.71	209.56
14 Sugar Crops	267.92	286.29	286.29
15 Fibre Crops	209.71	165.63	172.53
16 Unmanufactured Tobacco	195.81	217.50	217.50
17 Poultry	219.86	167.92	189.61
18 Milk From Bovine Animals	230.05	251.69	251.69
19 Eggs	173.18	189.76	170.54
20 Raw Animal Material/Wool	157.45	177.10	177.10
21 Hides And Fur Skins, Raw	145.57	159.92	159.72
22 Fuel Wood In Logs	242.38	259.53	259.53
23 Fishes Live Fresh Or Chilled	244.31	286.70	283.89
<b>Ores/Minerals, Gas &amp; Elect.</b>	<b>243.12</b>	<b>246.08</b>	<b>245.66</b>
24 Coal Not Agglomerated	223.53	223.53	223.53
25 Natural Gas Liquefied	203.39	201.62	200.74
26 Salt & Pure Sodium Chloride	231.42	247.16	248.84
27 Electrical Energy	287.44	295.61	295.61
<b>Food, Beverages, Tobacco, Textiles</b>	<b>202.07</b>	<b>205.27</b>	<b>205.98</b>
28 Meat Of Animals	241.31	260.18	260.64
29 Vegetables & Fruit Juices	191.62	198.31	199.28
30 Dried Fruits & Nuts	218.45	229.85	228.25
31 Fruit Juices	166.33	173.34	174.06
32 Vegetable Oil Refined	164.58	158.10	155.23
33 Vegetable Ghee	142.54	128.57	124.33
34 Oil Cakes	207.80	186.18	200.07
35 Processed Liquid Milk	219.13	253.81	251.52
36 Milk And Cream In Solid Form	207.76	221.70	221.70
37 Ice Cream	209.79	219.91	219.91
38 Dairy Products N.E.C	228.17	239.38	243.80
39 Wheat Flour	211.80	198.06	194.97
40 Other Cereal Flour	140.44	144.94	146.98
41 Sugar Refined	201.00	204.82	220.03
42 Chocolate	99.19	99.19	99.19
43 Sugar Confectionary	102.28	102.28	102.28
44 Coffee And Tea	198.66	195.98	203.67
45 Spices	191.57	189.66	189.90
46 Other Food Products	308.98	294.23	294.23
47 Mineral Water	184.22	187.86	187.86
48 Beverages	161.66	171.62	171.62
49 Tobacco Products	242.41	290.52	290.52
50 Cotton Yarn	201.07	170.43	170.12
51 Nylon Yarn	167.97	150.22	150.22
52 Blended Yarn	193.66	182.56	182.72
53 Woven Fabrics	226.82	258.39	258.39
54 Cotton Fabrics	193.10	201.34	201.34
55 Other Fabrics	192.36	212.61	212.61

<b>Table A11: Wholesale Price Index Numbers by Major Groups and Composite Commodities</b>				
		<b>Index</b>		
<b>Items and Specifications</b>		<b>Apr-14</b>	<b>Mar-15</b>	<b>Apr-15</b>
56 Silk And Rayon Fabrics		165.36	179.89	181.33
57 Towels		242.19	265.62	265.62
58 Blankets		219.66	235.86	235.86
59 Bed Sheets		242.12	255.40	256.29
60 Quilts		172.42	196.84	196.84
61 Woolen Carpets		113.69	132.14	132.14
62 Synthetic Carpets		116.10	126.27	126.27
63 Hosiery Products		196.90	216.06	218.08
64 Ready Made Garments		169.94	186.77	186.77
65 Leather With Out Hairs		203.40	207.72	215.06
66 Other Leather N.E.C		314.19	212.39	212.39
67 Footwear's		134.22	134.22	134.22
<b>Other Transportable Goods</b>		<b>213.45</b>	<b>180.97</b>	<b>181.06</b>
68 Timber		178.07	202.05	202.05
69 Printing Paper		177.81	162.79	162.72
70 Hard Board		229.17	197.92	197.92
71 Coke		163.45	163.45	163.45
72 Motor Sprit		182.98	118.71	125.47
73 Diesel Oil		267.04	175.03	178.33
74 Kerosene Oil		288.01	178.93	178.93
75 Furnace Oil		165.65	100.86	94.70
76 Mobil Oil		197.73	200.74	200.74
77 Chemicals		176.47	196.79	195.03
78 Dying Materials		143.77	146.55	146.55
79 Fertilizers		264.50	273.84	272.54
80 Pesticides		237.58	290.39	293.74
81 Insecticides		177.92	142.24	143.34
82 Paints & Varnishes		268.31	291.17	291.69
83 Medicines		140.59	145.19	145.19
84 Soaps & Detergent		181.82	178.14	178.14
85 Auto Tyres		185.73	192.43	191.36
86 Plastic Products		202.70	222.47	222.47
87 Glass Sheets		209.86	228.76	228.76
88 Other Glass Articles		214.09	243.63	243.63
89 Ceramics And Sanitary		199.50	218.62	219.25
90 Bricks Blocks And Tiles		197.05	208.60	209.76
91 Cement		207.45	206.83	206.86
92 Bed Foams		149.67	156.67	156.67
93 Matches		143.20	143.20	143.20
<b>Metal Product Machinery &amp; Equip</b>		<b>170.06</b>	<b>173.00</b>	<b>172.88</b>
94 Pig Iron		128.97	128.97	128.97
95 Steel Bars & Sheets		138.13	140.43	140.03
96 Pipe Fittings		168.33	191.94	191.94
97 Steel Products		170.24	173.80	173.88
98 Engines And Motors		109.07	109.07	109.07
99 Vacuum Pumps		115.39	115.39	115.39
100 Air Conditioners		181.12	196.18	197.69
101 Cultivators		226.90	219.76	219.76
102 Chuff Cutter		149.20	149.20	149.20
103 Tractors		214.54	214.54	214.54
104 Lathe Machines		208.81	208.81	208.81
105 Concrete Mixer		138.83	138.83	138.83
106 Refrige,Wash& Sew Mach, Iron,Fan		195.02	198.16	198.20
107 Electrical Wires		178.73	190.87	190.87
108 Lighting Equipments		164.75	168.19	168.19
109 Radio And Television		126.49	126.49	126.49
110 Motor Vehicles		182.75	183.03	183.03
111 Motor Cycles		126.48	128.20	125.89
112 Bicycles		182.84	185.63	185.63

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

Period		CPI			WPI			SPI *
		Overall	Food	Non-food	Overall	Food	Non-Food	
2008-09		117.03	123.12	113.38	118.93	119.68	118.45	123.26
2009-10		128.85	139.05	122.73	135.40	136.85	134.48	139.84
2010-11		146.45	164.10	135.87	164.17	159.26	167.28	164.02
2011-12		162.57	182.20	150.80	181.28	181.32	181.26	178.67
2012-13		174.53	195.18	162.16	194.61	197.21	192.95	189.64
2013-14		189.58	212.74	175.69	210.48	213.04	208.85	208.66
2012	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	205.11	216.67
	Nov	198.79	222.74	184.44	212.26	227.29	202.73	214.45
	Dec	196.79	218.08	184.03	208.25	223.48	198.59	211.76
2015	Jan	196.95	217.10	184.87	206.11	223.48	195.09	209.89
	Feb	195.13	213.15	184.33	203.86	222.26	192.19	206.98
	Mar	195.57	214.25	184.37	203.89	222.11	192.33	207.05
	Apr	198.16	217.26	186.71	205.65	225.38	193.13	208.42

\*: all groups combined

<b>Table A13: International Commodity Prices/ Indices</b>				
	<b>Jan-15</b>	<b>Feb-15</b>	<b>Mar-15</b>	<b>Apr-15</b>
<b>Energy</b>				
Crude Oil (US\$ per barrel) *	47.5	54.9	52.8	57.4
IMF Energy Index (2005 = 100)	96.7	108.3	104.3	109.5
WB Energy Index (2010 = 100) @	63.1	70.4	68.3	72.5
<b>Food</b>				
Rice (\$/MT)	409.7	409.5	400.7	392.4
Wheat (\$/MT)	248.5	237.2	230.8	223.3
Sugar (US cent/ pound)	15.1	14.5	12.8	12.9
Palm Oil (\$/MT)	641.6	634.4	607.7	591.8
Soybean Oil (\$/MT)	707.9	697.9	683.4	691.7
<b>Non-Food Non-Energy</b>				
Cotton Outlook 'A' Index #	67.4	69.8	69.4	71.7
IMF Metal Price Index (2005 = 100)	140.3	137.3	134.6	133.8
Copper (\$/MT)	5,830.5	5,729.3	5,939.7	6,042.1
Aluminum (\$/MT)	1,814.7	1,817.8	1,773.9	1,819.2
Iron Ore (\$ cents/dry MT)	67.4	62.7	56.9	51.2
Tin (\$/MT)	19,454.1	18,233.9	17,421.9	15,900.9
Nickle (\$/MT)	14,849.2	14,573.8	13,755.5	12,830.9
Zinc (\$/MT)	2,113.0	2,097.8	2,028.7	2,212.7
Lead (\$/MT)	1,843.1	1,795.7	1,792.5	2,005.4
Uranium (\$/MT)	36.1	38.2	39.4	38.7
DAP (\$/MT)	484.3	485.3	479.0	464.0
Urea (\$/MT)	319.2	297.0	271.0	259.0
Source: IMF and World Bank				
\$/MT = US\$ per metric ton.				
* Crude Oil (Petroleum), simple average of three spot prices; Dated Brent, West Texas Intermediate, and the Dubai fateh				
# Middling 1-3/32 inch staple, Liverpool Index "A", average of the cheapest Cts/lb five of fourteen styles, CIF Liverpool (Cotton Outlook, Liverpool). From January 1968 to May 1981 strict middling 1-1/16 inch staple. Prior to 1968, Mexican 1-1/16.2/				
DAP: Diammonium Phosphate				
@ World Bank commodity index for low and middle income countries				

**Table 14. CPI Data Series Original and Seasonally Adjusted**

<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	199.81
Nov	161.25	172.42	191.21	198.79
Dec	160.12	172.82	188.68	196.79
Jan	162.58	175.70	189.60	196.95
Feb	163.07	175.11	189.00	195.13
Mar	164.98	175.82	190.82	195.57
Apr	168.00	177.74	194.06	198.16
May	169.93	178.65	193.55	
Jun	169.99	179.94	194.74	
<b>Seasonally Adjusted Series</b>				
Jul	154.33	169.07	182.65	197.32
Aug	155.75	169.80	184.25	197.18
Sep	157.32	171.15	183.77	197.85
Oct	159.21	171.38	186.94	197.79
Nov	160.30	171.37	189.98	197.56
Dec	160.95	173.75	189.69	197.81
Jan	162.92	176.06	189.98	197.33
Feb	164.72	176.94	191.03	197.24
Mar	166.25	177.23	192.40	197.21
Apr	168.07	177.78	194.11	198.21
May	170.66	179.49	194.48	
Jun	170.70	180.75	195.63	

<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	223.74
Nov	183.26	193.03	218.16	222.74
Dec	179.21	192.97	210.89	218.08
Jan	181.90	196.58	210.81	217.10
Feb	180.69	194.05	208.74	213.15
Mar	183.46	195.06	213.11	214.25
Apr	187.43	197.74	217.33	217.26
May	187.75	200.00	214.75	
Jun	187.35	202.11	216.98	
<b>Seasonally Adjusted Series</b>				
Jul	173.92	189.56	206.72	221.06
Aug	174.57	189.35	208.72	220.33
Sep	177.10	190.46	205.45	220.14
Oct	179.67	190.11	208.79	219.71
Nov	180.63	190.13	214.78	219.35
Dec	180.62	194.54	212.56	219.70
Jan	182.86	197.61	211.93	218.25
Feb	184.63	198.40	213.53	218.11
Mar	186.08	197.96	216.35	217.60
Apr	188.18	198.48	218.18	218.15
May	189.60	202.13	217.13	
Jun	189.41	204.41	219.44	



<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	100.25	100.29	100.51	100.37	100.36
Aug	100.73	100.76	100.79	100.77	100.76
Sep	100.75	100.75	100.77	100.78	100.76
Oct	100.99	101.00	101.01	101.02	101.01
Nov	100.59	100.61	100.65	100.62	100.62
Dec	99.48	99.46	99.47	99.49	99.47
Jan	99.79	99.80	99.80	99.81	99.80
Feb	99.00	98.96	98.94	98.93	98.96
Mar	99.24	99.20	99.18	99.17	99.20
Apr	99.96	99.98	99.97	99.97	99.97
May	99.57	99.53	99.52		99.54
Jun	99.58	99.55	99.55		99.56

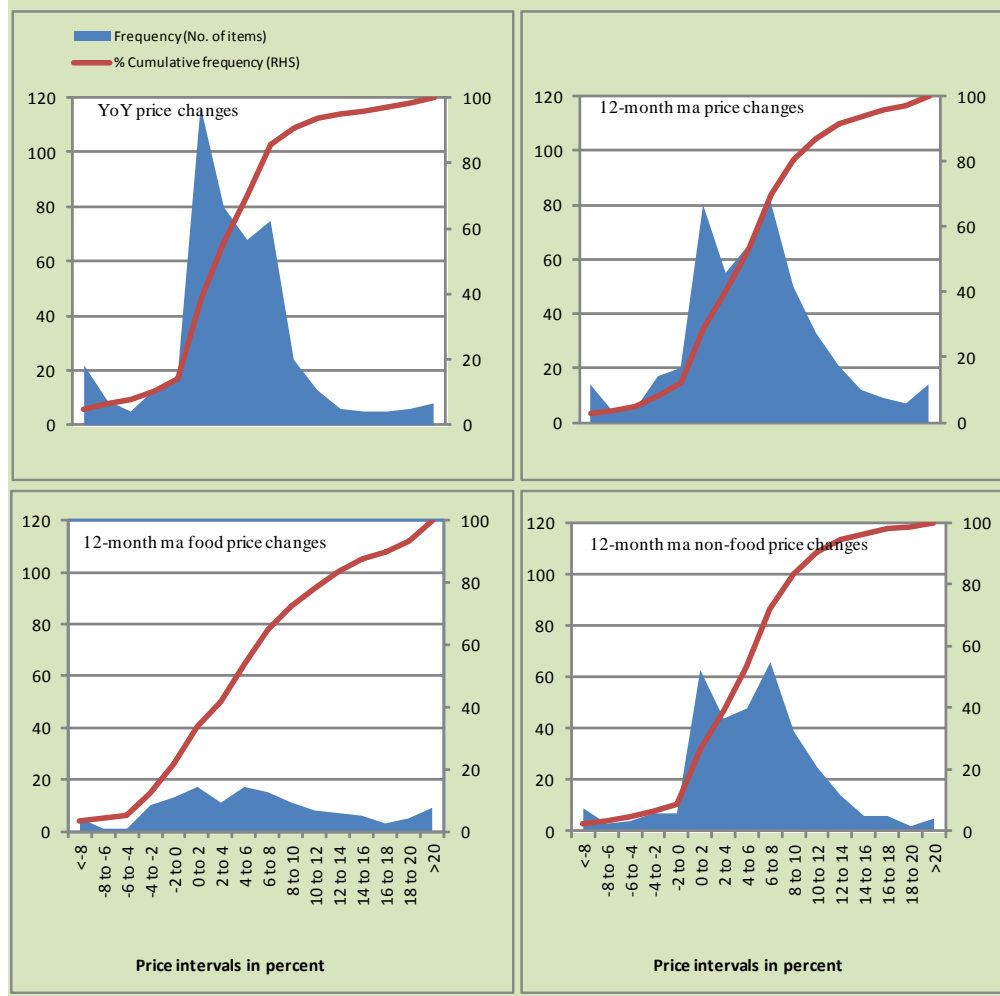
<b>Table 17: CPI Food Monthly &amp; Average Seasonal Factors</b>					
<b>Period</b>	<b>FY12</b>	<b>FY13</b>	<b>FY14</b>	<b>FY15</b>	<b>Average</b>
Jul	100.51	100.61	100.71	100.79	100.66
Aug	101.58	101.65	101.70	101.69	101.65
Sep	101.73	101.75	101.77	101.81	101.77
Oct	101.90	101.87	101.83	101.84	101.86
Nov	101.46	101.53	101.57	101.55	101.52
Dec	99.22	99.20	99.22	99.26	99.22
Jan	99.48	99.48	99.47	99.47	99.47
Feb	97.86	97.81	97.76	97.73	97.79
Mar	98.59	98.54	98.50	98.46	98.52
Apr	99.60	99.63	99.61	99.59	99.61
May	99.03	98.95	98.91		98.96
Jun	98.91	98.88	98.88		98.89

<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	0.21
Nov	0.29	-0.39	1.27	-0.51
Dec	-0.70	0.23	-1.32	-1.01
Jan	1.54	1.67	0.49	0.08
Feb	0.30	-0.34	-0.32	-0.92
Mar	1.17	0.41	0.96	0.23
Apr	1.83	1.09	1.70	1.32
May	1.15	0.51	-0.26	
Jun	0.04	0.72	0.61	
<b>Seasonally Adjusted Series</b>				
Jul	0.61	-0.95	1.05	0.87
Aug	0.92	0.43	0.88	-0.07
Sep	1.01	0.80	-0.26	0.34
Oct	1.20	0.13	1.72	-0.03
Nov	0.69	-0.01	1.63	-0.12
Dec	0.40	1.39	-0.15	0.13
Jan	1.22	1.33	0.15	-0.24
Feb	1.11	0.50	0.55	-0.04
Mar	0.93	0.16	0.72	-0.02
Apr	1.09	0.31	0.89	0.51
May	1.55	0.96	0.19	
Jun	0.02	0.70	0.59	

<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	-0.17
Nov	0.10	-0.33	2.61	-0.45
Dec	-2.21	-0.03	-3.33	-2.09
Jan	1.50	1.87	-0.04	-0.45
Feb	-0.66	-1.29	-0.98	-1.82
Mar	1.53	0.52	2.10	0.52
Apr	2.16	1.37	1.98	1.41
May	0.17	1.15	-1.19	
Jun	-0.21	1.05	1.04	
<b>Seasonally Adjusted Series</b>				
Jul	1.30	0.08	1.13	0.74
Aug	0.37	-0.11	0.97	-0.33
Sep	1.45	0.59	-1.57	-0.09
Oct	1.45	-0.19	1.63	-0.20
Nov	0.54	0.01	2.87	-0.16
Dec	0.00	2.32	-1.04	0.16
Jan	1.24	1.58	-0.29	-0.66
Feb	0.97	0.40	0.75	-0.07
Mar	0.79	-0.22	1.32	-0.23
Apr	1.13	0.26	0.84	0.25
May	0.75	1.84	-0.48	
Jun	-0.10	1.12	1.07	



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



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

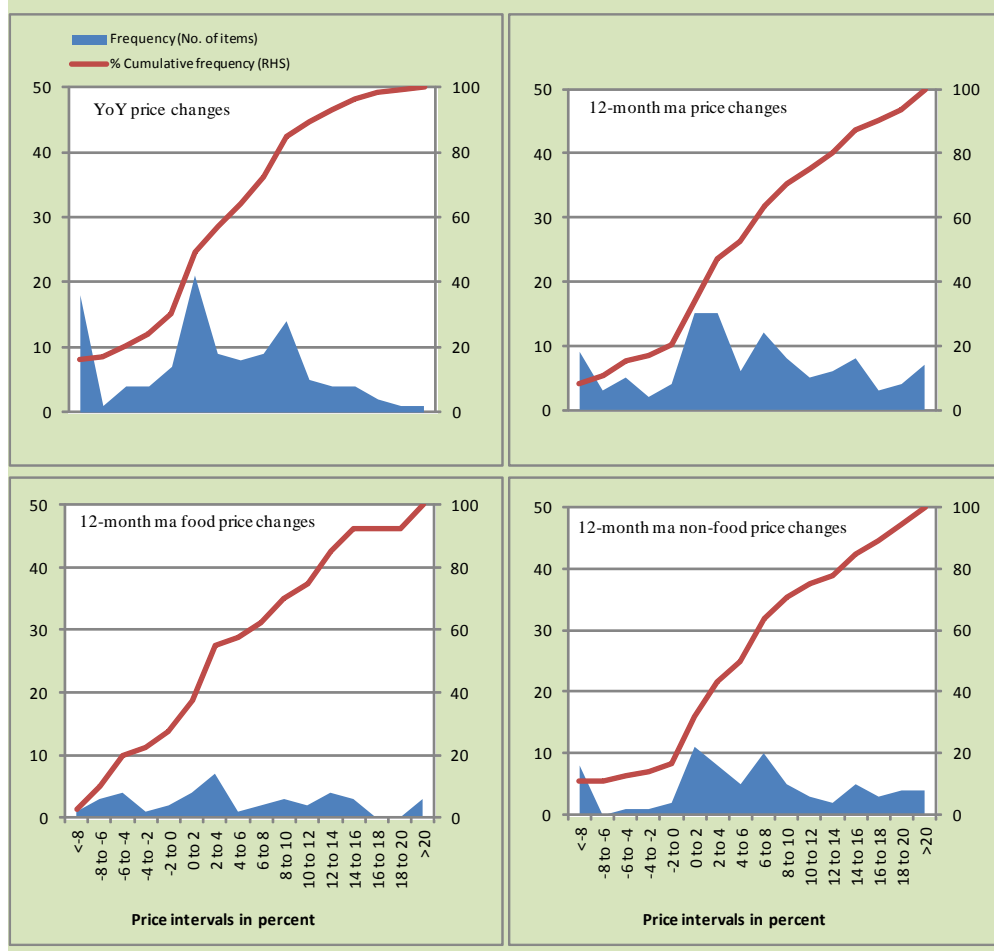
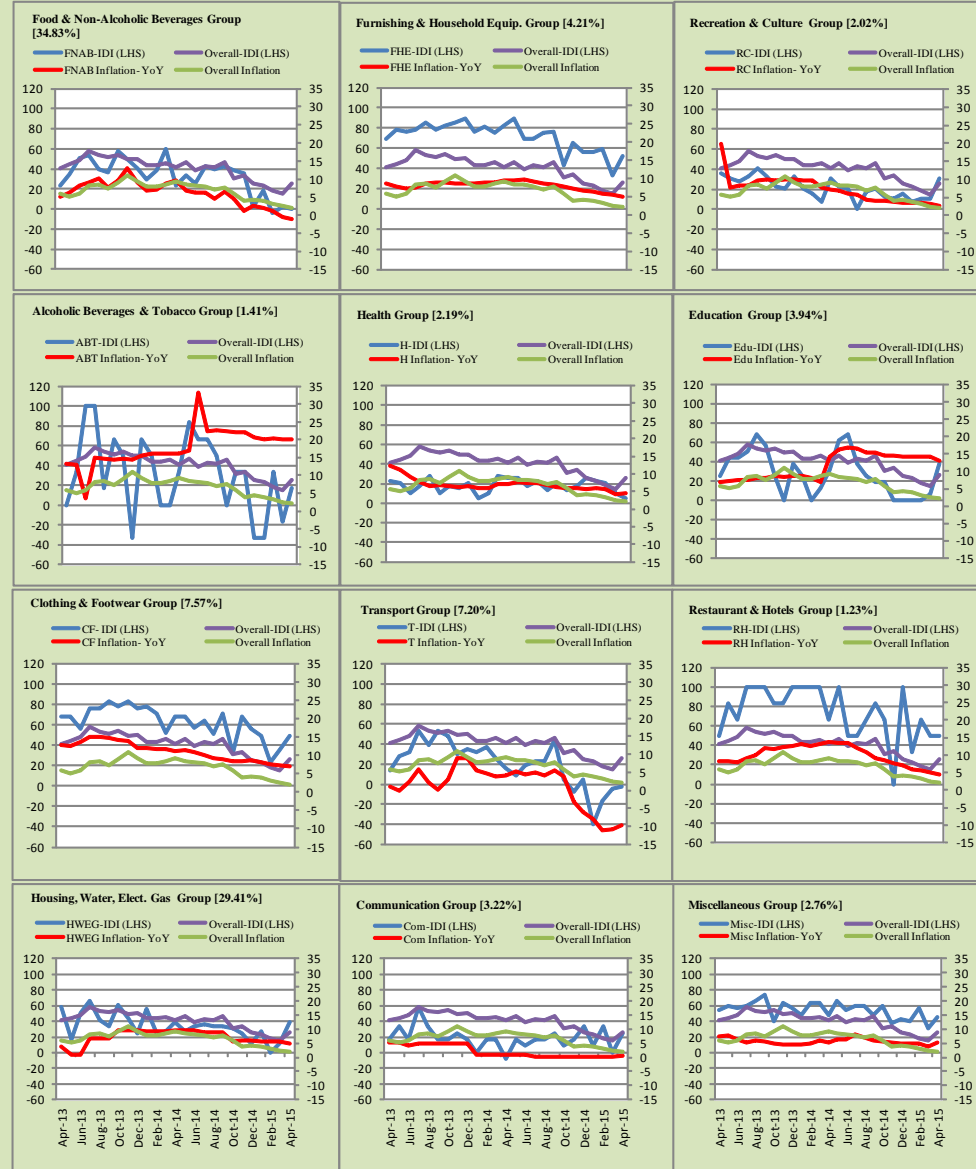


Figure A4: Group-wise/Overall Inflation Diffusion Index (IDI) and respective/overall YoY Inflation (percent)



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

## **Annexure B**

### **Technical Notes**

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

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

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

2. Base year for all the indices is the year 2007-08.
3. CPI basket contains 487 consumers' goods; WPI basket contains 463 items; SPI contains 53 items.
4. YoY inflation is the percent change of an index in a given month over the index in the same month of the last year. It is computed as follows:

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

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

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

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

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



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

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

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

8. Core Inflation is defined as the persistent component of measured inflation that excludes volatile and controlled prices. It reflects the normal supply and demand conditions in the economy. Core inflation is computed by the following three methods:
- a) Non-food, Non-energy inflation (NFNE inflation); it is computed by excluding food group and energy items (kerosene oil, petrol, diesel, CNG, electricity and natural gas) from the CPI basket.
  - b) 20% trimmed-mean inflation; it is computed through the following steps:
    - 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.