

# **Inflation Monitor**

**December 2012**



**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 7.9 percent on year-on-year basis in December 2012 as compared to 6.9 percent in the previous month and 9.7 percent in the corresponding month of last year.
2. CPI inflation on month-on-month basis is recorded at 0.2 percent in December 2012 as compared to -0.4 percent in the previous month and -0.7 percent in the corresponding month of last year. Seasonally adjusted month-on-month CPI inflation increased to 1.4 percent in December 2012 as compared 0.0 percent in the previous month.
3. Core inflation (trimmed) on year-on-year basis increased to 9.2 percent in December 2012 as compared to 8.8 percent in the previous month and it was 10.6 percent in the corresponding month of last year.
4. On month-on-month basis, the Core inflation (trimmed) increased to 0.3 percent in December 2012 as compared to 0.2 percent in previous month. It was 0.3 percent in the corresponding month of last year.
5. Non-food, non-energy inflation measured by CPI Core (NFNE) on year-on-year basis remained same to 9.8 percent in December 2012 as compared to previous month. It was 10.2 percent in the corresponding month of last year.
6. Core NFNE inflation on month-on-month basis increased to 0.5 percent in December 2012 when compared to 0.2 percent a month earlier. The same rate of change in Core NFNE was observed in December 2011.
7. WPI inflation on year-on-year basis increased to 9.6 percent in December 2012 when compared to 7.7 percent a month earlier. During December 2011, WPI inflation was recorded at 8.3%.

8. WPI inflation on month-on-month basis increased to 0.4 percent in December 2012 as compared to -0.4 percent a month earlier. It was -1.3 percent in December 2011.
9. SPI inflation on year-on-year basis increased to 7.4 percent in December 2012 as compared to 5.5 percent in the previous month. It was 5.1 percent in the corresponding month of last year.
10. SPI inflation on month-on-month basis is recorded at 0.3 percent in December 2012 as compared to 0.0 percent a month earlier and -1.4 percent in December 2011.

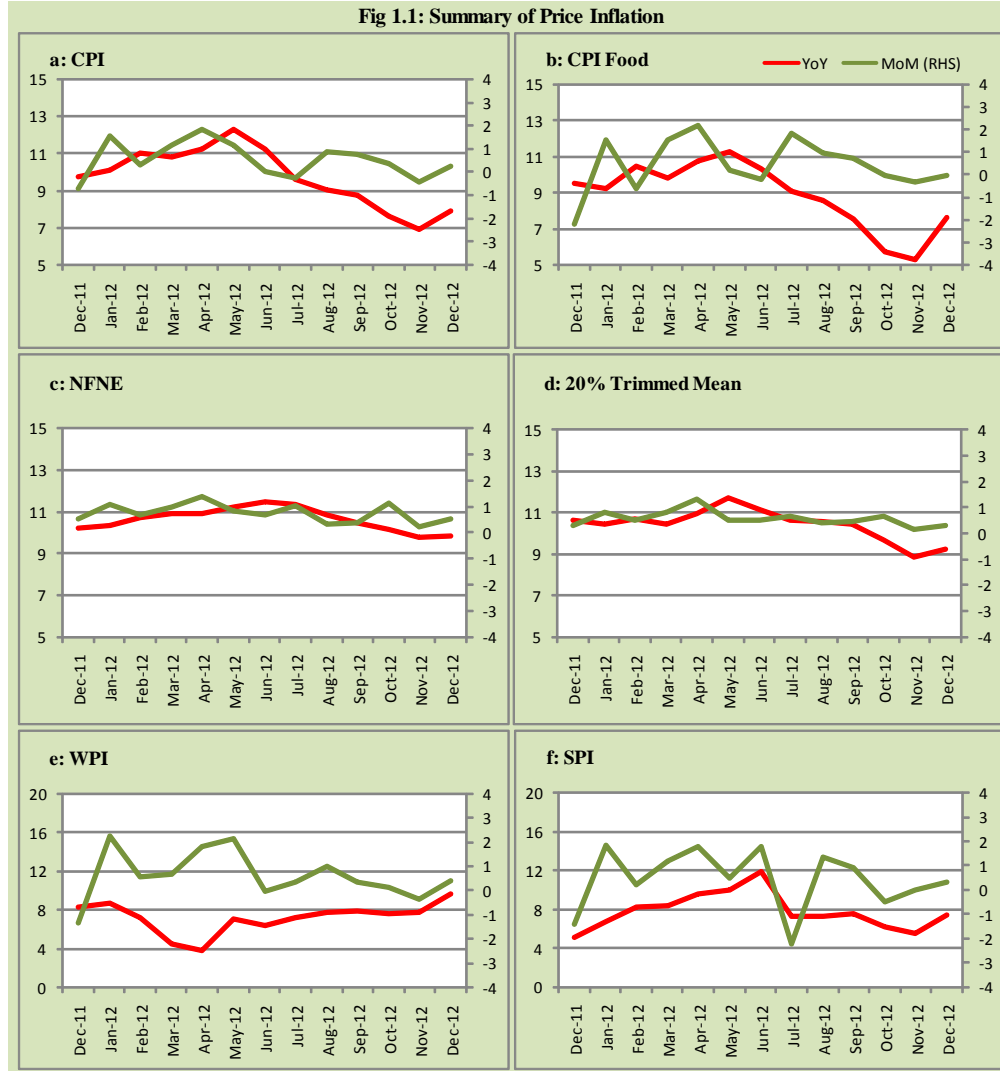
**Table 1.1 Inflation Trends (percent) (Base 2007- 08 = 100)**

Period	CPI Inflation						Core Inflation				WPI Inflation		SPI** Inflation	
	General		Food		Non-food		NFNE*		Trimmed		YoY	MoM	YoY	MoM
	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM				
Dec-11	9.7	-0.7	9.5	-2.2	9.9	0.4	10.2	0.5	10.6	0.3	8.3	-1.3	5.1	-1.4
Jan-12	10.1	1.5	9.2	1.5	10.7	1.6	10.3	1.1	10.4	0.8	8.7	2.3	6.8	1.8
Feb-12	11.0	0.3	10.5	-0.7	11.5	1.0	10.7	0.7	10.7	0.5	7.2	0.6	8.3	0.2
Mar-12	10.8	1.2	9.8	1.5	11.5	0.9	10.9	1.0	10.5	0.8	4.5	0.7	8.4	1.2
Apr-12	11.3	1.8	10.7	2.2	11.6	1.6	10.9	1.4	11.0	1.3	3.8	1.8	9.7	1.8
May-12	12.3	1.1	11.3	0.2	13.0	1.9	11.2	0.8	11.7	0.5	7.1	2.1	10.1	0.5
Jun-12	11.3	0.0	10.3	-0.2	12.0	0.2	11.5	0.7	11.1	0.5	6.4	0.0	11.9	1.8
Jul-12	9.6	-0.2	9.1	1.8	10.0	-1.7	11.3	1.0	10.7	0.7	7.2	0.4	7.3	-2.2
Aug-12	9.1	0.9	8.5	0.9	9.4	0.9	10.8	0.3	10.6	0.4	7.7	1.0	7.3	1.4
Sep-12	8.8	0.8	7.6	0.7	9.7	0.9	10.5	0.4	10.4	0.5	7.8	0.3	7.5	0.9
Oct-12	7.7	0.4	5.8	-0.1	9.0	0.7	10.2	1.2	9.7	0.7	7.5	0.1	6.2	-0.5
Nov-12	6.9	-0.4	5.3	-0.3	8.1	-0.4	9.8	0.2	8.8	0.2	7.7	-0.4	5.5	0.0
Dec-12	7.9	0.2	7.7	0.0	8.1	0.4	9.8	0.5	9.2	0.3	9.6	0.4	7.4	0.3

\* NFNE is Non-food non-energy

\*\* SPI for all income groups combined

Fig 1.1: Summary of Price Inflation



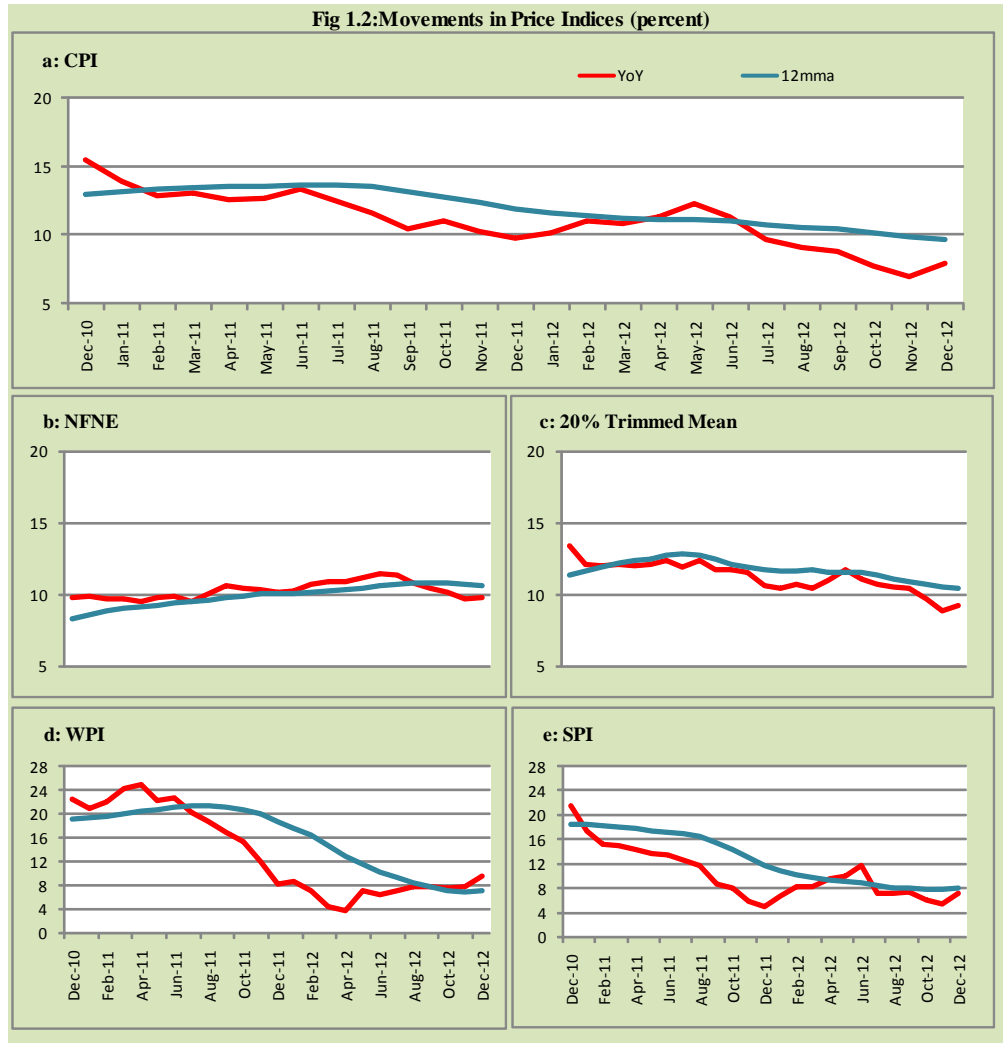
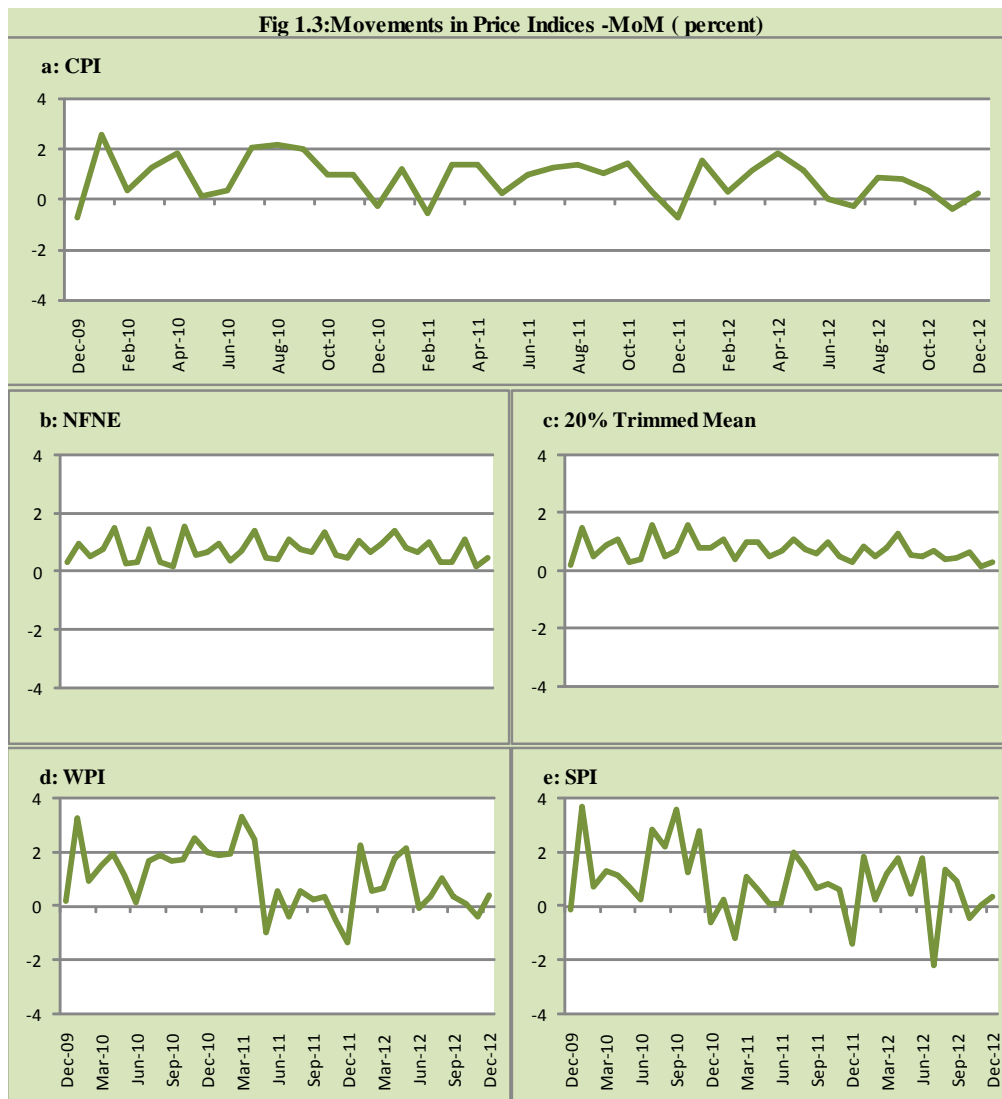
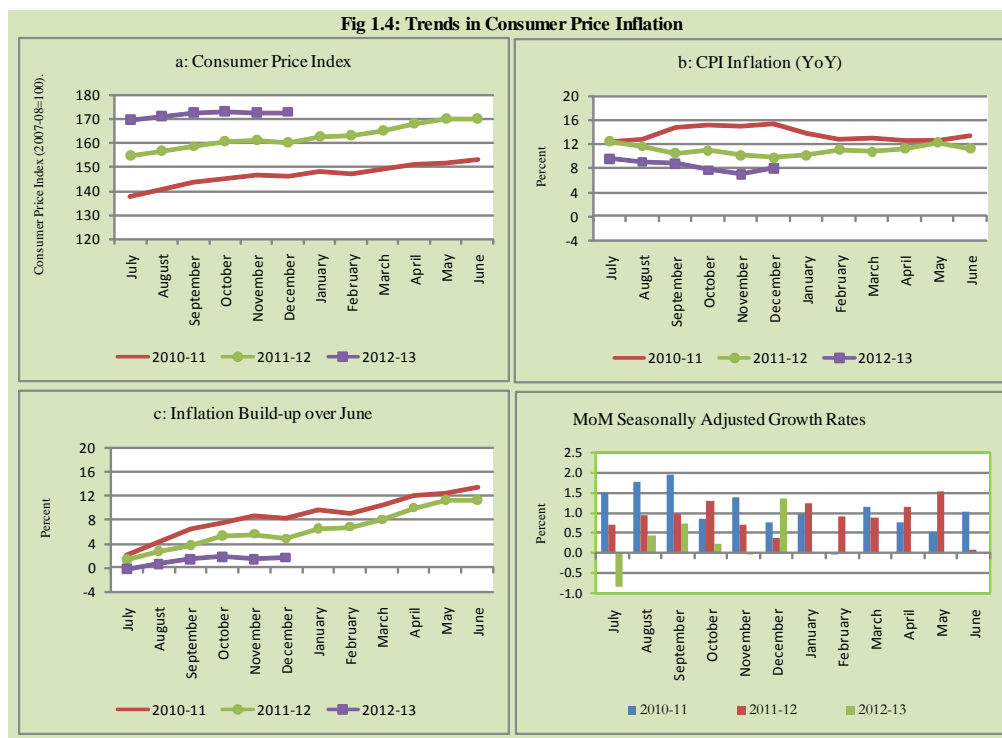




Fig 1.3: Movements in Price Indices -MoM ( percent)



**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 mix trend during December 2012. Among these five cities, the lowest inflation was observed in Peshawar at 6.4 percent while the highest inflation was observed in Quetta at 8.6 percent (Table A6 of annexure-A).

**Table 2.1 City-wise Inflation of Selected Cities (percent)**

	Dec-11		Nov-12		Dec-12	
	MoM	YoY	MoM	YoY	MoM	YoY
<b>Overall CPI</b>	-0.7	9.7	-0.4	6.9	0.2	7.9
Islamabad	-0.3	8.3	-0.9	7.1	0.0	7.4
Karachi	-0.6	9.1	-0.4	7.4	0.3	8.4
Lahore	-0.9	8.3	-0.2	7.6	-0.1	8.5
Peshawar	-1.0	7.9	-0.4	4.9	0.4	6.4
Quetta	-0.1	7.8	0.7	8.7	-0.2	8.6

### 3. Income Group wise Inflation

Income group- wise data showed that income group above Rs. 35,000 suffered higher inflation than the overall inflation in CPI basket during December 2012 for food group. The lowest income group (Up to Rs. 8, 000) has the lowest inflation in food group during the month of December 2012 (Table A7 of annexure-A).

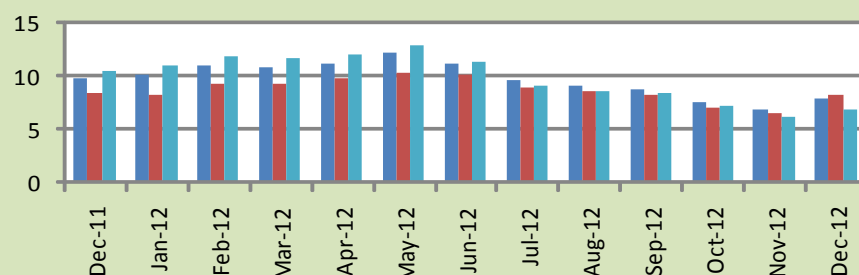
**Table 3.1 Income Group- wise Inflation (YoY)**

Income Groups	General			Food			Non-food		
	Dec-11	Nov-12	Dec-12	Dec-11	Nov-12	Dec-12	Dec-11	Nov-12	Dec-12
<b>All Groups Combined</b>	9.7	6.9	7.9	9.5	5.3	7.7	9.9	8.1	8.1
Up to Rs. 8,000	8.4	6.6	8.2	7.1	4.4	7.1	10.2	9.5	9.6
Rs. 8,001- 12,000	9.0	7.8	9.3	8.0	4.8	7.3	10.1	11.4	11.5
Rs. 12,001- 18,000	9.2	7.7	9.1	8.6	5.1	7.5	9.8	10.5	10.6
Rs. 18,001- 35,000	9.5	6.4	7.6	9.3	5.4	7.8	9.7	7.4	7.4
Above Rs. 35,000	10.6	6.2	6.9	10.9	5.8	7.9	10.4	6.5	6.4

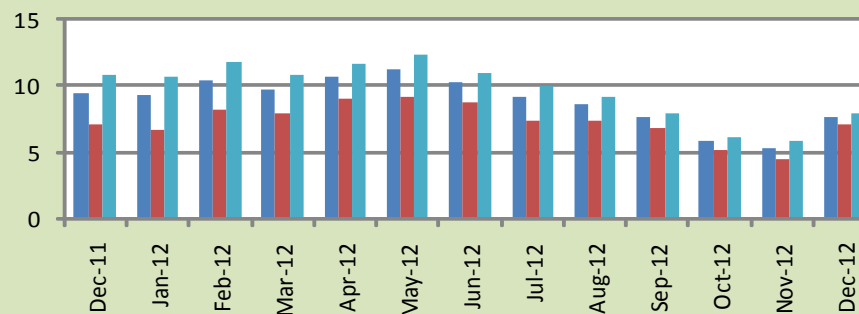
**Fig 3.1: Income Group- wise Inflation**

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

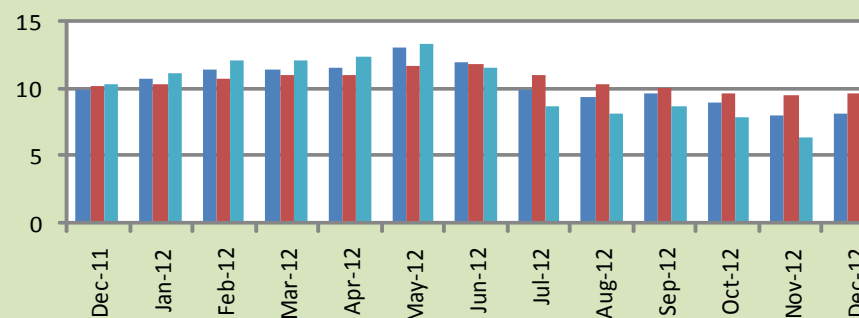
■ All Groups combined ■ Upto Rs. 8,000 ■ Above Rs. 35,000



**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 40.58 percent during December 2012 from 32.78 percent in November 2012. It was 40.92 percent in December 2011.

The weighted contribution of non-food group showed decrease to touch 59.42 percent in December 2012 from 67.22 percent in November 2012.

**Table 4.1 Weighted Contribution to CPI Inflation (YoY)**

Period	Food	Clothing & Footwear	Housing, Water, Elect, Gas & Other Fuel	Transport	Education	Others
Dec-11	40.92	10.44	18.06	10.09	3.95	16.53
Jan-12	38.66	10.37	20.73	10.51	3.64	16.08
Feb-12	39.57	9.23	19.19	12.30	3.73	15.99
Mar-12	38.15	10.69	18.96	12.82	3.79	15.59
Apr-12	40.06	9.63	18.88	12.79	4.01	14.62
May-12	38.26	9.17	23.72	10.54	3.49	14.82
Jun-12	38.05	9.65	25.43	6.22	3.60	17.04
Jul-12	40.17	11.54	15.53	9.68	3.66	19.42
Aug-12	39.99	12.01	12.97	12.64	3.85	18.55
Sep-12	36.69	11.86	13.06	16.16	3.86	18.38
Oct-12	32.26	13.20	14.34	15.11	4.52	20.57
Nov-12	32.78	14.79	15.75	10.05	4.90	21.74
Dec-12	40.58	14.29	13.76	8.43	4.39	18.56

## 5. Inflation Diffusion Index

<b>Table 5.1 Inflation Diffusion Index - based on MoM change</b>													
	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12
General	37.7	51.5	51.0	57.6	53.1	55.6	27.0	41.4	41.4	48.6	54.7	39.6	49.6
Food & Non-Alcoholic Beverages	9.4	34.2	41.6	40.2	37.6	43.4	-23.4	25.4	47.8	44.2	38.3	19.1	33.0
Alcoholic Beverages & Tobacco	16.7	16.7	-16.7	33.3	66.7	50.0	33.3	100.0	83.3	83.3	33.3	83.3	83.3
Clothing & Footwear	69.5	59.3	49.2	74.6	62.7	76.3	44.1	62.7	76.3	64.4	84.7	79.7	89.8
Housing, Water, Elect, Gas & other Fuels	27.8	69.4	36.1	36.1	58.3	38.9	33.3	33.3	30.6	38.9	50.0	22.2	38.9
Furnishing & Household Equip. Maintenance etc	88.4	87.0	82.6	85.5	92.8	87.0	78.3	68.1	20.3	81.2	79.7	69.6	76.8
Health	28.2	33.3	41.0	38.5	25.6	30.8	41.0	33.3	23.1	41.0	23.1	33.3	23.1
Transport	41.9	53.5	55.8	79.1	48.8	44.2	20.9	39.5	41.9	37.2	48.8	11.6	37.2
Communication	0.0	8.3	33.3	16.7	41.7	8.3	50.0	-25.0	8.3	16.7	50.0	33.3	50.0
Recreation & Culture	12.8	38.5	28.2	46.2	35.9	74.4	17.9	17.9	23.1	10.3	35.9	17.9	20.5
Education	-43.8	25.0	50.0	56.3	50.0	31.3	0.0	25.0	43.8	31.3	43.8	12.5	25.0
Restaurant & Hotels	83.3	83.3	100.0	83.3	100.0	100.0	66.7	100.0	33.3	83.3	100.0	66.7	100.0
Miscellaneous	68.6	65.7	77.1	74.3	51.4	54.3	48.6	60.0	60.0	54.3	80.0	65.7	65.7
NFNE	47.3	58.3	54.7	63.9	57.4	57.7	44.7	47.0	38.8	49.1	62.1	46.4	55.3

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	Dec-11		Nov-12		Dec-12	
			YoY	MoM	YoY	MoM	YoY	MoM
1	Wheat	10 Kg	1.27	2.88	10.42	2.12	10.31	2.78
2	Wheat Flour Bag	10 Kg	0.26	1.16	10.66	0.95	10.34	0.87
3	Rice Basmati Sup. Qlty.	Kg	10.53	-0.53	19.33	1.57	21.61	1.36
4	Pulse Masoor (Washed)	Kg	-11.14	0.10	-5.15	-0.30	-5.74	-0.52
5	Pulse Moong (Washed)	Kg	-7.43	-0.66	-13.07	-2.04	-12.36	0.15
6	Pulse Mash (Washed)	Kg	-10.70	0.18	-9.20	-0.21	-9.73	-0.40
7	Pulse Gram	Kg	-1.39	-0.99	44.30	-2.03	44.45	-0.89
8	Vegetable Ghee (Loose)	Kg	8.59	0.21	1.20	-0.78	0.80	-0.19
9	Sugar Refined	Kg	-24.57	-17.44	-18.65	-0.16	-2.74	-1.30
10	Milk Fresh (Unboiled)	Ltr	20.04	0.55	11.76	1.03	11.89	0.66
11	Tea- Tapal Danedar	200 Gm	15.52	0.00	9.98	11.93	9.98	0.00
12	Beef With Bone Av. Qlty.	Kg	16.45	0.15	7.03	0.05	7.04	0.16
13	Mutton Av. Qlty.	Kg	20.34	0.52	7.13	0.13	6.64	0.05
14	Chicken Farm Broiler (Live)	Kg	7.03	-3.40	-0.36	7.69	14.44	10.95
15	Eggs Farm	Doz	14.09	6.84	24.70	6.49	26.53	8.41
16	Potatoes	Kg	-14.54	-22.14	1.70	-3.79	21.97	-6.62
17	Onion	Kg	-27.44	-27.60	-36.74	-14.76	-30.58	-20.55
18	Tomatoes	Kg	-0.12	-10.34	-41.86	-16.23	-35.53	-0.58
19	Ginger	Kg	-44.05	-12.35	-5.56	-12.52	1.52	-5.78
20	Garlic	Kg	-52.21	-17.08	-9.87	1.40	13.80	4.69

## 7. Global Commodity Prices

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

Item/ Group	Dec-11		Nov-12		Dec-12	
	YoY	MoM	YoY	MoM	YoY	MoM
<b>Overall</b>	8.0	-1.3	-3.0	-1.3	-0.8	1.0
Food	-8.7	-1.6	7.8	-0.9	10.5	0.8
Metals	-0.8	-0.6	-5.8	-0.7	0.3	5.8
Energy	17.3	-1.0	-4.7	-1.6	-3.5	0.2
Agricultural	-13.4	-3.7	-2.4	-0.6	3.1	1.8
Cotton	-43.3	-8.8	-22.7	-1.3	-12.7	3.1

Source: IMF

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

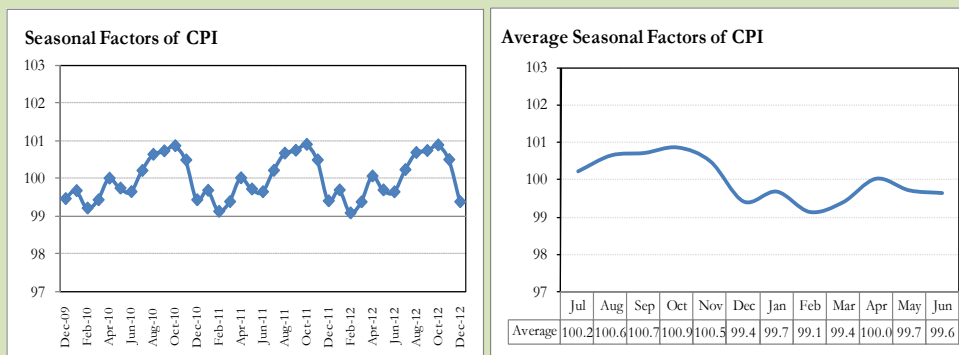
Seasonal adjustment is the process of estimating and removing the seasonal effects from a time series after decomposing it into seasonal, trend, cycle and irregular components. The purpose is to identify the different components of the time series and thus provide a better understanding of its underlying behavior. Seasonally adjusted changes are usually preferred for analyzing general price trends in the economy because they eliminate the effect of changes that normally occur at the same time and in about the same magnitude every year. Various statistical methods can be used to decompose a time series into its constituent components. The State Bank of Pakistan uses X-12- ARIMA Seasonal Adjustment Method for this purpose.

The changes in consumer prices are normally reported in terms of year-on-year and month-on-month basis. Seasonal adjustment is particularly useful for analyzing month-on-month changes. The monthly data series of Consumer Price Index (CPI) from July 2008 to December 2012 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.

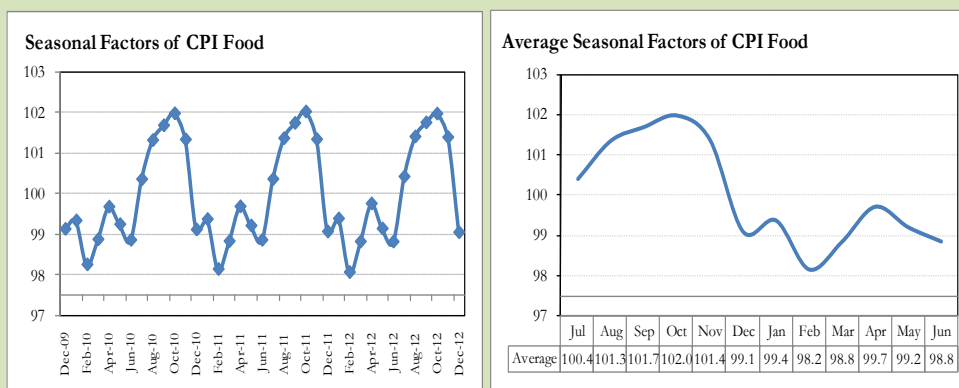


**Fig. 8.1 Seasonal Factors of CPI**



Note: Data Available in Annex Table 16.

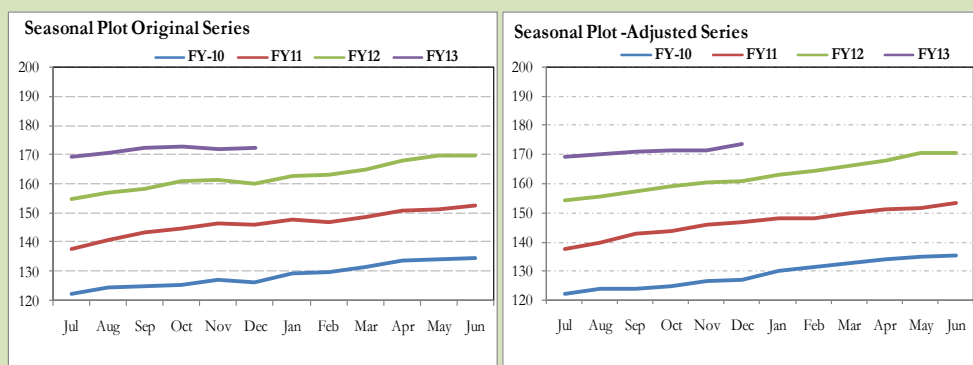
**Fig. 8.2 Seasonal Factors of CPI Food**



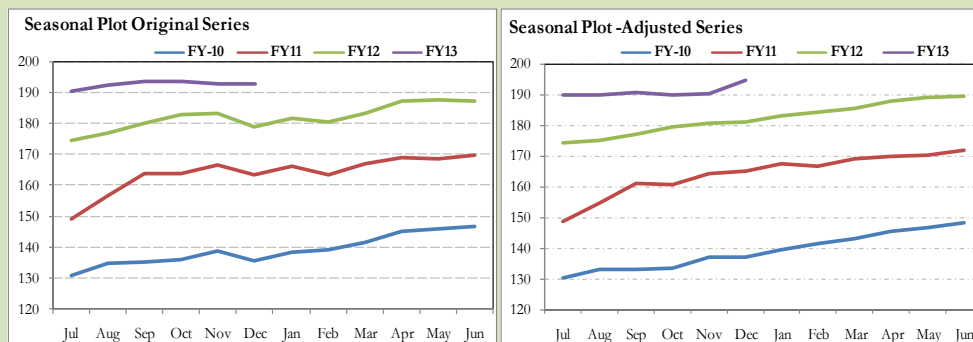
Note: Data Available in Annex Table 17.

Figure 8.3 & 8.4 shows 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 December 2012 stood at 173.89 against 172.82 in original series showing an increase of 1.07 on account of adjustment of downward seasonality in December 2012.

Seasonally adjusted CPI food group for December 2012 stood at 194.82 against 192.97 in original series showing an increase of 1.85 on account of adjustment of downward seasonality in December 2012.

Month-on-month change of seasonally adjusted CPI series stood at 1.36% reflecting increase during December 2012 over November 2012 and an increase of 0.23% in original series.

Month-on-month change of seasonally adjusted CPI food group series stood at 2.34% reflecting increase during December 2012 and a decrease 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 December 2012 (corresponding to the seasonally adjusted month-on-month rate) is 17.55 percent.

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

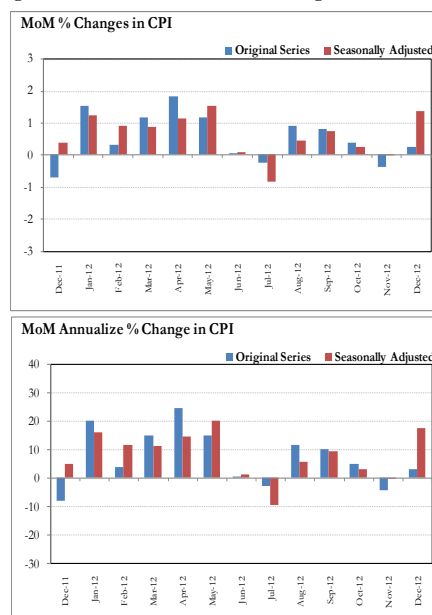
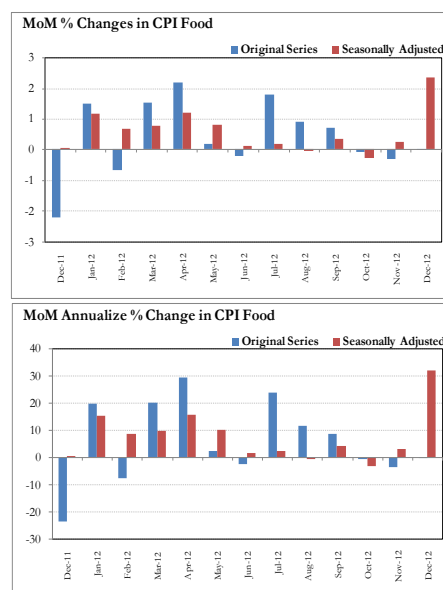


Fig. 8.6 Month-on-Month Percent Changes in CPI Food



## Annexure A

	Weight	MoM change			YoY change		
		Dec-11	Nov-12	Dec-12	Dec-11	Nov-12	Dec-12
<b>I. Food Group</b>	<b>37.5</b>	<b>-2.2</b>	<b>-0.3</b>	<b>0.0</b>	<b>9.5</b>	<b>5.3</b>	<b>7.7</b>
Food & Non-Alcoholic Beverages	34.8	-2.4	-0.4	-0.1	9.5	4.7	7.2
Alcoholic Beverages & Tobacco	1.4	0.0	0.1	0.2	6.9	18.0	18.2
Restaurant & Hotels	1.2	0.3	0.4	0.7	10.9	10.3	10.7
<b>II. Non-Food Group</b>	<b>62.5</b>	<b>0.4</b>	<b>-0.4</b>	<b>0.4</b>	<b>9.9</b>	<b>8.1</b>	<b>8.1</b>
Clothing & Footwear	7.6	0.8	1.1	2.0	14.9	14.5	15.8
Housing, Water, Elect, Gas & other	29.4	0.1	0.0	0.1	6.4	4.2	4.1
Furnishing & Household Equip. Maint	4.2	1.8	1.0	0.8	19.4	13.4	12.3
Health	2.2	1.0	0.6	0.4	10.6	14.9	14.3
Transport	7.2	0.6	-5.5	0.2	13.6	9.4	8.9
Communication	3.2	-0.1	0.1	0.1	0.8	0.5	0.6
Recreation & Culture	2.0	0.5	0.2	0.3	5.5	18.1	17.9
Education	3.9	-0.1	0.2	0.1	11.3	9.8	10.0
Miscellaneous	2.8	0.6	0.7	0.4	18.8	11.5	11.3
<b>Headline</b>	<b>100.0</b>	<b>-0.7</b>	<b>-0.4</b>	<b>0.2</b>	<b>9.7</b>	<b>6.9</b>	<b>7.9</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)	
		Dec-11	Dec-12	Dec-11	Dec-12	Dec-11	Dec-12	Dec-11	Dec-12	Dec-11	Dec-12
<b>I. Food Group</b>	<b>7.7</b>	<b>126</b>	<b>126</b>	<b>15</b>	<b>31</b>	<b>12</b>	<b>17</b>	<b>20</b>	<b>32</b>	<b>79</b>	<b>46</b>
Food & Non-Alcoholic Beverages	7.2	114	114	15	31	10	16	15	28	74	39
Alcoholic Beverages & Tobacco	18.2	6	6	0	0	1	1	3	2	2	3
Restaurant & Hotels	10.7	6	6	0	0	1	0	2	2	3	4
<b>II. Non-Food Group</b>	<b>8.1</b>	<b>348</b>	<b>348</b>	<b>42</b>	<b>40</b>	<b>49</b>	<b>42</b>	<b>63</b>	<b>71</b>	<b>194</b>	<b>195</b>
Clothing & Footwear	15.8	59	59	9	1	0	1	7	5	43	52
Housing, Water, Elect, Gas & other Fuels	4.1	36	36	1	7	5	2	12	11	18	16
Furnishing & Household Equip. Maintenance etc	12.3	69	69	1	2	3	10	15	14	50	43
Health	14.3	39	39	16	11	5	5	4	5	14	18
Transport	8.9	43	43	1	2	7	5	4	12	31	24
Communication	0.6	12	12	5	5	3	2	3	2	1	3
Recreation & Culture	17.9	39	39	6	8	20	8	6	7	7	16
Education	10.0	16	16	2	4	2	3	3	3	9	6
Miscellaneous	11.3	35	35	1	0	4	6	9	12	21	17
<b>Overall</b>	<b>7.9</b>	<b>474</b>	<b>474</b>	<b>57</b>	<b>71</b>	<b>61</b>	<b>59</b>	<b>83</b>	<b>103</b>	<b>273</b>	<b>241</b>

Note: Prices of 13 seasonal items were not reported during the month.

Table A3: Top and Bottom 15 Contributors to CPI Inflation (YoY) in December 2012					
Top 15 Contributors		YoY Change			Weighted Contribution
Items/ Contributors	Weights	Dec-11	Dec-12		
Ranked by Weighted Contribution					
1	House Rent	21.81	6.18	6.27	14.15
2	Milk Fresh	6.68	20.02	11.91	12.24
3	Electricity	4.40	1.22	16.39	9.58
4	Wheat Flour	4.16	0.85	10.32	5.61
5	Education	3.94	11.26	10.04	4.39
6	Transport Services	2.70	10.18	9.72	3.69
7	Cigarette	1.39	6.58	18.37	3.25
8	Footwear	1.55	1.62	20.96	3.16
9	Text Books	0.57	3.30	40.53	2.99
10	Rice	1.58	17.77	14.38	2.72
11	Meat	2.43	17.71	6.91	2.71
12	Motor Fuel	3.03	18.50	6.19	2.39
13	Cooking Oil	1.75	14.74	11.75	2.36
14	Chicken	1.36	7.03	14.43	2.33
15	Personal Equipments	0.84	21.31	14.30	2.19
Total		58.21			73.76
Bottom 15 Contributors					
1	Gas	1.58	13.55	-42.09	-12.11
2	Onion	0.53	-27.44	-30.58	-3.07
3	Tomatoes	0.44	-0.11	-35.54	-2.47
4	Pulse Moong	0.23	-7.43	-12.36	-0.56
5	Sugar	1.04	-24.57	-2.74	-0.45
6	Pulse Mash (Washed)	0.21	-10.69	-9.74	-0.34
7	Fresh Vegetable	1.69	4.30	-1.08	-0.27
8	Pulse Masoor	0.27	-10.75	-6.86	-0.22
9	Gur	0.02	-9.43	-7.58	-0.03
10	Kerosene Oil	0.01	26.10	13.70	0.01
11	Medical Equipment	0.01	28.35	13.66	0.02
12	Betel Leaves & Nuts	0.02	25.68	6.36	0.02
13	Blades	0.03	25.26	8.61	0.03
14	Postal Services	0.07	2.82	5.27	0.05
15	Mustard Oil	0.10	13.98	5.02	0.06
Total		6.25			-19.34

<b>Table A3.1: Top and Bottom 15 Contributors to CPI Inflation (MoM) in December 2012</b>				
<b>Top 15 Contributors</b>				
<b>Items/ Contributors</b>	<b>Weights</b>	<b>MoM Change Nov12</b>	<b>Dec-12</b>	<b>Weighted Contribution</b>
<b>Ranked by Weighted Contribution</b>				
1 Chicken	1.36	7.69	10.95	57.82
2 Wheat Flour	4.16	1.11	1.50	28.11
3 Milk Fresh	6.68	1.06	0.64	23.21
4 Footwear	1.55	0.19	4.18	23.18
5 Egg	0.46	6.49	8.41	21.96
6 Cotton Cloth	1.73	0.88	1.28	8.86
7 Woolen Cloth	0.88	0.89	1.94	8.17
8 Rice	1.58	-0.02	1.11	7.55
9 Household Servant	1.04	1.49	1.43	7.04
10 Woolen Readymade Garments	0.40	5.05	3.89	6.85
11 Ready Made Garment	0.97	0.45	1.22	5.14
12 Transport Services	2.70	-2.68	0.39	5.14
13 Bakery & Confectionary	1.16	0.50	0.98	4.91
14 Dopatta	0.44	1.32	2.19	4.54
15 Wheat	0.35	2.12	2.78	4.18
<b>Total</b>	<b>25.46</b>			<b>216.65</b>
<b>Bottom 15 Contributors</b>				
1 Fresh Vegetable	1.69	-7.52	-8.48	-71.98
2 Onion	0.53	-14.76	-20.56	-57.24
3 Potatoes	0.47	-3.79	-6.62	-15.19
4 Fresh Fruits	1.86	-3.35	-1.30	-11.10
5 Sugar	1.04	-0.16	-1.30	-6.61
6 Motor Fuel	3.03	-10.65	-0.24	-3.10
7 Pulse Gram	0.24	-2.04	-0.89	-1.22
8 Gram Whole	0.16	-0.05	-1.21	-1.11
9 Spices	0.54	-1.77	-0.27	-0.94
10 Tomatoes	0.44	-16.24	-0.58	-0.83
11 Besan	0.15	-0.22	-0.76	-0.67
12 Vegetable Ghee	2.07	-1.46	-0.06	-0.52
13 Pulse Masoor	0.27	-0.34	-0.43	-0.42
14 Pulse Mash (Washed)	0.21	-0.21	-0.40	-0.41
15 Wheat Product	0.10	0.80	-0.65	-0.27
<b>Total</b>	<b>12.80</b>			<b>-171.61</b>

**Table A3.2: Top Fifteen Contributors to CPI Inflation (YoY) in December 2012**

Table 1: Top 15 Items/Contributors to CPI Inflation (YoY) in December 2012					
Items/ Contributors		Weights	YoY Change		Weighted Contribution
			Dec-11	Dec-12	
A. Ranked by Percentage Change					
1	Pulse Gram	0.24	-1.39	44.45	1.32
2	Besan	0.15	1.26	42.74	0.83
3	Text Books	0.57	3.30	40.53	2.99
4	Motor Vehicle Tax	0.11	19.48	27.23	0.28
5	Egg	0.46	14.09	26.53	1.87
6	Woolen Readymade Garments	0.40	10.04	26.08	1.19
7	Honey	0.04	8.08	22.92	0.17
8	Potatoes	0.47	-14.54	21.97	1.22
9	Footwear	1.55	1.62	20.96	3.16
10	Beans	0.03	12.34	20.48	0.08
11	Dopatta	0.44	22.65	20.47	1.14
12	Doctor (MBBS) Clinic Fee	0.59	15.41	19.93	1.50
13	Utensils	0.32	12.64	19.63	0.74
14	Cleaning & Laundering	0.21	15.90	18.40	0.50
15	Cigarette	1.39	6.58	18.37	3.25
Total		6.96			20.23
B. Ranked by Weights					
1	House Rent	21.81	6.18	6.27	14.15
2	Milk Fresh	6.68	20.02	11.91	12.24
3	Electricity	4.40	1.22	16.39	9.58
4	Wheat Flour	4.16	0.85	10.32	5.61
5	Education	3.94	11.26	10.04	4.39
6	Communication & Apparatus	3.15	0.73	0.47	0.14
7	Motor Fuel	3.03	18.50	6.19	2.39
8	Transport Services	2.70	10.18	9.72	3.69
9	Meat	2.43	17.71	6.91	2.71
10	Vegetable Ghee	2.07	12.44	3.30	0.84
11	Fresh Fruits	1.86	27.80	2.13	0.55
12	Cooking Oil	1.75	14.74	11.75	2.36
13	Cotton Cloth	1.73	17.57	8.01	1.63
14	Fresh Vegetable	1.69	4.30	-1.08	-0.27
15	Rice	1.58	17.77	14.38	2.72
Total		63.00			62.74
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 7.9 percent in December, 2012.					

Table A3.3: Top Ten Contributors to CPI Food Inflation (YoY) in December 2012					
Items/ Contributors		Weights	YoY Change		Weighted Contribution
			Dec-11	Dec-12	
A. Ranked by Weighted Contribution					
1	Milk Fresh	6.68	20.02	11.91	12.24
2	Wheat Flour	4.16	0.85	10.32	5.61
3	Cigarette	1.39	6.58	18.37	3.25
4	Rice	1.58	17.77	14.38	2.72
5	Meat	2.43	17.71	6.91	2.71
6	Cooking Oil	1.75	14.74	11.75	2.36
7	Chicken	1.36	7.03	14.43	2.33
8	Ready Made Food	1.23	10.85	10.66	1.89
9	Egg	0.46	14.09	26.53	1.87
10	Pulse Gram	0.24	-1.39	44.45	1.32
Total		21.28			36.30
B. Ranked by Percentage Change					
1	Pulse Gram	0.24	-1.39	44.45	1.32
2	Besan	0.15	1.26	42.74	0.83
3	Egg	0.46	14.09	26.53	1.87
4	Honey	0.04	8.08	22.92	0.17
5	Potatoes	0.47	-14.54	21.97	1.22
6	Beans	0.03	12.34	20.48	0.08
7	Cigarette	1.39	6.58	18.37	3.25
8	Milk Powder	0.11	17.52	14.45	0.21
9	Chicken	1.36	7.03	14.43	2.33
10	Rice	1.58	17.77	14.38	2.72
Total		5.83			13.98
C. Ranked by Weights					
1	Milk Fresh	6.68	20.02	11.91	12.24
2	Wheat Flour	4.16	0.85	10.32	5.61
3	Meat	2.43	17.71	6.91	2.71
4	Vegetable Ghee	2.07	12.44	3.30	0.84
5	Fresh Fruits	1.86	27.80	2.13	0.55
6	Cooking Oil	1.75	14.74	11.75	2.36
7	Fresh Vegetable	1.69	4.30	-1.08	-0.27
8	Rice	1.58	17.77	14.38	2.72
9	Cigarette	1.39	6.58	18.37	3.25
10	Chicken	1.36	7.03	14.43	2.33
Total		24.99			32.34
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 7.7 percent in December, 2012.					



**Table A3.4: Top Ten Contributors to CPI Non-food Inflation (YoY) in December 2012**

Items/ Contributors		Weights	YoY Change		Weighted Contribution
			Dec-11	Dec-12	
A. Ranked by Weighted Contribution					
1	House Rent	21.81	6.18	6.27	14.15
2	Electricity	4.40	1.22	16.39	9.58
3	Education	3.94	11.26	10.04	4.39
4	Transport Services	2.70	10.18	9.72	3.69
5	Footwear	1.55	1.62	20.96	3.16
6	Text Books	0.57	3.30	40.53	2.99
7	Motor Fuel	3.03	18.50	6.19	2.39
8	Personal Equipments	0.84	21.31	14.30	2.19
9	Household Servant	1.04	33.17	15.39	2.10
10	Personal Care	1.49	18.42	10.10	1.94
Total		41.39			46.58
B. Ranked by Percentage Change					
1	Text Books	0.57	3.30	40.53	2.99
2	Motor Vehicle Tax	0.11	19.48	27.23	0.28
3	Woolen Readymade Garments	0.40	10.04	26.08	1.19
4	Footwear	1.55	1.62	20.96	3.16
5	Dopatta	0.44	22.65	20.47	1.14
6	Doctor (MBBS) Clinic Fee	0.59	15.41	19.93	1.50
7	Utensils	0.32	12.64	19.63	0.74
8	Cleaning & Laundering	0.21	15.90	18.40	0.50
9	Mechanical Service	0.46	12.70	17.77	1.00
10	Fire Wood Whole	0.23	27.48	16.86	0.61
Total		4.87			13.11
C. Ranked by Weights					
1	House Rent	21.81	6.18	6.27	14.15
2	Electricity	4.40	1.22	16.39	9.58
3	Education	3.94	11.26	10.04	4.39
4	Communication & Apparatus	3.15	0.73	0.47	0.14
5	Motor Fuel	3.03	18.50	6.19	2.39
6	Transport Services	2.70	10.18	9.72	3.69
7	Cotton Cloth	1.73	17.57	8.01	1.63
8	Gas	1.58	13.55	-42.09	-12.11
9	Footwear	1.55	1.62	20.96	3.16
10	Personal Care	1.49	18.42	10.10	1.94
Total		45.39			28.96

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 8.1 percent in December, 2012.

**Table A4: Distribution of Price Changes (YoY) - Selected CPI Items: December 2012**

Groups	Decrease or no change	Subdued increase (Up to 5%)	Moderate increase (5 to 10%)	More than 10% increase
Food & Non-Alcoholic Beverages	Chillies Green, Tomatoes, Onion, Spinach, Cardamom Small Av.Qlty, Carrot, Cardamom Large Loose Av.Q	Tomato Ketchup Ahmed/Mitchells, Corriander Seed (Loose), Brinjal, Curry Powd. National 200 Gm, Jam Ahmed/Mitchelles	Toffee (Hilal), Tapal Danedar Tea 200 Gm, Vermicelli, Saunf, Fish-Rahu Medium Size, Rusk (Papay), Samosa (Vegetable)	Pulse Gram, Chillies Powd.National 200 Gm, Peas, Besan Av. Qlty., Gram Whole Black Av Qlty., Pepper Black National, Guava, Eggs Farm, Ice, Honey Langanese 500 Gm., Cucumber (Kheera), Potatoes, Rice Basmati Sup. Qlty.
Alcoholic Beverages & Tobacco		Betel Leaves	Cigarettes Gold Leaf 20,S, Betel Nuts	Cigarettes K-20,S, Cigarettes Capstan 20,S, Cigarettes Morven Gold 20,S
Clothing & Footwear	Brassier Av.Qlty	Long Cloth 57" Gul Ahmed/Al Karam	Shoe Repair Half Sole, Child Shoe Power Lite Bata, Sewing Thread/Reel, Azarband Cotton Avg. Qlty, Tailoring Coat-Pant Suit	Brassier Sup. Qlty, Gents Shoe, Art 1109 Servis, Secondhand Sweater For Men, Gents Spoung Chappal Bata, Ladies Spoung Chappal Bata, Ladies Sandal Bata, Dopatta Georgetowne Av.Qlty, Washing Charges Paint & Shirt, Vest/Shameez (Women) Avg. Qlty, Foot Wear Local (Children)
Housing, Water, Elect, Gas & other Fuels	Gas Chrg All Over 500 Mmbtu, Gas Chrg Over 300 - 500 Mmbtu, Gas Chrg Overall/ Combined	Iron Bar (M.S. Bar) 1/2", Cement Blocks (6"X8"X12")	Timber Shesham Log, Mason (Raj) Wage Rate, Cement (Local), Elect. Charges Upto 50 Units, House Rent For Q-I, House Rent For Q-II	Elect. Charges 01 - 100 Units, Elect. Charges 101 - 300 Units, Electrician Wage Rate, Firewood Whole, Elect. Charges Overall/ Combined, Electrician Wage Rate, Elect. Charges 301 - 1000 Units, Kerosene Oil
Furnishing & Household Equip. Maintenance etc	Match Box (Small), Bulb Philips 100-Watt	Washing Powder 1000 Grm (Express), Surf Excel 400 Gms Poly Bag, Tube Light Philips 40 Watt, Sewing Machine (Singer)	S. Steel Plate Avg. Qlty, Hotpot Set Plastic 3 Pcs, Refg. Dawlance 10 Cft., Chair Plastic (Chairman) Av. Qlty	Dinner Set Plastic 72 Pcs, Robin Blue (35 Gms), Boot Polish Cherry/Kiwi 50 MI, Elect. Iron Philips, Table Shesham Wood, Water Set Jug+6 Glasses, Lota Plastic (Med Size) Avg. Qlty, Dari Cotton (6X2 1/2), Chair Shesham Wood
Health	Polyfax Eye Ointment, Lederplex Syrup, Amoxil Capsule 250 Mg., Entex Tab., Septtran Tablets, Calcium Syrup Sandoz	Ventolin Tab. 2Mg. Betnesol Eye Drops, Flagyl Tab. 200 Mg., Daonil Tab. 5 Mg., Renitec Tab. 5 Mg.	ECG Charges, Thermometer China, Dettol (Medium), Sugar Test (Random/Fasting), Betnovate-N Ointment 5 Gm	Hydriyllin Syrup 120 MI O.R.S. (Nimcol), Disprin Tab., Panadol Tab. Extra/Plain, Trisil Tab., Glycerin Small Bottle, Cac. 1000 Tab, Doctor (MBBS) Clinic Fee, Blood Test (Cp) Charges, Gripe-Water Woodward
Transport	CNG, Bus Fare Outside City (Non A/C)	Minibus Fare Min.Within City, Air Fare Economy Class., Motorcycle Honda Cd-70, Motorcycle Yamaha 100 Cc, Motor Cycle Hero 70 Cc	High Speed Diesel Hsd, Bus Fare Min (Within City), Auto Rickshaw Fare, Suzuki Fare Min.Within City, Car Toyota 1300 Cc, Tyre Cycle	Platform Ticket, Taxi 4 Seater Fare, Car Tax For 800 Cc To 1300 Cc, Train Fare Eco. 1-100 Km., Train Fare 1st Slp.101-50, Train Fare 1st Slp. > 500, Cycle Overhauling Charges, Train Fare A/C Slp > 500K, Train Fare A/C Slp. 1-100
Communication	Mobile Set Nokia/Sony/Ericsson Av.Qlty, Postal Envelope Domestic	Telephone Set Av. Qlty, Mobile Cell Charges	T.C.S. Ch. Min.Within Zone, Fax Charges (Local)	Postal Envelope For Saudi Arabia, Internet Charges, Postal Registration Charges
Recreation & Culture	Video Game Sega 16 Byte, T.V 20" Color China/Korea, English Book BA/B.Sc, TV License Fee Domestic, Daily "Nawa-E-Waqt", Daily "Jang"	Photostat Paper 70 Gm, Personnel Computer (Branded), Tape Recorder Cassette (Blank), V.C.P. Panasonic/LG/National, Urdu Book BA/B.Sc	Pencil Goldfish/Deer, Video Cassette Blank. Tdk/Sony, Eng. Book Ist. Year Complete Set, Radio With C.Player National, DVD/ VCD Player Panasonic/LG	English Book Class V1, English Book Class IX or X, Maths Book Class IX or X, Urdu Book Class V (T.B.Board), Cinema A/C High Class, Urdu Book Ist Year/ Inter, Maths Book Ist. Year (T.B. Board), Maths Book Calss V (T.B.Board), Cinema Non-A/C High Class
Education	MBA Tuition Fee, Govt. College Fee 4th. Year, Pvt Eng.College Fee (1st Year), Govt. College Fee Ist. Year	I.T. Tuition Fees, Govt. University Fee M.Sc/ MA, Govt. Med. College Fee MBBS Ist Year	Pvt School Fee Eng.Med (Class-I), Coaching Charges For Class XI/ XII Commerce Group	Govt. Engg. Coll. Fee 1st Year, Pvt School Fee Eng. Med (Class-X), Coaching Fee For Class IX/ X, Coaching Charges For Class XI/ XII Science Group, Pvt School Fee Eng. Med (Class-VI)
Restaurant & Hotels			Bread Tandoori St. Size, Tea Prepared (Ordinary)	Chicken Biryani Full/Double, Cooked Mutton (Av. Hotel), Cooked Dal (Av. Hotel), Cooked Beef (Av. Hotel)
Miscellaneous		Hair Color Bigen, Toilet Soap Lux 95 Gms, Lipstick S. Miss/Medora, Silver Tezabi 24 Ct	Toothpowder Dentonic 90 Gms, Toilet Soap Safeguard Bath Size, Blade Treet Ordinary (10)	Wall Clock Quartz Av.Qlty, Artificial Jewellery Set, Nail Polish S. Miss/Medora, Toothpaste MacLean's 70 Gms, Purse Ladies (Leather) Av. Qlty, Toothpaste Med Size Colgate 70Gms

**Table A5: City- wise CPI Inflation by Income Groups, December 2012**

	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	-0.6	9.1	-1.4	9.4	0.3	8.7	-0.5	9.2	-1.3	9.5	0.3	8.9
2 Islamabad	-0.4	10.3	-1.1	8.3	0.4	13.0	-0.1	9.3	-0.5	8.7	0.4	10.0
3 Lahore	-0.6	8.8	-1.7	8.9	1.0	8.7	-0.4	9.0	-1.3	9.2	0.8	8.8
4 Gujranwala	0.3	8.1	0.2	9.4	0.4	6.5	0.4	8.1	0.5	9.5	0.4	6.4
5 Sialkot	-0.3	9.5	-0.7	11.5	0.4	6.8	0.0	9.5	-0.2	12.1	0.2	6.6
6 Faisalabad	0.1	8.4	0.0	11.1	0.3	5.1	0.4	8.4	0.4	11.5	0.3	5.1
7 Multan	0.3	8.4	0.1	7.7	0.6	9.2	0.3	8.4	0.0	7.9	0.6	8.9
8 Sargodha	1.2	8.1	1.5	7.4	0.8	8.9	1.3	8.5	1.8	8.0	0.8	9.0
9 Bahawalpur	-0.1	8.4	-0.6	4.3	0.6	13.5	0.1	9.1	-0.3	5.2	0.5	13.2
10 Karachi	0.6	8.1	0.8	9.2	0.3	6.6	0.5	8.0	0.6	9.3	0.3	6.5
11 Hyderabad	-0.4	7.0	-1.1	6.4	0.5	7.8	-0.4	7.2	-1.1	6.6	0.5	7.8
12 Sukkur	-0.8	8.4	-1.6	7.4	0.2	9.7	-0.7	8.5	-1.5	7.6	0.1	9.6
13 Larkana	-0.4	7.7	-1.0	3.2	0.3	13.6	-0.2	8.6	-0.8	4.3	0.4	13.4
14 Peshawar	0.2	8.0	-0.4	5.6	1.0	11.0	0.5	8.1	0.0	6.2	0.9	10.2
15 Bannu	0.3	10.0	-0.1	9.0	0.8	11.3	0.7	10.5	0.3	9.1	1.1	11.9
16 Quetta	-0.4	8.6	-0.9	6.1	0.1	12.0	-0.3	9.3	-0.7	6.9	0.2	12.1
17 Khuzdar	0.0	7.4	-0.4	5.3	0.4	9.9	0.1	7.8	-0.4	5.6	0.6	10.1
	Rs 12001-18000						Rs 18001-35000					
	General		Food		Non-Food		General		Food		Non-Food	
	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY
1 Rawalpindi	-0.5	8.4	-1.4	9.6	0.3	7.3	-0.5	8.5	-1.5	9.3	0.3	7.8
2 Islamabad	-0.1	8.2	-0.6	8.6	0.4	7.7	-0.2	8.1	-1.0	8.5	0.5	7.7
3 Lahore	-0.3	8.3	-1.1	9.8	0.6	6.8	-0.1	8.9	-0.8	10.2	0.5	7.7
4 Gujranwala	0.5	7.2	0.5	9.5	0.4	4.8	0.5	7.5	0.6	9.5	0.3	5.7
5 Sialkot	0.2	9.1	0.1	12.7	0.2	5.6	0.2	9.1	0.3	13.0	0.2	5.9
6 Faisalabad	0.5	7.5	0.7	11.8	0.3	3.2	0.5	7.8	0.9	12.2	0.2	4.0
7 Multan	0.5	7.4	0.3	8.0	0.7	6.9	0.6	8.2	0.5	8.4	0.7	7.9
8 Sargodha	1.2	8.0	1.6	8.1	0.9	8.0	1.1	8.7	1.5	8.3	0.9	9.0
9 Bahawalpur	0.2	8.9	-0.1	5.6	0.5	11.9	0.4	10.6	0.0	6.2	0.7	14.2
10 Karachi	0.4	7.3	0.4	9.4	0.3	5.2	0.3	7.9	0.3	9.6	0.3	6.4
11 Hyderabad	-0.3	6.2	-1.1	6.8	0.4	5.6	-0.2	6.7	-0.9	7.0	0.4	6.4
12 Sukkur	-0.7	7.9	-1.5	7.9	0.0	7.8	-0.8	8.8	-1.5	8.7	-0.1	8.9
13 Larkana	-0.2	8.2	-0.7	4.8	0.3	11.5	0.0	8.9	-0.5	5.8	0.4	11.5
14 Peshawar	0.4	6.9	-0.1	6.2	0.9	7.5	0.4	6.6	0.0	6.2	0.7	7.0
15 Bannu	0.6	9.5	0.2	9.1	1.0	9.9	0.6	9.7	0.4	9.3	0.9	10.0
16 Quetta	-0.3	8.6	-0.7	7.3	0.2	9.9	-0.2	8.9	-0.7	7.2	0.1	10.4
17 Khuzdar	0.2	8.0	-0.2	6.3	0.6	9.7	0.1	8.5	-0.2	6.3	0.4	10.3
	Above Rs 35000						Combined					
	General		Food		Non-Food		General		Food		Non-Food	
	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY
1 Rawalpindi	-0.2	7.9	-1.0	9.1	0.3	7.3	-0.3	8.2	-1.2	9.3	0.3	7.4
2 Islamabad	0.0	7.1	-0.7	8.0	0.4	6.6	0.0	7.4	-0.7	8.1	0.5	6.8
3 Lahore	0.1	8.5	-0.1	10.6	0.2	7.4	-0.1	8.5	-0.6	10.1	0.4	7.3
4 Gujranwala	0.5	6.9	0.7	9.1	0.4	5.8	0.4	7.2	0.6	9.4	0.4	5.7
5 Sialkot	0.3	8.2	0.5	13.1	0.2	5.8	0.2	8.7	0.2	12.8	0.2	5.8
6 Faisalabad	0.5	6.6	1.1	12.3	0.1	3.8	0.4	7.3	0.7	11.9	0.2	4.1
7 Multan	0.7	7.6	1.0	8.9	0.6	6.9	0.6	7.7	0.5	8.4	0.6	7.2
8 Sargodha	0.9	9.3	1.7	9.5	0.6	9.2	1.1	8.5	1.6	8.5	0.8	8.5
9 Bahawalpur	0.5	11.3	0.2	7.5	0.7	13.1	0.3	9.9	-0.2	5.9	0.6	12.5
10 Karachi	0.2	8.8	0.2	9.1	0.2	8.6	0.3	8.4	0.3	9.3	0.2	7.7
11 Hyderabad	0.1	6.5	-0.6	7.5	0.4	6.0	-0.2	6.4	-0.9	7.0	0.4	6.0
12 Sukkur	-0.6	8.9	-1.3	9.8	-0.2	8.5	-0.7	8.4	-1.4	8.4	-0.2	8.3
13 Larkana	0.2	8.7	-0.2	6.0	0.4	10.0	-0.1	8.3	-0.7	4.9	0.2	10.6
14 Peshawar	0.4	5.6	0.2	6.3	0.5	5.3	0.4	6.4	0.0	6.2	0.7	6.5
15 Bannu	0.3	9.9	0.3	10.7	0.3	9.5	0.5	9.8	0.2	9.4	0.7	10.2
16 Quetta	-0.1	8.7	-0.5	7.4	0.0	9.3	-0.2	8.6	-0.6	7.1	0.1	9.6
17 Khuzdar	-0.1	9.0	-0.1	6.3	-0.1	10.3	0.1	8.0	-0.3	5.8	0.3	9.5

<b>Table A6: City- wise CPI Inflation (YoY) December, 2012</b>							
	<b>High inflation cities</b>				<b>Low inflation cities</b>		
	<b>General</b>	<b>Food</b>	<b>Non-food</b>		<b>General</b>	<b>Food</b>	<b>Non-food</b>
Mianwali	12.2	9.8	14.0	Multan	7.7	8.4	7.2
Bahawalnagar	11.7	10.3	12.7	Mingora	7.7	4.6	9.8
Loralai & Cantt	11.6	7.7	14.2	Jhang	7.5	3.9	9.9
Mardan	11.2	10.7	11.4	Islamabad	7.4	8.1	6.8
Mithi	11.0	6.4	14.2	Faisalabad	7.3	11.9	4.1
D.G. Khan	10.1	6.2	12.8	Gujranwala	7.2	9.4	5.7
Rahim Yar Khan	10.0	8.1	11.5	Wazirabad	7.1	8.4	6.2
D.I.Khan	10.0	6.6	12.5	Abbotabad	6.7	8.5	5.5
Nawabshah	9.9	8.7	10.7	Jehlum	6.5	5.4	7.2
Bahawalpur	9.9	5.9	12.5	Hyderabad	6.4	7.0	6.0
Bannu	9.8	9.4	10.2	Dadu	6.4	6.2	6.6
Vehari	9.8	8.5	10.7	Peshawar	6.4	6.2	6.5
Sahiwal	9.1	6.8	10.6	Attock	6.1	4.2	7.5
Muzaffargarh	8.8	9.0	8.7	Dera Mrd.Jamali	5.9	4.9	6.6
Sialkot	8.7	12.8	5.8				
Quetta	8.6	7.1	9.6				
Lahore	8.5	10.1	7.3				
Mir Pur Khas	8.5	4.7	11.3				
Sargodha	8.5	8.5	8.5				
Sukkur	8.4	8.4	8.3				
Karachi	8.4	9.3	7.7				
Larkana	8.3	4.9	10.6				
Gawadar	8.2	7.1	9.0				
Rawalpindi	8.2	9.3	7.4				
Turbat	8.1	6.4	9.2				
Khuzdar	8.0	5.8	9.5				
Note: High inflation refers to equal or above average inflation, and low inflation refers to below average							

**Table A7: Income Group-wise Inflation ( percent)**

	MoM			YoY		
	Dec-11	Nov-12	Dec-12	Dec-11	Nov-12	Dec-12
<b><u>Up to Rs. 8000</u></b>						
General	-1.3	-0.2	0.1	8.4	6.6	8.2
Food	-2.7	-0.6	-0.2	7.1	4.4	7.1
Non-food	0.5	0.3	0.6	10.2	9.5	9.6
<b><u>Rs. 8001- 12000</u></b>						
General	-1.2	-0.2	0.2	9.0	7.8	9.3
Food	-2.6	-0.5	-0.1	8.0	4.8	7.3
Non-food	0.4	0.2	0.5	10.1	11.4	11.5
<b><u>Rs. 12001- 18000</u></b>						
General	-1.0	-0.2	0.2	9.2	7.7	9.1
Food	-2.4	-0.4	-0.1	8.6	5.1	7.5
Non-food	0.4	0.1	0.5	9.8	10.5	10.6
<b><u>Rs. 18001- 35000</u></b>						
General	-0.9	-0.2	0.2	9.5	6.4	7.6
Food	-2.3	-0.3	0.0	9.3	5.4	7.8
Non-food	0.4	0.0	0.4	9.7	7.4	7.4
<b><u>Above Rs. 35000</u></b>						
General	-0.4	-0.6	0.3	10.6	6.2	6.9
Food	-1.9	-0.1	0.1	10.9	5.8	7.9
Non-food	0.4	-0.9	0.4	10.4	6.5	6.4
<b><u>All income groups</u></b>						
General	-0.7	-0.4	0.2	9.7	6.9	7.9
Food	-2.2	-0.3	0.0	9.5	5.3	7.7
Non-food	0.4	-0.4	0.4	9.9	8.1	8.1

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

Sr.No.	Items	Unit	Prices Dec-12	Percentage change	
				YoY	MoM
1	Wheat	10Kg.	305.8	11.8	4.1
2	Wheat Flour Bag	10Kg.	343.6	12.1	1.5
3	Rice Basmati Broken	Kg.	68.4	14.4	-0.1
4	Rice Irri-6	Kg.	49.2	9.3	0.0
5	Bread Plain Med. Size (340-400 Gm.)	Each	34.2	9.1	2.2
6	Beef	Kg.	268.1	6.3	0.2
7	Mutton	Kg.	512.4	6.9	0.2
8	Chicken Live (Farm)	Kg.	143.9	10.1	11.1
9	Milk Fresh	Litr	65.0	12.8	0.2
10	Curd	Kg.	75.4	12.1	0.2
11	Milk Powdered Nido	500G	290.0	18.4	0.0
12	Egg Hen (Farm)	Doz.	124.1	25.2	10.7
13	Mustard Oil	Kg.	186.3	4.3	0.1
14	Cooking Oil (Tin)	2.5Ltr	527.9	6.7	-0.6
15	Veg. Ghee (Tin)	2.5Kg.	518.5	4.8	-0.6
16	Veg. Ghee Loose	Kg.	158.8	-1.0	-1.2
17	Bananas	Doz.	54.3	8.6	-0.7
18	Masoor Pulse Washed	Kg.	97.4	-4.3	0.2
19	Moong Pulse Washed	Kg.	111.8	-10.5	-1.2
20	Mash Pulse Washed	Kg.	132.3	-9.0	-1.1
21	Gram Pulse Washed	Kg.	102.8	43.9	-1.2
22	Potatoes	Kg.	26.8	19.6	-12.6
23	Onions	Kg.	26.4	-29.2	-24.1
24	Tomatoes	Kg.	46.1	-23.9	4.6
25	Sugar	Kg.	53.0	-3.3	-1.9
26	Gur	Kg.	73.6	-5.2	-1.1
27	Salt Powdered Loose (Lahori)	Kg.	8.6	6.7	0.1
28	Red Chillies Powder Loose	Kg.	251.2	-21.2	-5.7
29	Garlic	Kg.	123.4	27.8	3.4
30	Tea (Yellow Label )	200Gm.	144.2	9.6	2.8
31	Cooked Beef Plate	Each	68.8	14.8	1.4
32	Cooked Dal Plate	Each	40.0	9.5	0.8
33	Tea Prepared (Sada)	Cup	15.2	7.8	0.3
34	Cigarettes K-2 (20'S)	20'S	32.3	12.6	0.5
35	Long Cloth (Coarse Latha)	Mtr.	147.6	53.1	2.1
36	Shirting	Mtr.	121.6	12.6	2.4
37	Lawn	Mtr.	160.7	55.2	0.4
38	Georgette (Voil Printed)	Mtr.	100.5	16.6	1.6
39	Sandal Gents Bata	Pair	499.0	0.0	0.0
40	Chappal Spong. Bata (Gents)	Pair	179.0	28.8	0.0
41	Sandal Ladies Bata	Pair	399.0	0.0	0.0
42	Electric Charges 1-50	Unit	2.0	7.0	0.0
43	Gas Charges upto 3.3719	Mmbtu	116.0	-7.3	0.0
44	Kerosene	Litr	117.6	14.3	-1.3
45	Firewood	40Kg	493.5	11.9	1.7
46	Energy Savor 14 Watts	Each	150.2	7.3	1.0
47	Washing Soap (200-250 Gm.)	Cake	21.0	17.2	1.0
48	Match Box	Each	1.1	2.8	0.0
49	Petrol	Litr	103.5	16.4	0.5
50	Diesel	Litr	111.0	11.2	-1.8
51	L.P.G.( 11 Kg Cylinder.)	Each	1730.1	26.3	12.2
52	Tele. Local Call	Call	3.6	0.0	0.0
53	Bath Soap Lifebuoy (Standard)	Cake	32.0	6.7	0.0
<b>Maximum</b>				<b>55.2</b>	<b>12.2</b>
<b>Median</b>				<b>9.3</b>	<b>0.1</b>
<b>Minimum</b>				<b>-29.2</b>	<b>-24.1</b>

**Table A9: Distribution of Price Changes (YoY) - WPI Items: December 2012**

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

<b>Table A10: Consumer Price Index Numbers by Major Groups and Composite Commodities</b>				
<b>Items and specification</b>	<b>Weights</b>	<b>Index</b>		
		<b>Dec-11</b>	<b>Nov-12</b>	<b>Dec-12</b>
<b>General</b>	<b>100.00</b>	<b>160.12</b>	<b>172.42</b>	<b>172.82</b>
<b>Food &amp; Non-Alcoholic Beverages.</b>	<b>34.83</b>	<b>179.79</b>	<b>192.84</b>	<b>192.71</b>
1 Wheat	0.35	161.39	173.21	178.02
2 Wheat Flour	4.16	165.72	180.13	182.83
3 Wheat Product	0.10	161.94	173.21	172.08
4 Besan	0.15	163.91	235.75	233.96
5 Rice	1.58	151.97	171.92	173.83
6 Cereals	0.16	187.52	203.04	204.56
7 Bakery & Confectionary	1.16	161.89	173.99	175.69
8 Nimco	0.46	178.46	197.49	197.49
9 Meat	2.43	204.89	218.77	219.05
10 Chicken	1.36	150.61	155.34	172.35
11 Fish	0.30	179.60	193.18	196.55
12 Milk Fresh	6.68	195.47	217.36	218.75
13 Milk Product	0.63	191.77	209.90	210.59
14 Milk Powder	0.11	161.37	184.27	184.69
15 Egg	0.46	196.47	229.32	248.60
16 Mustard Oil	0.10	153.30	160.75	160.99
17 Cooking Oil	1.75	145.49	162.59	162.59
18 Vegetable Ghee	2.07	155.28	160.51	160.41
19 Dry Fruits	0.25	195.24	204.95	209.67
20 Fresh Fruits	1.86	176.41	182.54	180.16
21 Pulse Masoor	0.27	152.48	142.64	142.02
22 Pulse Moong	0.23	246.18	215.42	215.75
23 Pulse Mash (Washed)	0.21	212.94	192.99	192.21
24 Pulse Gram	0.24	160.05	233.27	231.20
25 Gram Whole	0.16	199.93	227.39	224.64
26 Beans	0.03	178.54	214.27	215.10
27 Potatoes	0.47	150.55	196.64	183.63
28 Onion	0.53	239.95	209.68	166.58
29 Tomatoes	0.44	201.23	130.48	129.72
30 Fresh Vegetable	1.69	185.99	201.04	183.99
31 Sugar	1.04	198.14	195.25	192.72
32 Gur	0.02	240.71	226.61	222.46
33 Honey	0.04	205.26	252.31	252.31
34 Sweet Meet	0.25	194.84	205.11	206.12
35 Beverages	1.20	159.46	168.53	168.52
36 Jam, Tomato Ketchup & Pickle	0.25	170.93	178.86	178.89
37 Condiments	0.27	193.39	212.58	213.27
38 Spices	0.54	249.24	257.64	256.95
39 Tea	0.84	201.02	216.87	218.28
<b>Alcoholic Beverages, Tobacco</b>	<b>1.41</b>	<b>161.68</b>	<b>190.69</b>	<b>191.04</b>
40 Cigarette	1.39	161.50	190.81	191.16
41 Betel Leaves & Nuts	0.02	172.89	183.14	183.89
<b>Clothing &amp; Footwear</b>	<b>7.57</b>	<b>151.61</b>	<b>172.18</b>	<b>175.58</b>
42 Cotton Cloth	1.73	149.68	159.62	161.67
43 Woolen Cloth	0.88	168.48	192.14	195.87
44 Ready Made Garment	0.97	150.19	172.85	174.96
45 Woolen Readymade Garments	0.40	146.26	177.50	184.41
46 Hosiery	0.51	162.36	183.58	185.86
47 Dopatta	0.44	159.86	188.47	192.59
48 Cleaning & Laundering	0.21	164.99	192.87	195.35



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

Items and specification	Weights	Index		
		Dec-11	Nov-12	Dec-12
49 Tailoring	0.88	178.74	205.03	206.63
50 Footwear	1.55	123.31	143.18	149.16
<b>Housing, Water, Elect, Gas &amp; Other Fuel</b>	<b>29.41</b>	<b>144.16</b>	<b>150.01</b>	<b>150.10</b>
51 House Rent	21.81	131.37	139.61	139.61
52 Construction Input Item	0.56	186.35	202.11	203.13
53 Construction Wage Rate	0.33	153.46	171.19	172.69
54 Water Supply	0.50	128.32	133.23	134.90
55 Electricity	4.40	168.71	196.37	196.37
56 Gas	1.58	232.00	134.34	134.34
57 Kerosene Oil	0.01	239.70	275.18	272.53
58 Fire Wood Whole	0.23	202.66	233.33	236.83
<b>Furnished H.Hold Equip. &amp; Maint. Etc</b>	<b>4.21</b>	<b>160.35</b>	<b>178.63</b>	<b>180.08</b>
59 Furniture	0.33	150.16	168.01	169.13
60 Household Textile	0.65	155.71	175.00	176.21
61 Household Equipment	0.59	148.58	157.13	158.25
62 Utensils	0.32	148.48	176.06	177.63
63 Plastic Products	0.25	164.47	175.06	175.69
64 Washing Soap & Detergent	0.79	176.15	194.15	195.07
65 Sewing Needle & Dry Cell	0.15	138.05	151.54	151.84
66 Household Servant	1.04	166.33	189.23	191.93
67 Marriage Hall Charges	0.08	170.33	193.11	193.63
<b>Health</b>	<b>2.19</b>	<b>137.16</b>	<b>156.08</b>	<b>156.76</b>
68 Drug Medicine	1.27	124.24	138.28	138.76
69 Medical Equipment	0.01	174.48	196.91	198.31
70 Doctor (MBBS) Clinic Fee	0.59	162.29	193.76	194.63
71 Medical Test	0.32	140.99	156.00	157.07
<b>Transport</b>	<b>7.20</b>	<b>166.18</b>	<b>180.75</b>	<b>181.04</b>
72 Motor Vehicle	0.66	141.05	152.84	152.89
73 Motor Vehicle Accessories	0.24	186.03	206.89	209.17
74 Motor Fuel	3.03	162.24	172.69	172.28
75 Mechanical Service	0.46	156.41	182.81	184.20
76 Motor Vehicle Tax	0.11	119.48	152.02	152.02
77 Transport Services	2.70	178.50	195.09	195.85
<b>Communication</b>	<b>3.22</b>	<b>123.10</b>	<b>123.75</b>	<b>123.85</b>
78 Postal Services	0.07	164.83	173.27	173.52
79 Communication & Apparatus	3.15	122.23	122.71	122.80
<b>Recreation &amp; Culture</b>	<b>2.02</b>	<b>141.43</b>	<b>166.19</b>	<b>166.69</b>
80 Recreation & Culture	0.86	116.78	122.25	122.16
81 Text Books	0.57	164.41	230.22	231.05
82 News Papers	0.19	149.97	155.91	155.92
83 Stationery	0.40	157.89	174.73	176.31
<b>Education</b>	<b>3.94</b>	<b>140.80</b>	<b>154.78</b>	<b>154.93</b>
84 Education	3.94	140.80	154.78	154.93
<b>Restaurants And Hotels</b>	<b>1.23</b>	<b>182.94</b>	<b>201.11</b>	<b>202.44</b>
85 Ready Made Food	1.23	182.94	201.11	202.44
<b>Miscellaneous Goods And Services</b>	<b>2.76</b>	<b>180.79</b>	<b>200.34</b>	<b>201.20</b>
86 Personal Care	1.49	163.53	179.17	180.05
87 Cosmetics	0.39	141.04	149.54	149.65
88 Blades	0.03	159.77	172.39	173.53
89 Personal Equipments	0.84	230.29	262.07	263.21

<b>Table A11: Wholesale Price Index Numbers by Major Groups and Composite Commodities</b>			
<b>Items and Specifications</b>	<b>Index</b>		
	<b>Dec-11</b>	<b>Nov-12</b>	<b>Dec-12</b>
<b>General</b>	<b>176.01</b>	<b>192.16</b>	<b>192.98</b>
<b>Agriculture Forestry &amp; Fishery</b>	<b>178.32</b>	<b>189.19</b>	<b>192.97</b>
1 Wheat	167.12	181.31	185.88
2 Maize	147.58	161.45	165.11
3 Rice	150.30	163.85	163.76
4 Sorghum/Jowar	185.14	188.66	198.10
5 Millet/Bajra	144.74	156.89	157.83
6 Vegetables	235.64	223.38	185.19
7 Fresh Fruits	127.26	130.42	207.91
8 Dry Fruits	187.65	175.06	179.38
9 Cotton Seeds	202.55	170.85	166.78
10 Other Oil Seeds	169.82	183.21	186.07
11 Edible Roots/ Potatoes	174.44	188.12	176.09
12 Stimulant And Spice Crops	187.38	178.82	170.28
13 Pulses	205.76	211.21	207.89
14 Sugar Crops	291.82	267.92	267.92
15 Fibre Crops	170.80	177.87	179.31
16 Unmanufactured Tobacco	167.91	169.08	169.08
17 Poultry	147.79	153.87	175.34
18 Milk From Bovine Animals	188.73	213.76	213.76
19 Eggs	201.26	233.24	250.45
20 Raw Animal Material/Wool	131.99	137.58	137.58
21 Hides And Fur Skins, Raw	133.44	138.71	138.82
22 Fuel Wood In Logs	188.09	208.63	216.60
23 Fishes Live Fresh Or Chilled	140.41	176.27	178.10
<b>Ores/Minerals, Gas &amp; Elect.</b>	<b>170.51</b>	<b>207.85</b>	<b>208.45</b>
24 Coal Not Agglomerated	130.20	196.08	196.08
25 Natural Gas Liquefied	180.13	192.37	193.63
26 Salt & Pure Sodium Chloride	154.20	164.54	164.54
27 Electrical Energy	166.13	226.10	226.10
<b>Food, Beverages, Tobacco, Textiles</b>	<b>170.36</b>	<b>187.56</b>	<b>188.44</b>
28 Meat Of Animals	215.47	227.09	228.57
29 Vegetables & Fruit Juices	177.14	187.55	188.52
30 Dried Fruits & Nuts	201.89	221.39	224.06
31 Fruit Juices	155.01	157.66	157.91
32 Vegetable Oil Refined	150.85	154.80	156.05
33 Vegetable Ghee	138.76	139.91	139.95
34 Oil Cakes	151.98	175.06	172.67
35 Processed Liquid Milk	181.63	208.43	208.43
36 Milk And Cream In Solid Form	165.54	171.16	171.59
37 Ice Cream	154.15	167.68	167.68
38 Dairy Products N.E.C	182.91	204.91	204.91
39 Wheat Flour	153.41	166.05	168.13
40 Other Cereal Flour	143.79	203.99	200.17
41 Sugar Refined	204.30	205.06	199.74
42 Chocolate	100.00	99.19	99.19
43 Sugar Confectionary	100.40	100.40	100.40
44 Coffee And Tea	191.69	198.68	199.81
45 Spices	290.49	303.12	301.56
46 Other Food Products	318.59	323.46	319.27
47 Mineral Water	164.64	168.32	168.32
48 Beverages	133.04	137.86	137.86
49 Tobacco Products	166.13	208.80	208.80
50 Cotton Yarn	174.87	207.49	211.22
51 Nylon Yarn	176.23	177.24	178.80
52 Blended Yarn	191.22	188.63	192.45
53 Woven Fabrics	165.01	196.74	206.00
54 Cotton Fabrics	165.72	174.17	174.17
55 Other Fabrics	153.88	165.62	165.62

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

Items and Specifications		Index		
		Dec-11	Nov-12	Dec-12
56	Silk And Rayon Fabrics	138.37	154.01	154.21
57	Towels	178.07	203.06	203.06
58	Blankets	149.14	178.52	184.97
59	Bed Sheets	164.70	197.94	197.94
60	Quilts	147.05	149.37	151.68
61	Woolen Carpets	103.57	106.55	106.55
62	Synthetic Carpets	148.31	113.15	114.41
63	Hosiery Products	152.82	175.07	178.65
64	Ready Made Garments	126.24	135.15	136.27
65	Leather With Out Hairs	109.34	109.83	109.83
66	Other Leather N.E.C	120.85	122.57	122.57
67	Footwear's	101.48	128.50	133.63
<b>Other Transportable Goods</b>		<b>192.97</b>	<b>206.43</b>	<b>204.13</b>
68	Timber	135.73	148.23	148.36
69	Printing Paper	120.47	152.93	155.35
70	Hard Board	143.75	239.58	194.44
71	Coke	155.82	163.45	163.45
72	Motor Sprit	148.46	172.08	171.33
73	Diesel Oil	238.13	265.58	261.87
74	Kerosene Oil	237.92	269.61	263.47
75	Furnace Oil	197.56	172.69	168.81
76	Mobil Oil	171.42	182.64	184.45
77	Chemicals	146.14	153.56	156.65
78	Dying Materials	108.04	104.26	104.26
79	Fertilizers	262.61	266.79	261.25
80	Pesticides	165.03	197.49	197.49
81	Insecticides	130.07	131.43	117.42
82	Paints & Varnishes	180.34	237.48	237.48
83	Medicines	113.92	139.50	139.54
84	Soaps & Detergent	152.08	168.45	168.41
85	Auto Tyres	172.05	180.73	180.84
86	Plastic Products	179.97	191.35	191.35
87	Glass Sheets	171.03	190.93	190.93
88	Other Glass Articles	206.71	191.72	191.72
89	Ceramics And Sanitary	132.70	157.32	157.32
90	Bricks Blocks And Tiles	169.63	172.40	173.20
91	Cement	155.70	187.15	187.19
92	Bed Foams	125.50	140.67	141.17
93	Matches	120.39	133.50	133.50
<b>Metal Product Machinery &amp; Equip</b>		<b>153.46</b>	<b>159.04</b>	<b>159.19</b>
94	Pig Iron	128.97	128.97	128.97
95	Steel Bars & Sheets	133.20	133.72	133.53
96	Pipe Fittings	140.49	141.47	141.47
97	Steel Products	157.56	161.94	161.94
98	Engines And Motors	109.07	109.07	109.07
99	Vacuum Pumps	115.39	115.39	115.39
100	Air Conditioners	163.59	172.67	172.67
101	Cultivators	184.66	189.23	189.23
102	Chuff Cutter	131.08	138.54	138.54
103	Tractors	180.89	161.96	161.96
104	Lathe Machines	147.51	147.68	147.68
105	Concrete Mixer	138.83	138.83	138.83
106	Refrige,Wash& Sew Mach, Iron,Fan	163.41	165.38	166.45
107	Electrical Wires	163.22	159.57	159.57
108	Lighting Equipments	142.85	148.10	148.22
109	Radio And Television	131.33	126.46	126.46
110	Motor Vehicles	154.47	167.70	171.79
111	Motor Cycles	121.72	125.19	125.19
112	Bicycles	167.39	177.87	177.87

<b>Table A12: Price Indices - Base 2007-08 = 100</b>								
<b>Period</b>		<b>CPI</b>			<b>WPI</b>			<b>SPI *</b>
		<b>Overall</b>	<b>Food</b>	<b>Non-food</b>	<b>Overall</b>	<b>Food</b>	<b>Non-Food</b>	
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
2010	Feb	130.13	139.06	124.78	138.26	139.65	137.38	143.00
	Mar	131.75	141.71	125.78	140.35	141.71	139.49	144.87
	Apr	134.16	145.24	127.52	143.09	143.76	142.66	146.52
	May	134.34	145.68	127.54	144.73	144.13	145.11	147.54
	Jun	134.83	146.63	127.76	144.97	147.15	143.58	147.90
	Jul	137.62	149.33	130.60	147.38	149.13	146.27	152.10
	Aug	140.63	156.70	131.00	150.19	152.48	148.74	155.44
	Sep	143.49	163.96	131.22	152.74	155.52	150.98	161.00
	Oct	144.90	163.90	133.51	155.40	156.03	155.00	163.01
	Nov	146.34	166.59	134.20	159.34	157.03	160.81	167.56
	Dec	145.90	163.69	135.24	162.48	155.88	166.67	166.52
2011	Jan	147.67	166.52	136.37	165.58	159.08	169.70	166.96
	Feb	146.85	163.56	136.83	168.82	158.33	175.47	164.99
	Mar	148.91	167.10	138.01	174.41	162.92	181.70	166.81
	Apr	150.99	169.25	140.05	178.69	165.46	187.09	167.83
	May	151.33	168.76	140.88	176.97	167.15	183.20	167.98
	Jun	152.78	169.88	142.53	177.98	172.14	181.68	168.09
	Jul	154.72	174.80	142.68	177.26	175.45	178.41	171.45
	Aug	156.89	177.32	144.65	178.24	178.67	177.97	173.86
	Sep	158.50	180.16	145.52	178.68	181.88	176.65	175.02
	Oct	160.79	183.07	147.44	179.34	182.82	177.13	176.45
	Nov	161.25	183.26	148.06	178.39	181.48	176.43	177.53
	Dec	160.12	179.21	148.67	176.01	178.29	174.57	175.04
2012	Jan	162.58	181.90	151.00	179.99	178.95	180.65	178.25
	Feb	163.07	180.69	152.51	180.99	177.56	183.17	178.63
	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

\*: all groups combined

**Table A13: International Commodity Prices/ Indices**

	Sep-12	Oct-12	Nov-12	Dec-12
<b>Energy</b>				
Crude Oil (US\$ per barrel) *	106.3	103.4	101.2	101.2
IMF Energy Index (2005 = 100)	196.5	191.0	188.0	188.4
WB Energy Index (2005 = 100) @	188.5	183.7	180.9	181.6
<b>Food</b>				
Rice (\$/MT)	590.5	584.7	590.7	565.5
Wheat (\$/MT)	353.4	358.2	361.0	347.9
Sugar (US cent/ pound)	20.2	20.4	19.3	19.2
Palm Oil (\$/MT)	879.5	768.1	743.1	713.9
Soybean Oil (\$/MT)	1,213.3	1,119.9	1,071.8	1,088.8
<b>Non-Food Non-Energy</b>				
Cotton Outlook 'A' Index #	84.2	82.0	80.9	83.4
IMF Metal Price Index (2005 = 100)	179.9	183.4	182.1	192.7
Copper (\$/MT)	8,087.7	8,062.0	7,711.2	7,966.5
Aluminum (\$/MT)	2,064.1	1,974.3	1,948.8	2,086.8
Iron Ore (\$ cents/dry MT)	99.5	114.0	120.4	128.9
Tin (\$/MT)	20,771.3	21,233.7	20,713.1	22,880.9
Nickle (\$/MT)	17,288.0	17,168.7	16,335.4	17,448.5
Zinc (\$/MT)	2,009.9	1,904.0	1,912.4	2,040.4
Lead (\$/MT)	2,177.7	2,142.0	2,182.0	2,279.8
Uranium (\$/MT)	47.7	44.6	41.5	43.7
DAP (\$/MT)	573.0	573.0	524.8	499.0
Urea (\$/MT)	384.5	396.0	374.2	378.8

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>FY10</b>	<b>FY11</b>	<b>FY12</b>	<b>FY13</b>
Jul	122.46	137.62	154.72	169.57
Aug	124.68	140.63	156.88	171.09
Sep	124.89	143.49	158.50	172.44
Oct	125.64	144.90	160.79	173.10
Nov	127.30	146.34	161.25	172.42
Dec	126.37	145.90	160.12	172.82
Jan	129.64	147.67	162.58	
Feb	130.13	146.85	163.07	
Mar	131.75	148.91	164.98	
Apr	134.16	150.99	168.00	
May	134.34	151.33	169.93	
Jun	134.83	152.78	169.99	
<b>Seasonally Adjusted Series</b>				
Jul	122.17	137.33	154.39	169.18
Aug	123.93	139.74	155.84	169.92
Sep	124.10	142.45	157.33	171.18
Oct	124.66	143.66	159.35	171.58
Nov	126.70	145.63	160.46	171.56
Dec	127.05	146.73	161.08	173.89
Jan	130.06	148.14	163.08	
Feb	131.16	148.14	164.57	
Mar	132.50	149.83	166.01	
Apr	134.15	150.97	167.89	
May	134.68	151.75	170.45	
Jun	135.30	153.32	170.60	

**Table 15. CPI Food Data Series Original and Seasonally Adjusted**

<b>Original Series</b>				
<b>Period</b>	<b>FY10</b>	<b>FY11</b>	<b>FY12</b>	<b>FY13</b>
Jul	130.97	149.33	174.80	190.72
Aug	134.95	156.70	177.32	192.47
Sep	135.20	163.96	180.16	193.80
Oct	135.98	163.91	183.07	193.66
Nov	138.87	166.59	183.26	193.03
Dec	135.81	163.69	179.21	192.97
Jan	138.54	166.52	181.90	
Feb	139.06	163.56	180.69	
Mar	141.71	167.10	183.46	
Apr	145.24	169.25	187.43	
May	145.69	168.77	187.75	
Jun	146.63	169.88	187.35	
<b>Seasonally Adjusted Series</b>				
Jul	130.40	148.79	174.16	189.91
Aug	133.24	154.65	174.92	189.79
Sep	133.14	161.24	177.07	190.45
Oct	133.45	160.72	179.43	189.90
Nov	136.98	164.39	180.83	190.37
Dec	137.00	165.15	180.90	194.82
Jan	139.46	167.57	183.02	
Feb	141.53	166.66	184.26	
Mar	143.32	169.08	185.65	
Apr	145.71	169.78	187.88	
May	146.80	170.11	189.38	
Jun	148.32	171.84	189.59	

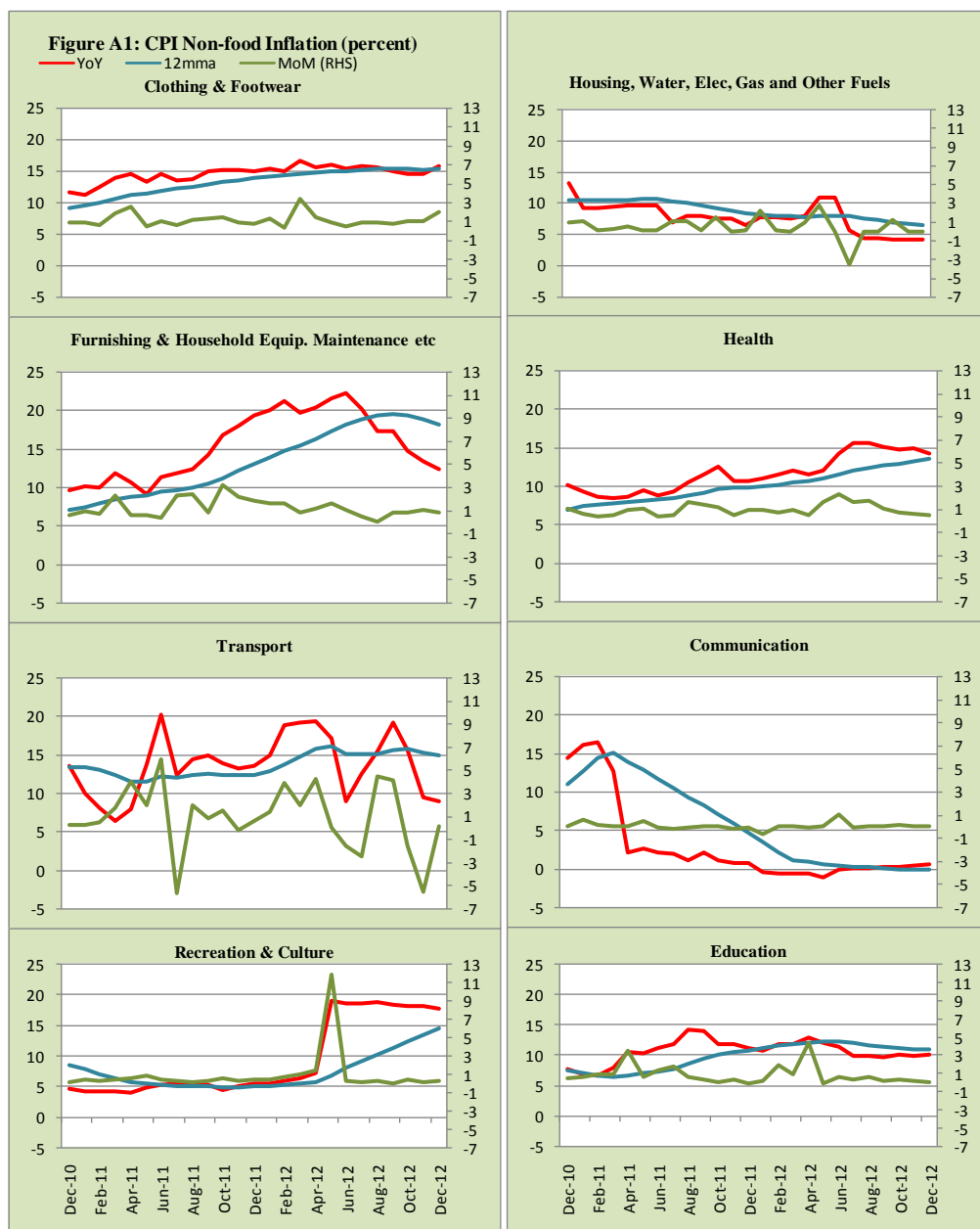
<b>Table 16: CPI Monthly &amp; Average Seasonal Factors</b>					
<b>Period</b>	<b>FY10</b>	<b>FY11</b>	<b>FY12</b>	<b>FY13</b>	<b>Average</b>
Jul	100.24	100.21	100.21	100.23	100.22
Aug	100.60	100.64	100.67	100.69	100.65
Sep	100.64	100.73	100.74	100.74	100.71
Oct	100.79	100.87	100.90	100.89	100.86
Nov	100.47	100.49	100.49	100.50	100.49
Dec	99.47	99.44	99.41	99.38	99.42
Jan	99.68	99.69	99.70		99.69
Feb	99.22	99.13	99.09		99.14
Mar	99.43	99.39	99.38		99.40
Apr	100.01	100.02	100.06		100.03
May	99.74	99.72	99.70		99.72
Jun	99.65	99.65	99.65		99.65

<b>Table 17: CPI Food Monthly &amp; Average Seasonal Factors</b>					
<b>Period</b>	<b>FY10</b>	<b>FY11</b>	<b>FY12</b>	<b>FY13</b>	<b>Average</b>
Jul	100.43	100.36	100.37	100.43	100.40
Aug	101.28	101.32	101.37	101.41	101.35
Sep	101.55	101.69	101.75	101.76	101.69
Oct	101.90	101.99	102.03	101.98	101.97
Nov	101.38	101.34	101.35	101.40	101.37
Dec	99.13	99.12	99.07	99.05	99.09
Jan	99.34	99.37	99.39		99.37
Feb	98.25	98.14	98.06		98.15
Mar	98.88	98.83	98.82		98.84
Apr	99.68	99.69	99.76		99.71
May	99.25	99.21	99.14		99.20
Jun	98.86	98.86	98.82		98.85



<b>Table 18: CPI Month-on-Month Change Original &amp; Seasonally Adjusted</b>				
<b>Original Series</b>				
<b>Period</b>	<b>FY10</b>	<b>FY11</b>	<b>FY12</b>	<b>FY13</b>
Jul		2.07	1.27	-0.25
Aug	1.81	2.19	1.40	0.90
Sep	0.17	2.03	1.03	0.79
Oct	0.60	0.98	1.44	0.38
Nov	1.32	0.99	0.29	-0.39
Dec	-0.73	-0.30	-0.70	0.23
Jan	2.59	1.21	1.54	
Feb	0.38	-0.56	0.30	
Mar	1.24	1.40	1.17	
Apr	1.83	1.40	1.83	
May	0.13	0.23	1.15	
Jun	0.36	0.96	0.04	
<b>Seasonally Adjusted Series</b>				
Jul		1.50	0.70	-0.83
Aug	1.45	1.75	0.94	0.44
Sep	0.13	1.94	0.96	0.74
Oct	0.45	0.85	1.29	0.24
Nov	1.64	1.37	0.70	-0.01
Dec	0.27	0.76	0.38	1.36
Jan	2.37	0.96	1.24	
Feb	0.85	0.00	0.92	
Mar	1.02	1.14	0.87	
Apr	1.25	0.76	1.13	
May	0.40	0.52	1.52	
Jun	0.46	1.03	0.09	

<b>Table 19: CPI Food Month-on-Month Change Original &amp; Seasonally Adjusted Series</b>				
<b>Original Series</b>				
<b>Period</b>	<b>FY10</b>	<b>FY11</b>	<b>FY12</b>	<b>FY13</b>
Jul		1.84	2.90	1.80
Aug	3.04	4.93	1.44	0.92
Sep	0.19	4.64	1.60	0.69
Oct	0.58	-0.04	1.62	-0.07
Nov	2.12	1.64	0.10	-0.33
Dec	-2.20	-1.74	-2.21	-0.03
Jan	2.01	1.73	1.50	
Feb	0.38	-1.77	-0.66	
Mar	1.91	2.16	1.53	
Apr	2.49	1.28	2.16	
May	0.31	-0.28	0.17	
Jun	0.65	0.66	-0.21	
<b>Seasonally Adjusted Series</b>				
Jul		0.32	1.35	0.17
Aug	2.18	3.94	0.43	-0.06
Sep	-0.08	4.26	1.23	0.35
Oct	0.23	-0.32	1.33	-0.29
Nov	2.64	2.28	0.78	0.25
Dec	0.02	0.47	0.04	2.34
Jan	1.80	1.47	1.17	
Feb	1.49	-0.54	0.68	
Mar	1.26	1.45	0.75	
Apr	1.66	0.42	1.20	
May	0.75	0.19	0.79	
Jun	1.04	1.02	0.11	



**Figure A2: Frequency Distribution of Price Changes of CPI Items, December 2012**

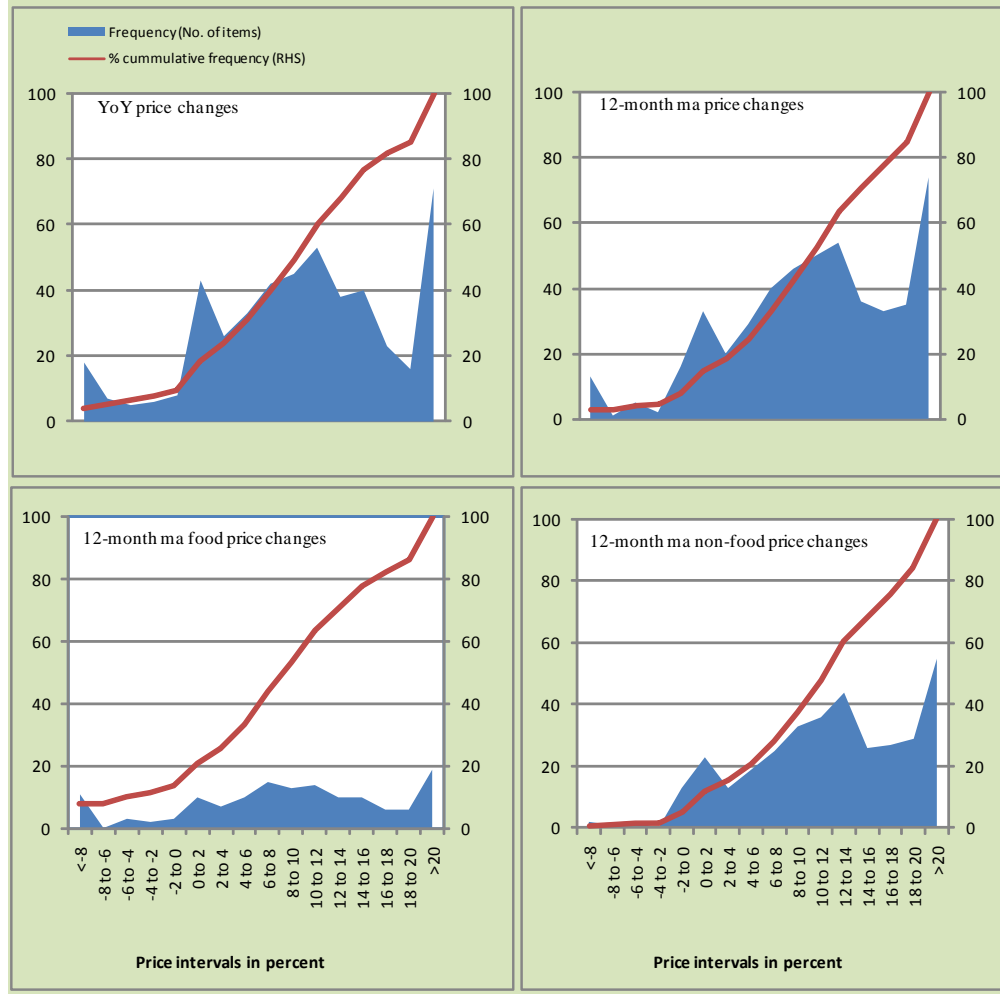
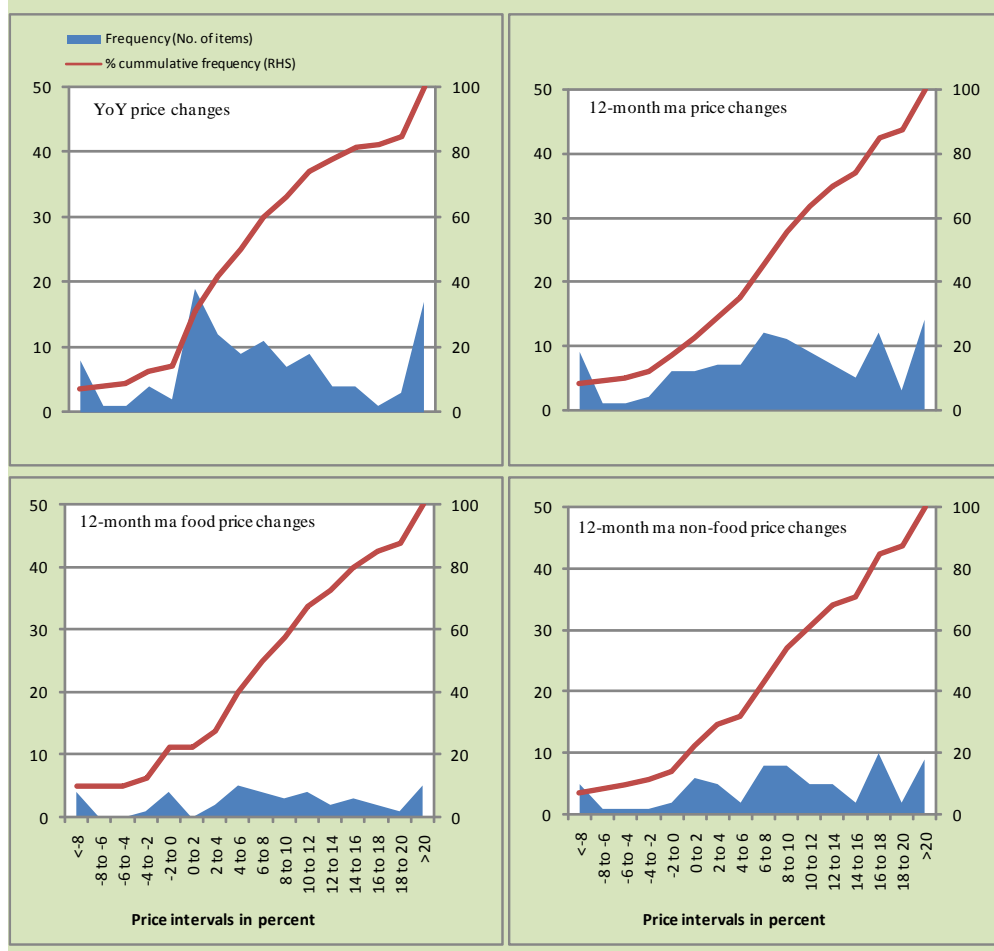
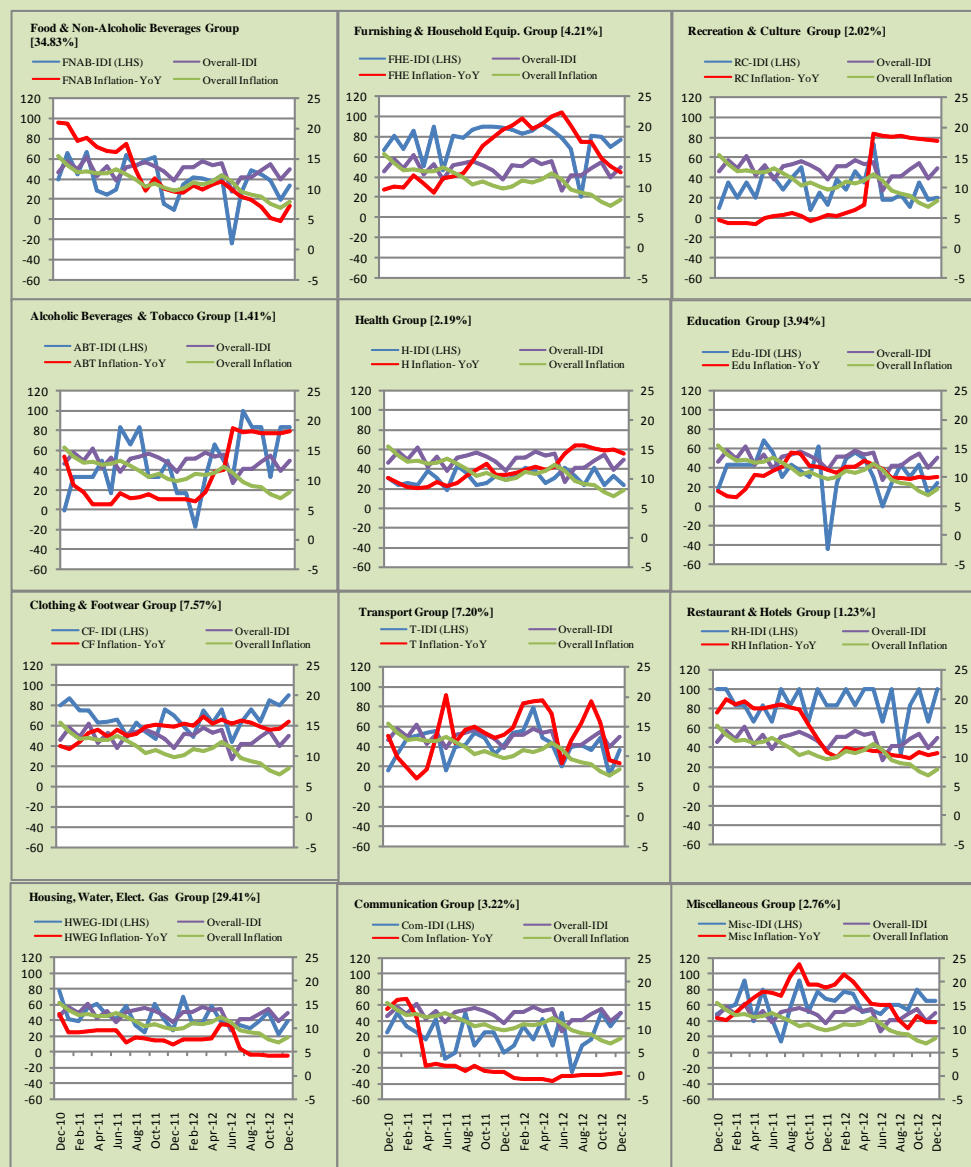


Figure A3: Frequency Distribution of Price Changes of WPI Commodities, December 2012



## Inflation Monitor, December 2012

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 two methods:
- a) Non-food, Non-energy inflation (NFNE inflation); it is computed by excluding food group and energy items (kerosene oil, petrol, diesel, CNG, electricity and natural gas) from the CPI basket.
  - b) 20% trimmed-mean inflation; it is computed through the following steps:
    - i. All CPI items are arranged in ascending order according to YoY/12-month moving average/monthly/period average changes in their price indices in a given month.
    - ii. 20 percent of the items showing extreme changes are excluded with 10 percent of the items at the top of the list (corresponding to cumulative weight of 90% or more) and 10 percent of the items at the bottom of the list (corresponding to cumulative weight of 10 percent or less).
    - iii. The weighted mean of the changes in price indices of the rest of the items is core inflation.
9. Weighted contribution of different items (or sub-groups) to total inflation is worked out as below:



Let the overall index ( $I_t$ ) is the weighted average of price indexes of individual items or sub-groups ( $I_{it}$ ), i.e.

$$I_t = \sum_i w_i \cdot I_{it}$$

The weighted contribution of a single item (or a sub-group) to overall inflation is defined as below:

$$C_{it} = \alpha_{it-12} \cdot w_i \cdot \left( \frac{\pi_{it}}{\pi_t} \right)$$

Where  $C_{it}$  : Contribution of  $i^{\text{th}}$  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.

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<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.