

# **Inflation Monitor**

**November 2012**



**State Bank of Pakistan**

**Statistics & DWH Department**

ISSN 1992-8327 (print)

ISSN 1992-8335 (online)

The analysis in this document is based on data

- Provided by Pakistan Bureau of Statistics (PBS), for domestic inflation analysis
- Retrieved from IMF & World Bank websites for global inflation analysis

[http://www.sbp.org.pk/publications/inflation\\_Monitor](http://www.sbp.org.pk/publications/inflation_Monitor)

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## **Review**

### **Inflation in Brief**

1. Headline CPI inflation (2007-08=100) is recorded at 6.9 percent on year-on-year basis in November 2012 as compared to 7.7 percent in the previous month and 10.2 percent in the corresponding month of last year.
2. CPI inflation on month-on-month basis is recorded at -0.4 percent in November 2012 as compared to 0.4 percent in the previous month and 0.3 percent in the corresponding month of last year. Seasonally adjusted month-on-month CPI inflation decreased to - 0.1 percent in November 2012 as compared 0.2 percent in the previous month.
3. Core inflation (trimmed) on year-on-year basis decreased to 8.8 percent in November 2012 as compared to 9.7 percent in the previous month and it was 11.5 percent in the corresponding month of last year.
4. On month-on-month basis, the Core inflation (trimmed) decreased to 0.2 percent in November 2012 as compared to 0.7 percent in previous month. It was 0.5 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 9.8 percent in November 2012 as compared to 10.2 percent in the previous month. It was 10.4 percent in the corresponding month of last year.
6. Core NFNE inflation on month-on-month basis decreased to 0.2 percent in November 2012 when compared to 1.2 percent a month earlier. The rate of change in Core NFNE in November 2011 was 0.6 percent.
7. WPI inflation on year-on-year basis increased to 7.7 percent in November 2012 when compared to 7.5 percent a month earlier. During November 2011, WPI inflation was recorded at 12.0%.

8. WPI inflation on month-on-month basis decreased to -0.4 percent in November 2012 as compared to 0.1 percent a month earlier. It was -0.5 percent in November 2011.
9. SPI inflation on year-on-year basis decreased to 5.5 percent in November 2012 as compared to 6.2 percent in the previous month. It was 5.9 percent in the corresponding month of last year.
10. SPI inflation on month-on-month basis is recorded at 0.0 percent in November 2012 as compared to -0.5 percent a month earlier and 0.6 percent in November 2011.

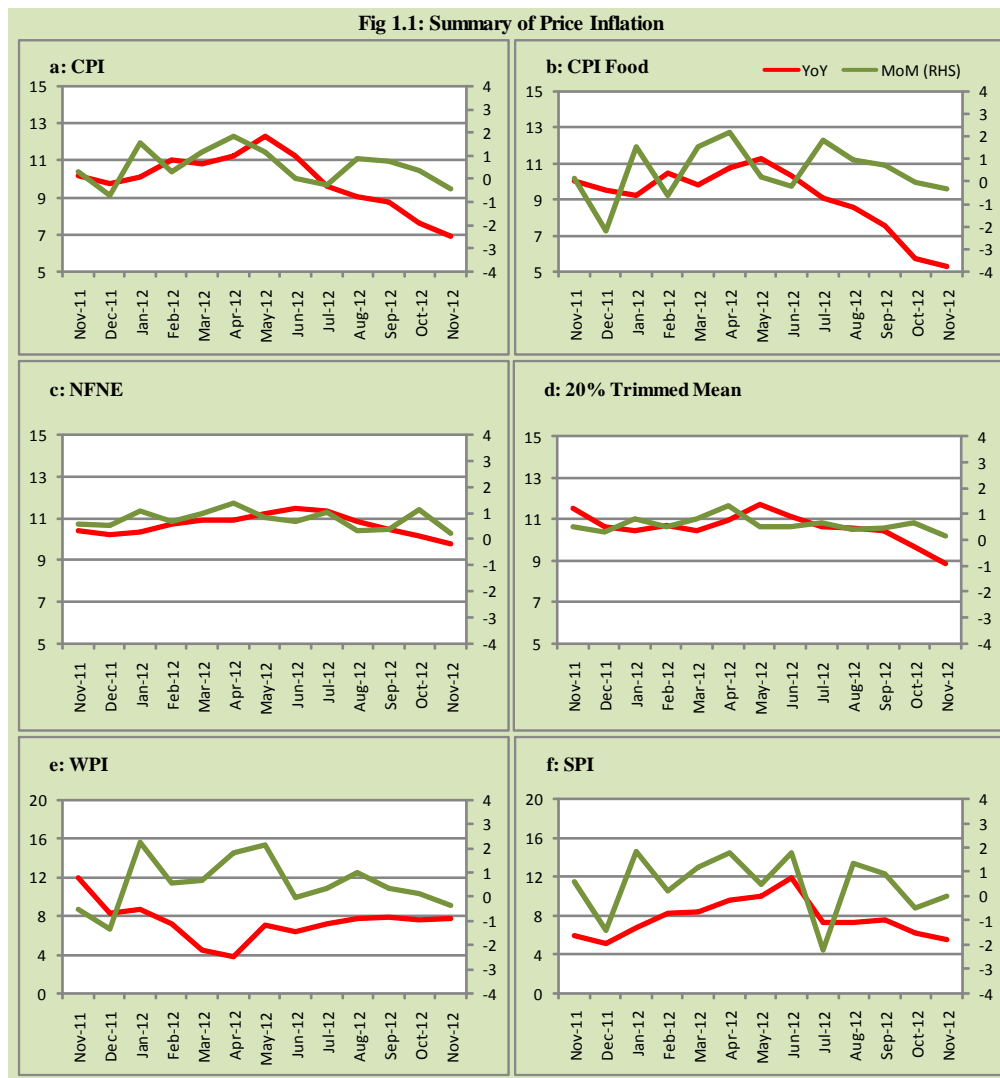
**Table 1.1 Inflation Trends (percent) (Base 2007- 08 = 100)**

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				
Nov-11	10.2	0.3	10.0	0.1	10.3	0.4	10.4	0.6	11.5	0.5	12.0	-0.5	5.9	0.6
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

\* NFNE is Non-food non-energy

\*\* SPI for all income groups combined

Fig 1.1: Summary of Price Inflation



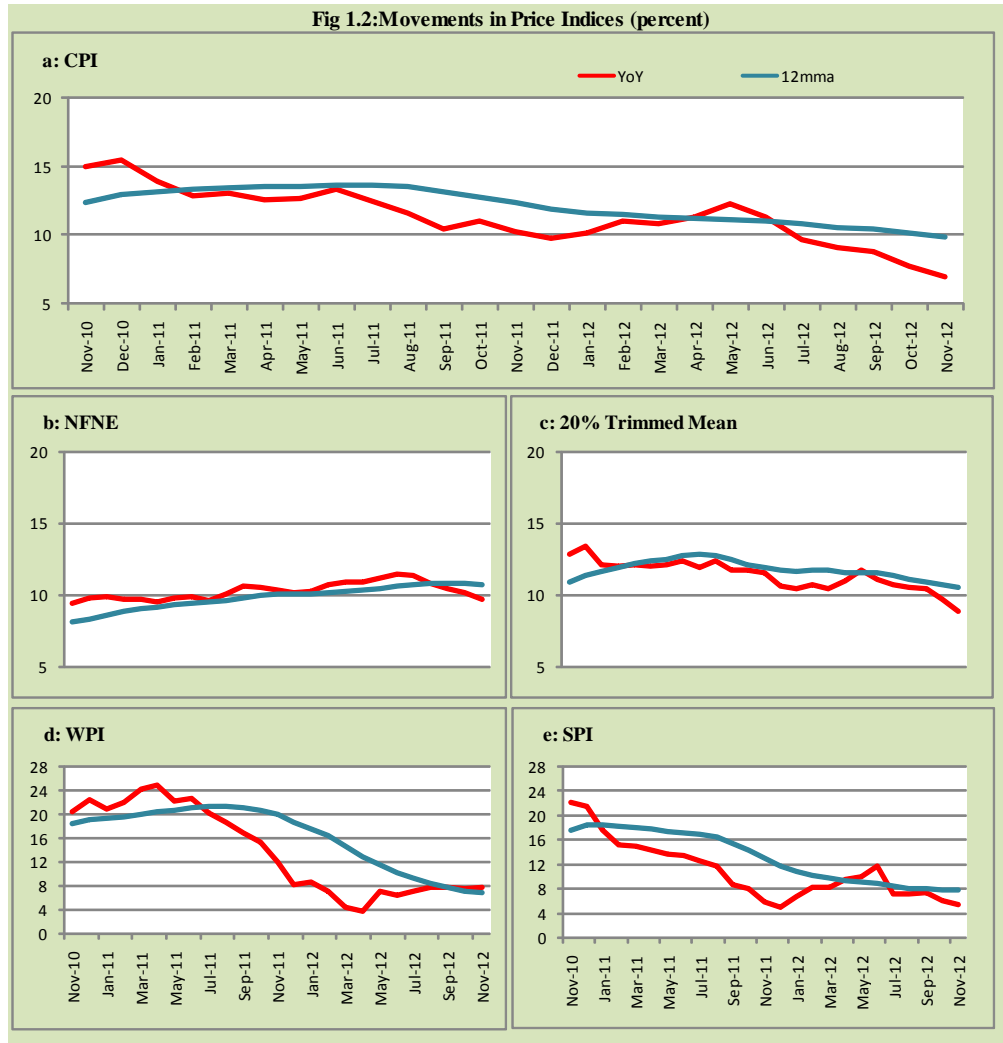
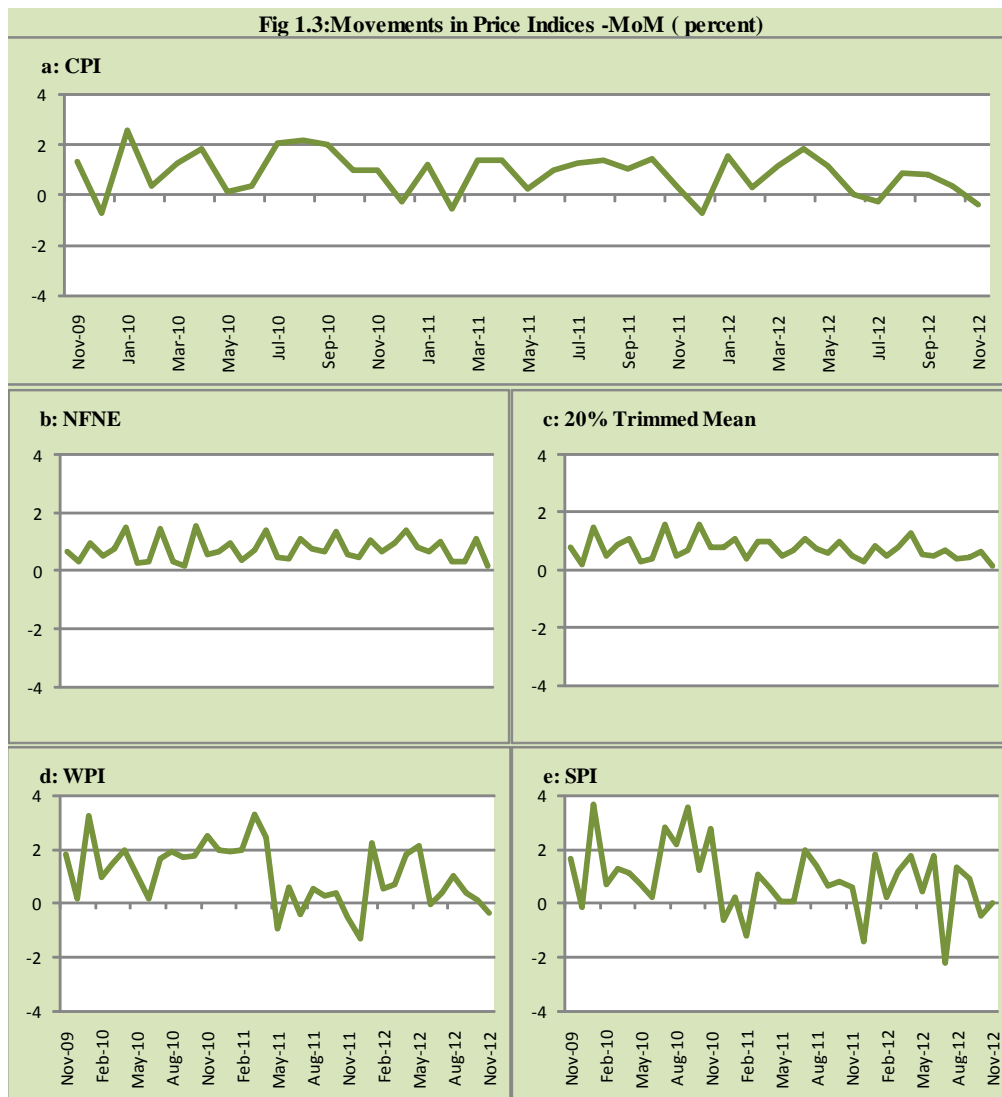
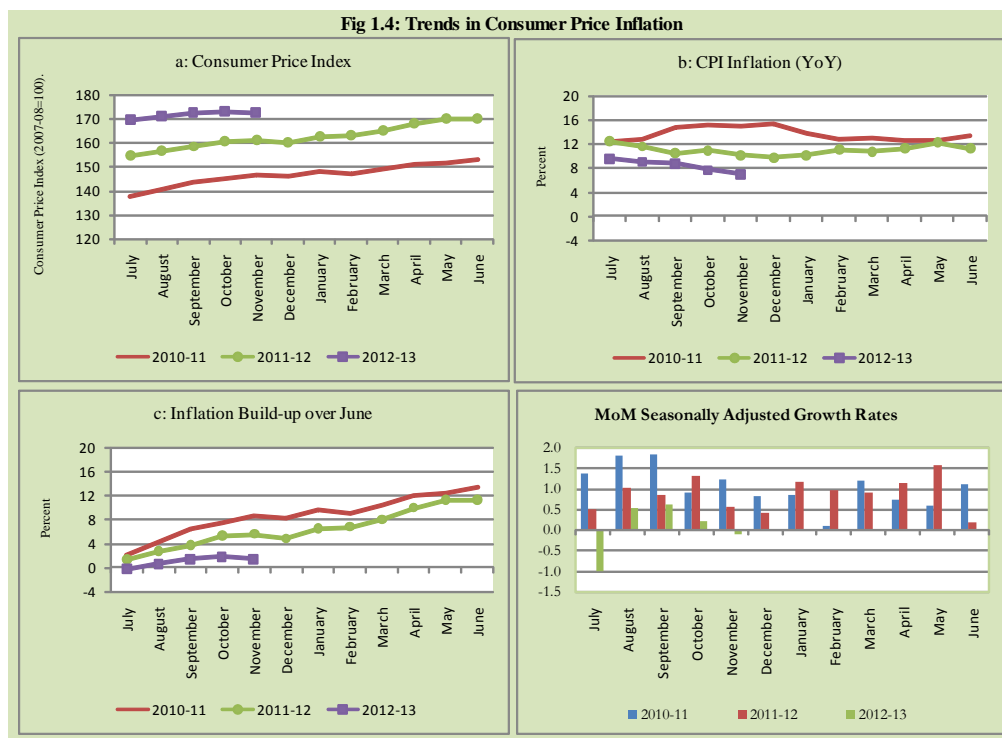




Fig 1.3: Movements in Price Indices -MoM ( percent)



**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 was higher than overall inflation observed during November 2012 except Peshawar. Among these five cities, the lowest inflation was observed in Peshawar at 4.9 percent while the highest inflation was observed in Quetta at 8.7 percent (Table A6 of annexure-A).

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

	Nov-11		Oct-12		Nov-12	
	MoM	YoY	MoM	YoY	MoM	YoY
<b>Overall CPI</b>	0.3	10.2	0.4	7.7	-0.4	6.9
Islamabad	-0.1	8.8	0.0	8.0	-0.9	7.1
Karachi	-0.4	8.9	0.6	7.5	-0.4	7.4
Lahore	-0.4	8.2	-0.1	7.5	-0.2	7.6
Peshawar	0.0	8.2	0.0	5.3	-0.4	4.9
Quetta	0.1	8.2	1.0	8.0	0.7	8.7

### 3. Income Group wise Inflation

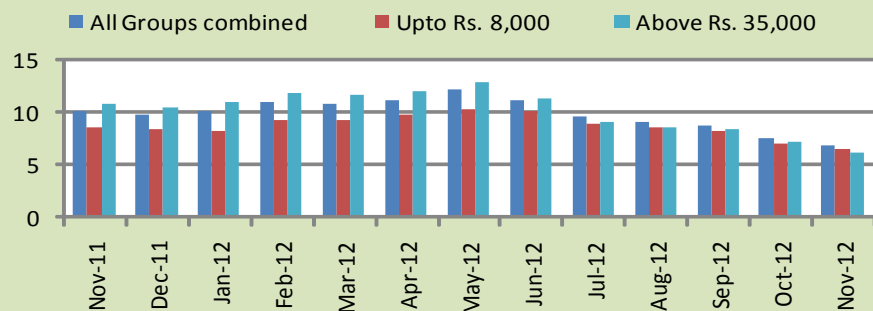
Income group- wise data showed that income group above Rs. 35,000 suffered higher inflation than the overall inflation in CPI basket during November 2012 for food group. The lowest income group (Up to Rs. 8, 000) has the lowest inflation in food group during the month of November 2012 (Table A7 of annexure-A).

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

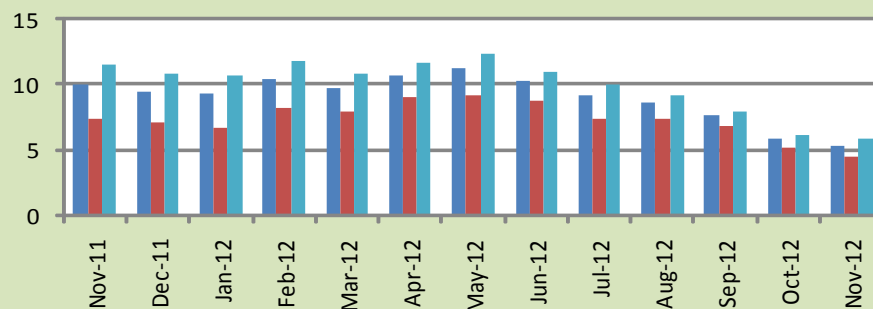
Income Groups	General			Food			Non-food		
	Nov-11	Oct-12	Nov-12	Nov-11	Oct-12	Nov-12	Nov-11	Oct-12	Nov-12
<b>All Groups Combined</b>	10.2	7.7	6.9	10.0	5.8	5.3	10.3	9.0	8.1
Up to Rs. 8,000	8.6	7.0	6.6	7.4	5.1	4.4	10.4	9.6	9.5
Rs. 8,001- 12,000	9.3	8.2	7.8	8.3	5.3	4.8	10.4	11.5	11.4
Rs. 12,001- 18,000	9.6	8.1	7.7	9.1	5.6	5.1	10.1	10.8	10.5
Rs. 18,001- 35,000	9.9	6.8	6.4	9.9	5.8	5.4	9.9	7.7	7.4
Above Rs. 35,000	10.8	7.3	6.2	11.5	6.1	5.8	10.5	7.9	6.5

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

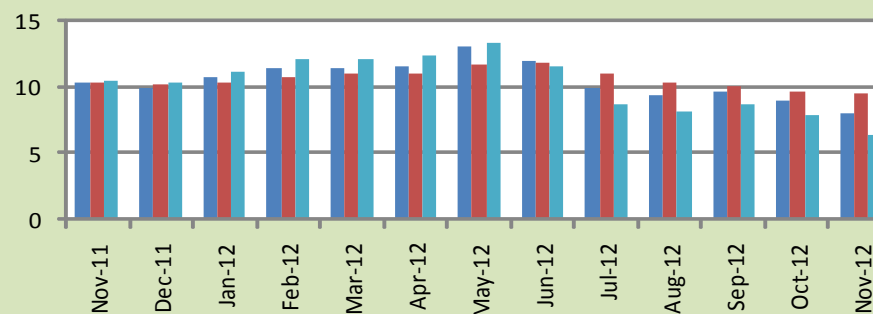
**a: CPI Overall Inflation (YoY)**



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



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



#### 4. Weighted Contribution

The weighted contribution of food group in the overall inflation increased to 32.78 percent during November 2012 from 32.26 percent in October 2012. It was 41.90 percent in November 2011.

The weighted contribution of non-food group showed decrease to touch 67.22 percent in November 2012 from 67.74 percent in October 2012.

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

Period	Food	Clothing & Footwear	Housing, Water, Elect, Gas & Other Fuel	Transport	Education	Others
Nov-11	41.90	9.98	19.57	9.28	3.97	15.30
Dec-11	40.91	10.44	18.07	10.09	3.95	16.54
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	4.53	20.57
Nov-12	32.78	14.79	15.75	10.05	4.90	21.74

## 5. Inflation Diffusion Index

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

	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12
General	47.3	37.7	51.5	51.0	57.6	53.1	55.6	27.0	41.4	41.4	48.6	54.7	39.6
Food & Non-Alcoholic Beverages	15.3	9.4	34.2	41.6	40.2	37.6	43.4	-23.4	25.4	47.8	44.2	38.3	19.1
Alcoholic Beverages & Tobacco	50.0	16.7	16.7	-16.7	33.3	66.7	50.0	33.3	100.0	83.3	83.3	33.3	83.3
Clothing & Footwear	76.3	69.5	59.3	49.2	74.6	62.7	76.3	44.1	62.7	76.3	64.4	84.7	79.7
Housing, Water, Elect, Gas & other Fuels	41.7	27.8	69.4	36.1	36.1	58.3	38.9	33.3	33.3	30.6	38.9	50.0	22.2
Furnishing & Household Equip. Maintenance etc	89.9	88.4	87.0	82.6	85.5	92.8	87.0	78.3	68.1	20.3	81.2	79.7	69.6
Health	33.3	28.2	33.3	41.0	38.5	25.6	30.8	41.0	33.3	23.1	41.0	23.1	33.3
Transport	32.6	41.9	53.5	55.8	79.1	48.8	44.2	20.9	39.5	41.9	37.2	48.8	11.6
Communication	25.0	0.0	8.3	33.3	16.7	41.7	8.3	50.0	-25.0	8.3	16.7	50.0	33.3
Recreation & Culture	25.6	12.8	38.5	28.2	46.2	35.9	74.4	17.9	17.9	23.1	10.3	35.9	17.9
Education	62.5	-43.8	25.0	50.0	56.3	50.0	31.3	0.0	25.0	43.8	31.3	43.8	12.5
Restaurant & Hotels	100.0	83.3	83.3	100.0	83.3	100.0	100.0	66.7	100.0	33.3	83.3	100.0	66.7
Miscellaneous	77.1	68.6	65.7	77.1	74.3	51.4	54.3	48.6	60.0	60.0	54.3	80.0	65.7
NFNE	59.8	47.3	58.3	54.7	63.9	57.4	57.7	44.7	47.0	38.8	49.1	62.1	46.4

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

## 6. Domestic Commodity Prices

**Table 6.1 Inflation in Domestic CPI Food Commodities**

Sr. No	Item	Unit	Nov-11		Oct-12		Nov-12	
			YoY	MoM	YoY	MoM	YoY	MoM
1	Wheat	10 Kg	-0.39	1.80	10.08	0.20	10.42	2.12
2	Wheat Flour Bag	10 Kg	-0.72	0.78	10.47	0.16	10.66	0.95
3	Rice Basmati Sup. Qlty.	Kg	12.45	1.86	19.67	0.64	19.33	1.57
4	Pulse Masoor (Washed)	Kg	-12.03	-2.57	-7.32	-0.58	-5.15	-0.30
5	Pulse Moong (Washed)	Kg	-8.33	-6.52	-17.05	-1.51	-13.07	-2.04
6	Pulse Mash (Washed)	Kg	-12.44	-2.36	-11.16	-0.31	-9.20	-0.21
7	Pulse Gram	Kg	0.56	-0.56	46.47	-0.81	44.30	-2.03
8	Vegetable Ghee (Loose)	Kg	12.20	-1.85	0.11	-1.39	1.20	-0.78
9	Sugar Refined	Kg	-20.77	-6.61	-23.90	1.28	-18.65	-0.16
10	Milk Fresh (Unboiled)	Ltr	21.13	2.16	13.02	0.11	11.76	1.03
11	Tea- Tapal Danedar	200 Gm	16.16	0.00	-1.74	0.00	9.98	11.93
12	Beef With Bone Av. Qlty.	Kg	18.60	1.92	9.03	0.54	7.03	0.05
13	Mutton Av. Qlty.	Kg	20.92	2.31	9.47	0.19	7.13	0.13
14	Chicken Farm Broiler (Live)	Kg	7.72	-6.89	-13.85	-5.80	-0.36	7.69
15	Eggs Farm	Doz	16.64	9.89	28.68	17.32	24.70	6.49
16	Potatoes	Kg	-29.19	-6.46	-1.13	-0.86	1.70	-3.79
17	Onion	Kg	-20.44	39.38	3.45	9.53	-36.74	-14.76
18	Tomatoes	Kg	42.02	0.79	-30.04	-7.48	-41.86	-16.23
19	Ginger	Kg	-42.14	-11.32	-4.26	28.00	-5.56	-12.52
20	Garlic	Kg	-45.71	-2.24	-13.11	1.39	-9.87	1.40

## 7. Global Commodity Prices

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

Item/ Group	Nov-11		Oct-12		Nov-12	
	YoY	MoM	YoY	MoM	YoY	MoM
<b>Overall</b>	15.8	1.9	0.5	-1.8	-2.8	-1.4
Food	-1.0	-0.7	7.9	-1.8	7.7	-0.9
Metals	3.7	-3.8	-8.7	1.9	-5.8	-0.7
Energy	26.1	4.2	1.3	-2.5	-4.5	-1.7
Agricultural	-7.6	-4.2	-4.9	0.5	-1.4	-0.6
Cotton	-32.7	-5.4	-25.9	-2.6	-22.7	-1.3

Source: IMF

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

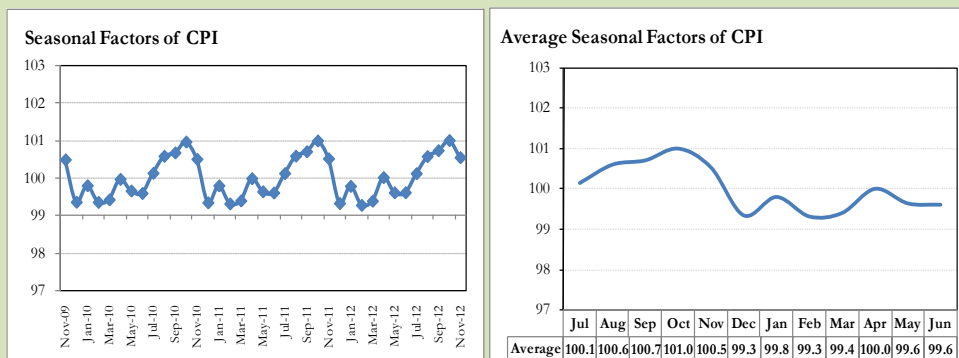
Seasonal adjustment is the process of estimating and removing the seasonal effects from a time series after decomposing it into seasonal, trend, cycle and irregular components. The purpose is to identify the different components of the time series and thus provide a better understanding of its underlying 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 November 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.

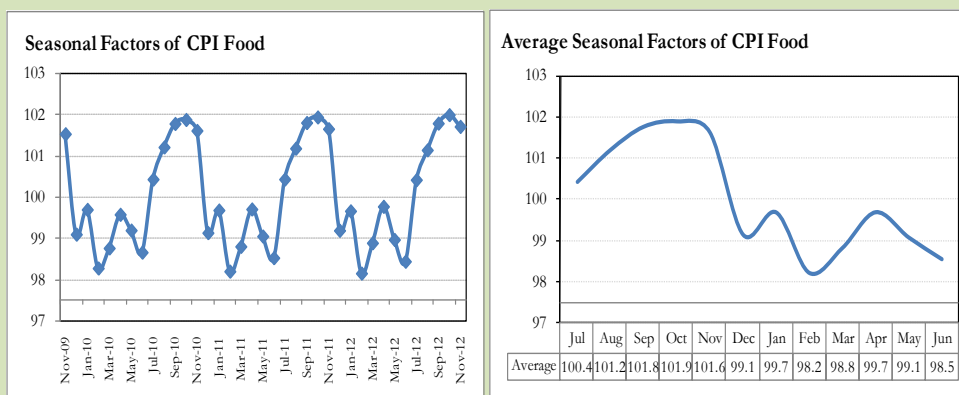


**Fig. 8.1 Seasonal Factors of CPI**



Note: Data Available in Annex Table 16.

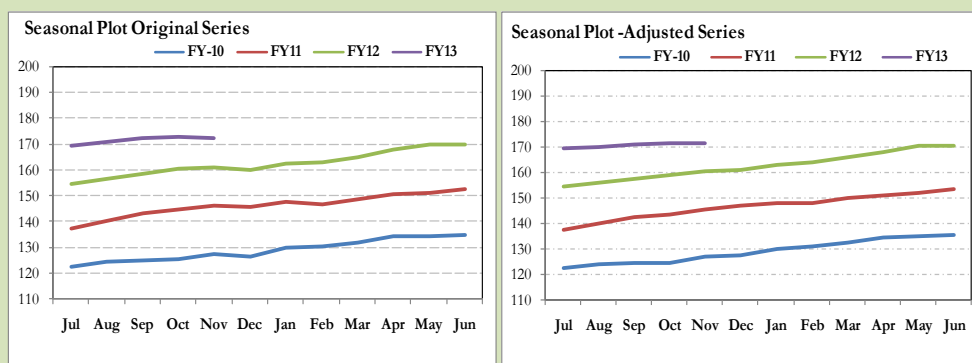
**Fig. 8.2 Seasonal Factors of CPI Food**



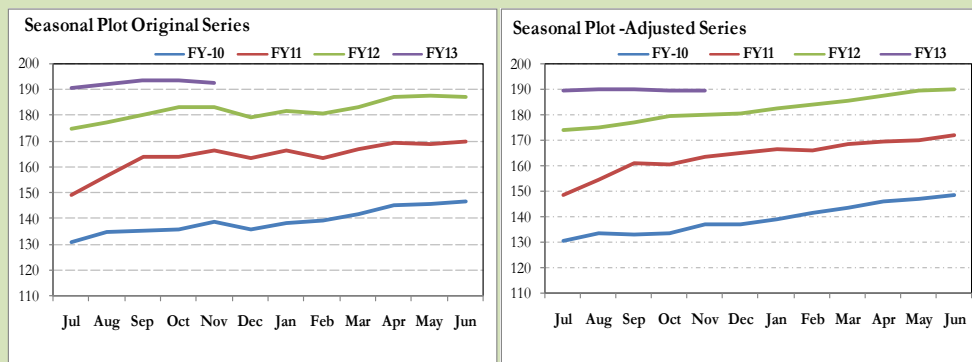
Note: Data Available in Annex Table 17.

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 November 2012 stood at 171.38 against 172.42 in original series showing a decrease of 1.04 on account of adjustment of upward seasonality in November 2012.

Seasonally adjusted CPI food group for November 2012 stood at 189.80 against 193.03 in original series showing a decrease of 3.23 on account of adjustment of upward seasonality in November 2012.

Month-on-month change of seasonally adjusted CPI series stood at -0.10% reflecting decrease during November 2012 over October 2012 and a decrease of 0.39% in original series.

Month-on-month change of seasonally adjusted CPI food group series stood at -0.05% reflecting decrease during November 2012 and a decrease of 0.33% 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 November 2012 (corresponding to the seasonally adjusted month-on-month rate) is -1.14 percent.

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

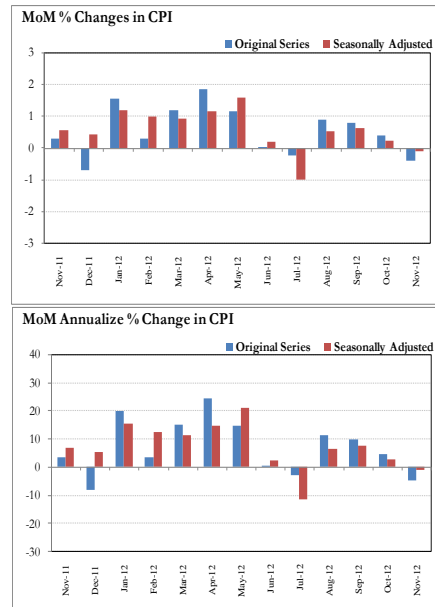
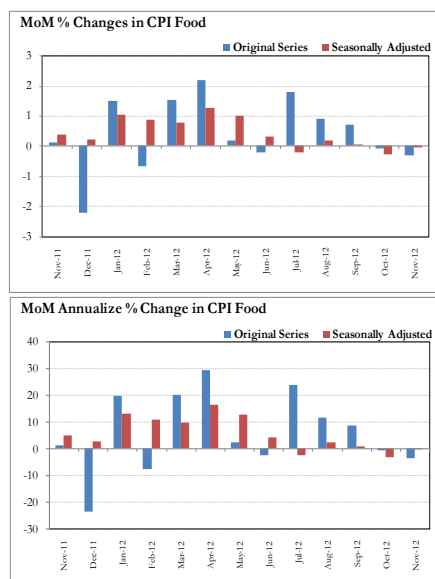


Fig. 8.6 Month-on-Month Percent Changes in CPI Food



## **Annexure A**

<b>Table A1: CPI Inflation by Groups (percent)</b>							
	Weight	MoM change			YoY change		
		Nov-11	Oct-12	Nov-12	Nov-11	Oct-12	Nov-12
<b>I. Food Group</b>	<b>37.5</b>	<b>0.1</b>	<b>-0.1</b>	<b>-0.3</b>	<b>10.0</b>	<b>5.8</b>	<b>5.3</b>
Food & Non-Alcoholic Beverages	34.8	0.1	-0.1	-0.4	10.0	5.2	4.7
Alcoholic Beverages & Tobacco	1.4	0.1	0.0	0.1	6.9	17.9	18.0
Restaurant & Hotels	1.2	0.9	1.2	0.4	13.1	10.8	10.3
<b>II. Non-Food Group</b>	<b>62.5</b>	<b>0.4</b>	<b>0.7</b>	<b>-0.4</b>	<b>10.3</b>	<b>9.0</b>	<b>8.1</b>
Clothing & Footwear	7.6	1.0	1.1	1.1	15.0	14.4	14.5
Housing, Water, Elect, Gas & other	29.4	0.1	1.3	0.0	7.4	4.2	4.2
Furnishing & Household Equip. Maint	4.2	2.2	0.8	1.0	18.0	14.7	13.4
Health	2.2	0.5	0.8	0.6	10.7	14.7	14.9
Transport	7.2	-0.1	-1.6	-5.5	13.2	15.6	9.4
Communication	3.2	-0.1	0.1	0.1	0.8	0.3	0.5
Recreation & Culture	2.0	0.3	0.4	0.2	5.1	18.3	18.1
Education	3.9	0.4	0.4	0.2	11.9	10.1	9.8
Miscellaneous	2.8	1.8	1.7	0.7	19.4	12.7	11.5
<b>Headline</b>	<b>100.0</b>	<b>0.3</b>	<b>0.4</b>	<b>-0.4</b>	<b>10.2</b>	<b>7.7</b>	<b>6.9</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)	
		Nov-11	Nov-12	Nov-11	Nov-12	Nov-11	Nov-12	Nov-11	Nov-12	Nov-11	Nov-12
<b>I. Food Group</b>	<b>5.3</b>	<b>129</b>	<b>129</b>	<b>17</b>	<b>35</b>	<b>8</b>	<b>17</b>	<b>23</b>	<b>36</b>	<b>81</b>	<b>41</b>
Food & Non-Alcoholic Beverages	4.7	117	117	17	35	7	17	19	30	74	35
Alcoholic Beverages & Tobacco	18.0	6	6	0	0	1	0	3	3	2	3
Restaurant & Hotels	10.3	6	6	0	0	0	0	1	3	5	3
<b>II. Non-Food Group</b>	<b>8.1</b>	<b>348</b>	<b>348</b>	<b>40</b>	<b>44</b>	<b>51</b>	<b>43</b>	<b>67</b>	<b>69</b>	<b>190</b>	<b>192</b>
Clothing & Footwear	14.5	59	59	9	4	1	1	8	6	41	48
Housing, Water, Elect, Gas & other Fuels	4.2	36	36	0	7	4	3	13	11	19	15
Furnishing & Household Equip. Maintenance etc	13.4	69	69	2	3	3	8	15	17	49	41
Health	14.9	39	39	14	12	7	5	4	4	14	18
Transport	9.4	43	43	1	3	7	6	7	6	28	28
Communication	0.5	12	12	5	5	2	3	4	1	1	3
Recreation & Culture	18.1	39	39	6	7	20	8	5	8	8	16
Education	9.8	16	16	2	3	2	4	3	3	9	6
Miscellaneous	11.5	35	35	1	0	5	5	8	13	21	17
<b>Overall</b>	<b>6.9</b>	<b>477</b>	<b>477</b>	<b>57</b>	<b>79</b>	<b>59</b>	<b>60</b>	<b>90</b>	<b>105</b>	<b>271</b>	<b>233</b>

Note: Prices of 10 seasonal items were not reported during the month.

Table A3: Top and Bottom 15 Contributors to CPI Inflation (YoY) in November 2012					
Top 15 Contributors			YoY Change		Weighted Contribution
Items/ Contributors	Weights	Nov-11	Nov-12		
Ranked by Weighted Contribution					
1	House Rent	21.81	7.07	6.27	16.09
2	Milk Fresh	6.68	21.11	11.81	13.73
3	Electricity	4.40	3.19	16.39	10.89
4	Wheat Flour	4.16	0.30	9.64	5.91
5	Education	3.94	11.92	9.84	4.90
6	Transport Services	2.70	9.72	9.64	4.15
7	Cigarette	1.39	6.59	18.14	3.65
8	Text Books	0.57	3.32	39.99	3.36
9	Motor Fuel	3.03	18.07	7.37	3.21
10	Meat	2.43	19.35	7.06	3.14
11	Rice	1.58	18.83	12.87	2.78
12	Footwear	1.55	1.59	16.22	2.77
13	Household Servant	1.04	28.65	18.21	2.72
14	Cooking Oil	1.75	19.56	11.76	2.69
15	Personal Equipments	0.84	23.74	14.03	2.44
Total		57.90			82.42
Bottom 15 Contributors					
1	Gas	1.58	13.55	-42.09	-13.78
2	Onion	0.51	-20.44	-36.74	-5.51
3	Sugar	1.04	-20.77	-18.65	-4.19
4	Tomatoes	0.41	42.02	-41.86	-3.48
5	Fresh Vegetable	1.77	-2.60	-3.81	-1.26
6	Pulse Moong	0.23	-8.33	-13.07	-0.68
7	Pulse Mash (Washed)	0.21	-12.44	-9.20	-0.37
8	Pulse Masoor	0.27	-11.36	-6.34	-0.23
9	Fresh Fruits	1.86	29.62	-0.30	-0.09
10	Gur	0.02	-5.17	-14.21	-0.07
11	Chicken	1.36	7.72	-0.37	-0.07
12	Medical Equipment	0.01	27.83	15.06	0.02
13	Kerosene Oil	0.01	20.32	20.60	0.02
14	Betel Leaves & Nuts	0.02	24.56	7.14	0.03
15	Blades	0.03	24.26	8.97	0.04
Total		9.33			-29.62

<b>Table A3.1: Top and Bottom 15 Contributors to CPI Inflation (MoM) in November 2012</b>					
<b>Top 15 Contributors</b>					
<b>Items/ Contributors</b>	<b>Weights</b>	<b>MoM Change</b>		<b>Weighted Contribution</b>	
		<b>Oct-12</b>	<b>Nov-12</b>		
<b>Ranked by Weighted Contribution</b>					
1 Motor Fuel	3.03	-3.97	-10.65		91.61
2 Fresh Vegetable	1.77	1.98	-7.52		42.41
3 Onion	0.51	9.52	-14.76		27.00
4 Transport Services	2.70	0.17	-2.68		21.35
5 Fresh Fruits	1.86	-9.04	-3.35		17.36
6 Tomatoes	0.41	-7.48	-16.24		15.38
7 Cooking Oil	1.75	0.45	-1.69		7.22
8 Vegetable Ghee	2.07	-0.66	-1.46		7.22
9 Potatoes	0.44	-0.86	-3.79		5.03
10 Spices	0.54	-1.36	-1.77		3.70
11 Pulse Gram	0.24	-0.81	-2.04		1.68
12 Pulse Moong	0.23	-1.51	-2.04		1.54
13 Beverages	1.20	-0.85	-0.24		0.71
14 Sugar	1.04	1.27	-0.16		0.49
15 Pulse Masoor	0.27	-0.39	-0.34		0.20
<b>Total</b>	<b>18.07</b>				<b>242.90</b>
<b>Bottom 15 Contributors</b>					
1 Milk Fresh	6.68	0.11	1.06		-22.30
2 Chicken	1.36	-5.81	7.69		-22.17
3 Tea	0.84	0.52	6.71		-16.80
4 Wheat Flour	4.16	0.17	1.11		-12.07
5 Egg	0.46	17.32	6.49		-9.36
6 Woolen Readymade Garments	0.40	2.29	5.05		-4.98
7 Household Servant	1.04	1.38	1.49		-4.26
8 Tailoring	0.88	0.34	1.38		-3.64
9 Cotton Cloth	1.73	1.45	0.88		-3.56
10 Washing Soap & Detergent	0.79	0.34	1.54		-3.42
11 Personal Equipments	0.84	2.92	0.96		-3.10
12 Woolen Cloth	0.88	1.21	0.89		-2.18
13 Personal Care	1.49	1.01	0.56		-2.17
14 Wheat	0.35	0.20	2.12		-1.84
15 Education	3.94	0.39	0.20		-1.80
<b>Total</b>	<b>25.84</b>				<b>-113.65</b>

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

Table 1: Top 15 Items/Contributors to CPI Inflation (2012) in November 2012					
Items/ Contributors		Weights	YoY Change		Weighted Contribution
			Nov-11	Nov-12	
A. Ranked by Percentage Change					
1	Pulse Gram	0.24	0.55	44.30	1.51
2	Besan	0.15	3.64	42.57	0.95
3	Text Books	0.57	3.32	39.99	3.36
4	Motor Vehicle Tax	0.11	19.48	27.23	0.32
5	Egg	0.46	16.64	24.70	1.85
6	Woolen Readymade Garments	0.40	8.56	24.26	1.23
7	Honey	0.04	8.19	23.60	0.19
8	Doctor (MBBS) Clinic Fee	0.59	14.34	22.28	1.87
9	Beans	0.03	16.11	20.81	0.09
10	Kerosene Oil	0.01	20.32	20.60	0.02
11	Fire Wood Whole	0.23	25.46	20.06	0.79
12	Utensils	0.32	12.47	19.72	0.83
13	Dopatta	0.44	22.95	19.38	1.21
14	Cleaning & Laundering	0.21	15.56	18.30	0.56
15	Mechanical Service	0.46	11.23	18.29	1.15
Total		4.24			15.94
B. Ranked by Weights					
1	House Rent	21.81	7.07	6.27	16.09
2	Milk Fresh	6.68	21.11	11.81	13.73
3	Electricity	4.40	3.19	16.39	10.89
4	Wheat Flour	4.16	0.30	9.64	5.91
5	Education	3.94	11.92	9.84	4.90
6	Communication & Apparatus	3.15	0.77	0.32	0.11
7	Motor Fuel	3.03	18.07	7.37	3.21
8	Transport Services	2.70	9.72	9.64	4.15
9	Meat	2.43	19.35	7.06	3.14
10	Vegetable Ghee	2.07	16.64	3.47	1.00
11	Fresh Fruits	1.86	29.62	-0.30	-0.09
12	Fresh Vegetable	1.77	-2.60	-3.81	-1.26
13	Cooking Oil	1.75	19.56	11.76	2.69
14	Cotton Cloth	1.73	18.05	7.26	1.67
15	Rice	1.58	18.83	12.87	2.78
Total		63.08			68.92
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 6.9 percent in November, 2012.					

Table A3.3: Top Ten Contributors to CPI Food Inflation (YoY) in November 2012					
Items/ Contributors		Weights	YoY Change		Weighted Contribution
			Nov-11	Nov-12	
A. Ranked by Weighted Contribution					
1	Milk Fresh	6.68	21.11	11.81	13.73
2	Wheat Flour	4.16	0.30	9.64	5.91
3	Cigarette	1.39	6.59	18.14	3.65
4	Meat	2.43	19.35	7.06	3.14
5	Rice	1.58	18.83	12.87	2.78
6	Cooking Oil	1.75	19.56	11.76	2.69
7	Ready Made Food	1.23	13.12	10.31	2.07
8	Egg	0.46	16.64	24.70	1.85
9	Pulse Gram	0.24	0.55	44.30	1.51
10	Bakery & Confectionary	1.16	11.23	7.93	1.32
Total		21.08			38.64
B. Ranked by Percentage Change					
1	Pulse Gram	0.24	0.55	44.30	1.51
2	Besan	0.15	3.64	42.57	0.95
3	Egg	0.46	16.64	24.70	1.85
4	Honey	0.04	8.19	23.60	0.19
5	Beans	0.03	16.11	20.81	0.09
6	Cigarette	1.39	6.59	18.14	3.65
7	Milk Powder	0.11	16.02	15.89	0.26
8	Gram Whole	0.16	24.19	13.55	0.39
9	Rice	1.58	18.83	12.87	2.78
10	Milk Fresh	6.68	21.11	11.81	13.73
Total		10.84			25.39
C. Ranked by Weights					
1	Milk Fresh	6.68	21.11	11.81	13.73
2	Wheat Flour	4.16	0.30	9.64	5.91
3	Meat	2.43	19.35	7.06	3.14
4	Vegetable Ghee	2.07	16.64	3.47	1.00
5	Fresh Fruits	1.86	29.62	-0.30	-0.09
6	Fresh Vegetable	1.77	-2.60	-3.81	-1.26
7	Cooking Oil	1.75	19.56	11.76	2.69
8	Rice	1.58	18.83	12.87	2.78
9	Cigarette	1.39	6.59	18.14	3.65
10	Chicken	1.36	7.72	-0.37	-0.07
Total		25.06			31.47
Note: Weighted contribution is estimated by multiplying the weights by the price change of an item; this is then reported as a share in YoY change in CPI Food, which is 5.3 percent in November, 2012.					



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

Items/ Contributors		Weights	YoY Change		Weighted Contribution
			Nov-11	Nov-12	
A. Ranked by Weighted Contribution					
1	House Rent	21.81	7.07	6.27	16.09
2	Electricity	4.40	3.19	16.39	10.89
3	Education	3.94	11.92	9.84	4.90
4	Transport Services	2.70	9.72	9.64	4.15
5	Text Books	0.57	3.32	39.99	3.36
6	Motor Fuel	3.03	18.07	7.37	3.21
7	Footwear	1.55	1.59	16.22	2.77
8	Household Servant	1.04	28.65	18.21	2.72
9	Personal Equipments	0.84	23.74	14.03	2.44
10	Tailoring	0.88	15.98	16.08	2.25
Total		40.78			52.78
B. Ranked by Percentage Change					
1	Text Books	0.57	3.32	39.99	3.36
2	Motor Vehicle Tax	0.11	19.48	27.23	0.32
3	Woolen Readymade Garments	0.40	8.56	24.26	1.23
4	Doctor (MBBS) Clinic Fee	0.59	14.34	22.28	1.87
5	Kerosene Oil	0.01	20.32	20.60	0.02
6	Fire Wood Whole	0.23	25.46	20.06	0.79
7	Utensils	0.32	12.47	19.72	0.83
8	Dopatta	0.44	22.95	19.38	1.21
9	Cleaning & Laundering	0.21	15.56	18.30	0.56
10	Mechanical Service	0.46	11.23	18.29	1.15
Total		3.33			11.35
C. Ranked by Weights					
1	House Rent	21.81	7.07	6.27	16.09
2	Electricity	4.40	3.19	16.39	10.89
3	Education	3.94	11.92	9.84	4.90
4	Communication & Apparatus	3.15	0.77	0.32	0.11
5	Motor Fuel	3.03	18.07	7.37	3.21
6	Transport Services	2.70	9.72	9.64	4.15
7	Cotton Cloth	1.73	18.05	7.26	1.67
8	Gas	1.58	13.55	-42.09	-13.78
9	Footwear	1.55	1.59	16.22	2.77
10	Personal Care	1.49	17.93	10.33	2.24
Total		45.39			32.27

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 November, 2012.

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

Groups	Decrease or no change	Subdued increase (Up to 5%)	Moderate increase (5 to 10%)	More than 10% increase
Food & Non-Alcoholic Beverages	Tomatoes, Onion, Chillies Green, Spinach, Turnip, Carrot, Sugar Refined, Radish, Malta/Mosambi, Bottlegourd	Mineral Water Nestle 1.5 Litre, Tomato Ketchup Ahmed/Mitchells, Custard Powder Rafhan 300, Salt Powdered (National/Shan)	Tapal Danedar Tea 200 Gm, Samosa (Vegetable), Pastry Av.Qlty., Biscuit-Bakery (Loose), Wheat Flour Avg. Qlty	Peas, Chillies Powd.National 200 Gm, Pulse Gram, Besan Av. Qlty., Gram Whole Black Av Qlty., Pepper Black National, Eggs Farm, Honey Langanese 500 Gm., Ice, Guava, Beans (Lal Lobia), Powder Milk Nido 400Gm.
Alcoholic Beverages & Tobacco			Cigarettes Gold Leaf 20,S, Betel Nuts, Betel Leaves	Cigarettes K-20,S, Cigarettes Capstan 20,S, Cigarettes Morven Gold 20,S
Clothing & Footwear	Brassier Av.Qlty, Gents Shoe, Art 1109 Servis, Sports Shoes, Child Shoe Power Lite Bata	Long Cloth 57" Gul Ahmed/Al Karam	Pant Cloth Wash & Wear Av.Qlty, Shoe Repair Half Sole, Sewing Thread/Reel, Georgette Av.Qlty, Azarband Cotton Avg. Qlty, Tailoring Coat-Pant Suit	Brassier Sup. Qlty, Secondhand Sweater For Men, Gents Spoung Chappal Bata, Ladies Spoung Chappal Bata, Ladies Sandal Bata, Foot Wear Local (Children), Washing Charges Paint & Shirt, Pullover Gents Oxford/Bon, Dopatta Georgette Av.Qlty
Housing, Water, Elect, Gas & other Fuels	Gas Chrg All Over 500 Mmbtu, Gas Chrg Over 300 - 500 Mmbtu, Gas Chrg Overall/ Combined	Water Charges Per House, Cement Blocks (6"X8"X12"), Iron Bar (M.S. Bar) 1/2"	Bajree, Mason (Raj) Wage Rate, Cement (Local), Elect. Charges Upto 50 Units, Timber Shesham Log, House Rent For Q-I	Elect. Charges 01 - 100 Units, Kerosene Oil, Firewood Whole, Elect. Charges 101 - 300 Units, Elect. Charges Overall/ Combined, Electrician Wage Rate, Elect. Charges 301 - 1000 Units, Electrician Wage Rate, Carpenter Wage Rate
Furnishing & Household Equip. Maintenance etc	Washing Machine (Singer), Match Box (Small), Bulb Philips 100-Watt	Surf Excel 400 Gms Poly Bag, Tube Light Philips 40 Watt, Sewing Machine (Singer), Pedestal Fan 22" Super Qlty, Air conditioner 1.5 Ton PEL	Hotpot Set Plastic 3 Pcs, Aluminum Cooking Pan, Almirah (Steel), Cleanser Powder Vim 1000 Gms, Chair Plastic (Chairman) Av. Qlty	Dinner Set Plastic 72 Pcs, Robin Blue (35 Gms), Boot Polish Cherry/Kiwi 50 MI, Elect. Iron Philips, Dari Cotton (6X2 1/2), Lota Plastic (Med Size) Avg. Qlty, Table Shesham Wood, Water Set Jug+6 Glasses, Hand Stitching Needle
Health	Polyfax Eye Ointment, Lederplex Syrup, Amoxil Capsule 250 Mg., Entex Tab., Sepran Tablets, Calcium Syrup Sandoz	Ventolin Tab. 2Mg. Betnesol Eye Drops, Flagyl Tab. 200 Mg, Daonil Tab. 5 Mg. Renitec Tab. 5 Mg.	ECG Charges, Dettol (Medium), Sugar Test (Random/Fasting), Betnovate- N Ointment 5 Gm	Hyderylin Syrup 120 ML O.R.S. (Nimcol), Disprin Tab., Panadol Tab. Extra/Plain, Trisil Tab., Glycerin Small Bottle, Doctor (MBBS) Clinic Fee, Gripe-Water Woodward's, Cac. 1000 Tab, Blood Test (Cp) Charges
Transport	CNG, Bus Fare Outside City (Non A/C), Train Fare Eco. > 500 Km.	Minibus Fare Min.Within City, Bus Fare Outside City (A/C), Air Fare Economy Class., Motorcycle Yamaha 100 Cc	Suzuki Fare Min.Within City, Auto Rickshaw Fare, Tyre Cycle, Tyre Motor Cycle Without Tube, Suzuki Fare Maximum Within City	Platform Ticket, Taxi 4 Seater Fare, Car Tax For 800 Cc To 1300 Cc, Cycle Overhauling Charges, Train Fare Eco. 1-100 Km., Train Fare Ist Slp.101-50, Train Fare Ist Slp. > 500, Train Fare A/C Slp > 500K, Train Fare A/C Slp. 1-100
Communication	Mobile Set Nokia/Sony/Ericsson Av.Qlty, Postal Envelope Domestic	Fax Charges (Local), Telephone Set Av. Qlty, Mobile Cell Charges	T.C.S. Ch. Min.Within Zone	Postal Envelope For Saudi Arabia, Internet Charges, Postal Registration Charges
Recreation & Culture	Video Game Sega 16 Byte, English Book BA/B.Sc, TV License Fee Domestic, Daily "Nawa-e-Waqt", Daily "Jang", Weekly "Mag"	Personnel Computer (Branded), V.C.P. Panasonic/LG/National, Tape Recorder Cassette (Blank), Urdu Book BA/B.Sc, Pakistan Studies Book BA/B.Sc	DVD/VCD Player Panasonic/LG, Pencil Goldfish/Deer, Video Cassette Blank. Tdk/Sony, Cable Charges, Eng. Book Ist. Yr Complete Set	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 Calss V (T.B.Board), Cinema Non-A/C High Class, Monthly "Naunehal Digest"
Education	MBA Tuition Fee, Govt. College Fee 4Th. Year, Pvt Eng. College Fee (Ist Year)	I.T. Tuition Fees, Govt. University Fee MSc/ MA, Govt. College Fee Ist. Year	Pvt School Fee Eng. Med (Class-I), Coaching Charges For Class XI/ XII Commerce Group	Govt. Engg. College. Fee Ist Year, Pvt School Fee Eng. Med (Class-X), Pvt School Fee Eng. Med (Class-V), Pvt School Fee Eng. Med (Class- VI), Coaching Fee For Class IX/ X
Restaurant & Hotels			Cooked Dal (Av. Hotel), Bread Tandoori St. Size, Tea Prepared (Ordinary)	Chicken Biryani Full/Double, Cooked Mutton (Av. Hotel), Cooked Beef (Av. Hotel)
Miscellaneous		Toilet Soap Lux 95 Gms, Lipstick S. Miss/Medora, Shampoo Sunsilk/Pantene 100 ML	Gold Tezabi 24 Ct, Blade Treet Ordinary (10), Toothbrush Shield, Wrist Watch Gents Citizen	Wall Clock Quartz Av.Qlty, Artificial Jewellery Set, Nail Polish S. Miss/Medora, Toothpaste Med Size Colgate 70Gms, Toothpaste MacLean's 70 Gms, Purse Ladies (Leather) Av. Qlty

**Table A5: City- wise CPI Inflation by Income Groups, November 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	7.5	-1.1	6.6	0.0	8.7	-0.5	7.7	-1.1	6.7	0.2	8.9
2 Islamabad	-0.1	8.9	-0.8	5.8	0.9	13.3	-0.1	7.9	-0.5	6.1	0.4	10.1
3 Lahore	0.0	7.6	0.2	7.0	-0.1	8.5	0.0	7.7	0.1	7.0	0.0	8.6
4 Gujranwala	-0.5	5.7	-1.2	5.2	0.4	6.3	-0.5	5.6	-1.1	5.1	0.3	6.1
5 Sialkot	-0.3	7.9	-0.7	8.9	0.1	6.6	-0.3	8.0	-0.6	9.3	0.1	6.4
6 Faisalabad	-0.5	5.2	-1.1	5.3	0.3	5.2	-0.3	5.3	-0.8	5.7	0.2	4.9
7 Multan	-0.9	6.4	-1.6	4.1	0.1	9.4	-0.9	6.5	-1.6	4.4	0.0	9.0
8 Sargodha	-0.8	4.7	-1.6	1.2	0.0	8.9	-0.7	5.2	-1.4	1.8	0.1	8.7
9 Bahawalpur	-0.6	9.2	-1.4	5.0	0.4	14.3	-0.4	9.8	-1.1	6.1	0.3	13.8
10 Karachi	-0.3	6.2	-0.1	5.4	-0.7	7.2	-0.3	6.4	0.2	6.0	-0.8	6.8
11 Hyderabad	-0.2	5.5	-0.4	4.3	0.1	7.2	-0.2	5.8	-0.4	4.6	0.0	7.3
12 Sukkur	-0.8	7.4	-1.5	6.1	0.0	9.2	-0.7	7.7	-1.4	6.5	0.0	9.1
13 Larkana	-0.9	6.0	-1.5	0.4	0.0	13.5	-0.8	7.1	-1.5	1.8	0.0	13.3
14 Peshawar	0.2	5.7	-0.5	3.0	0.9	9.2	0.2	6.0	-0.5	3.5	0.9	8.7
15 Bannu	0.2	9.0	0.1	6.5	0.4	11.9	0.3	9.5	0.2	6.9	0.4	12.5
16 Quetta	0.6	8.7	0.4	5.8	0.8	12.8	0.7	9.3	0.6	6.4	0.9	12.8
17 Khuzdar	0.8	6.4	0.8	3.4	0.7	10.1	0.8	6.7	0.8	3.7	0.9	10.0
	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	-0.4	7.1	-0.9	7.1	0.0	7.0	-0.3	7.5	-0.6	7.3	-0.1	7.6
2 Islamabad	-0.1	7.0	-0.2	6.5	0.1	7.5	-0.1	7.1	0.1	6.6	-0.2	7.5
3 Lahore	0.1	7.2	0.2	7.8	-0.1	6.5	0.0	7.8	0.2	8.1	-0.2	7.5
4 Gujranwala	-0.5	4.8	-1.1	5.4	0.1	4.1	-0.4	5.3	-1.0	5.5	0.1	5.1
5 Sialkot	-0.3	7.5	-0.6	9.9	0.0	5.2	-0.3	7.7	-0.5	10.2	0.0	5.6
6 Faisalabad	-0.3	4.5	-0.6	6.2	0.0	2.8	-0.2	5.1	-0.4	6.5	-0.1	3.9
7 Multan	-0.8	5.5	-1.6	4.4	-0.1	6.7	-0.8	6.3	-1.5	4.6	-0.2	7.7
8 Sargodha	-0.7	5.0	-1.4	2.5	0.0	7.3	-0.6	5.8	-1.3	2.9	0.0	8.2
9 Bahawalpur	-0.3	9.7	-0.9	6.4	0.3	12.9	-0.1	11.4	-0.7	7.2	0.3	14.7
10 Karachi	-0.2	5.8	0.4	6.5	-0.9	5.2	-0.1	6.7	0.7	6.9	-0.9	6.4
11 Hyderabad	-0.2	4.9	-0.4	4.9	0.0	5.0	-0.2	5.5	-0.4	5.0	-0.1	5.9
12 Sukkur	-0.7	7.2	-1.3	7.0	0.0	7.5	-0.6	8.3	-1.2	7.9	-0.1	8.7
13 Larkana	-0.7	6.8	-1.4	2.5	-0.1	11.3	-0.8	7.8	-1.6	3.7	-0.1	11.5
14 Peshawar	0.1	4.8	-0.6	3.3	0.7	6.2	-0.1	5.1	-0.5	3.3	0.3	6.6
15 Bannu	0.2	8.6	0.1	7.1	0.3	10.2	0.3	8.9	0.4	7.5	0.3	10.2
16 Quetta	0.9	8.7	0.9	6.8	0.9	10.6	0.8	9.0	0.9	6.9	0.7	11.0
17 Khuzdar	0.8	6.9	0.9	4.3	0.8	9.6	0.8	7.5	1.0	4.4	0.7	10.2
	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	-0.8	7.3	-0.4	7.3	-0.9	7.4	-0.6	7.4	-0.6	7.3	-0.7	7.5
2 Islamabad	-1.0	6.9	0.2	6.3	-1.7	7.2	-0.9	7.1	0.2	6.3	-1.7	7.7
3 Lahore	-0.5	7.8	0.3	8.5	-0.9	7.4	-0.2	7.6	0.2	8.1	-0.6	7.3
4 Gujranwala	-0.7	5.3	-1.0	5.3	-0.5	5.3	-0.5	5.2	-1.1	5.4	-0.2	5.0
5 Sialkot	-0.2	7.1	-0.2	10.5	-0.2	5.4	-0.3	7.4	-0.4	10.1	-0.1	5.4
6 Faisalabad	-0.6	5.0	-0.1	7.2	-0.8	3.9	-0.4	4.8	-0.5	6.4	-0.3	3.7
7 Multan	-0.9	6.2	-1.3	5.1	-0.8	6.8	-0.9	6.0	-1.5	4.7	-0.4	7.0
8 Sargodha	-0.4	7.1	-1.1	4.4	-0.1	8.3	-0.6	5.6	-1.3	2.9	-0.1	7.4
9 Bahawalpur	-0.1	11.9	-0.6	8.5	0.2	13.5	-0.2	10.5	-0.9	6.8	0.2	13.1
10 Karachi	-0.6	8.1	1.0	7.1	-1.4	8.7	-0.4	7.4	0.8	6.8	-1.3	7.9
11 Hyderabad	-0.4	5.4	-0.1	5.4	-0.6	5.4	-0.3	5.2	-0.3	5.0	-0.3	5.4
12 Sukkur	-0.7	8.6	-0.9	9.0	-0.6	8.4	-0.7	7.8	-1.2	7.5	-0.3	8.0
13 Larkana	-0.6	8.0	-1.5	4.2	-0.2	9.9	-0.8	7.0	-1.5	2.6	-0.3	10.2
14 Peshawar	-0.9	4.7	-0.2	3.2	-1.2	5.4	-0.4	4.9	-0.4	3.3	-0.3	6.0
15 Bannu	0.0	9.6	-0.3	9.0	0.1	9.9	0.2	9.1	0.1	7.4	0.3	10.3
16 Quetta	0.7	8.9	1.1	7.3	0.4	9.7	0.7	8.7	0.9	6.8	0.6	10.1
17 Khuzdar	0.6	8.7	1.0	4.7	0.4	10.7	0.8	7.0	0.9	3.9	0.8	9.2

<b>Table A6: City- wise CPI Inflation (YoY) November, 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>
Bahawalpur	10.5	6.8	13.1	Jhang	6.4	1.6	9.7
Mithi	10.1	4.7	14.1	Muzaffargarh	6.1	4.1	7.6
Loralai & Cantt	9.9	5.9	12.7	Multan	6.0	4.7	7.0
Bahawalnagar	9.7	5.7	12.5	Sargodha	5.6	2.9	7.4
D. I. Khan	9.3	5.3	12.3	Abbotabad	5.6	4.9	6.1
Sahiwal	9.2	6.7	11.0	Jhelum	5.5	3.1	7.3
Mardan	9.2	8.3	9.8	Dadu	5.5	4.1	6.4
Bannu	9.1	7.4	10.3	Hyderabad	5.2	5.0	5.4
Mianwali	9.0	4.8	12.1	Gujranwala	5.2	5.4	5.0
D.G. Khan	8.9	4.4	12.1	Mingora	5.1	1.1	7.9
Quetta	8.7	6.8	10.1	Attock	5.0	1.7	7.3
Nawabshah	8.4	5.7	10.2	Peshawar	4.9	3.3	6.0
Rahim Yar Khan	7.8	4.1	10.6	Faisalabad	4.8	6.4	3.7
Sukkur	7.8	7.5	8.0	Dera Mrd.Jamali	4.5	2.9	5.7
Turbat	7.7	6.2	8.6	Wazirabad	4.4	3.6	4.9
Lahore	7.6	8.1	7.3				
Mir Pur Khas	7.6	2.8	11.1				
Vehari	7.5	5.2	9.2				
Karachi	7.4	6.8	7.9				
Rawalpindi	7.4	7.3	7.5				
Sialkot	7.4	10.1	5.4				
Islamabad	7.1	6.3	7.7				
Khuzdar	7.0	3.9	9.2				
Larkana	7.0	2.6	10.2				
Gawadar	6.9	5.4	8.0				
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		
	Nov-11	Oct-12	Nov-12	Nov-11	Oct-12	Nov-12
<b><u>Up to Rs. 8000</u></b>						
General	0.2	0.4	-0.2	8.6	7.0	6.6
Food	0.0	0.0	-0.6	7.4	5.1	4.4
Non-food	0.4	1.0	0.3	10.4	9.6	9.5
<b><u>Rs. 8001- 12000</u></b>						
General	0.2	0.4	-0.2	9.3	8.2	7.8
Food	0.0	-0.1	-0.5	8.3	5.3	4.8
Non-food	0.4	0.9	0.2	10.4	11.5	11.4
<b><u>Rs. 12001- 18000</u></b>						
General	0.2	0.4	-0.2	9.6	8.1	7.7
Food	0.0	-0.1	-0.4	9.1	5.6	5.1
Non-food	0.4	0.9	0.1	10.1	10.8	10.5
<b><u>Rs. 18001- 35000</u></b>						
General	0.2	0.4	-0.2	9.9	6.8	6.4
Food	0.1	-0.1	-0.3	9.9	5.8	5.4
Non-food	0.3	0.8	0.0	9.9	7.7	7.4
<b><u>Above Rs. 35000</u></b>						
General	0.4	0.4	-0.6	10.8	7.3	6.2
Food	0.2	-0.1	-0.1	11.5	6.1	5.8
Non-food	0.5	0.6	-0.9	10.5	7.9	6.5
<b><u>All income groups</u></b>						
General	0.3	0.4	-0.4	10.2	7.7	6.9
Food	0.1	-0.1	-0.3	10.0	5.8	5.3
Non-food	0.4	0.7	-0.4	10.3	9.0	8.1

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

Sr.No.	Items	Unit	Prices Nov-12	Percentage change	
				YoY	MoM
1	Wheat	10Kg.	293.8	10.1	1.8
2	Wheat Flour Bag	10Kg.	338.6	12.1	1.2
3	Rice Basmati Broken	Kg.	68.4	14.2	0.5
4	Rice Irri-6	Kg.	49.2	8.8	0.3
5	Bread Plain Med. Size (340-400 Gm.)	Each	33.4	7.1	0.8
6	Beef	Kg.	267.7	6.2	0.2
7	Mutton	Kg.	511.3	7.2	0.1
8	Chicken Live (Farm)	Kg.	129.5	1.8	7.5
9	Milk Fresh	Litr	64.8	13.6	0.3
10	Curd	Kg.	75.3	12.5	0.2
11	Milk Powdered Nido	500G	290.0	18.4	0.0
12	Egg Hen (Farm)	Doz.	112.1	26.6	6.3
13	Mustard Oil	Kg.	186.0	4.8	0.0
14	Cooking Oil (Tin)	2.5Ltr	531.1	7.3	-1.5
15	Veg. Ghee (Tin)	2.5Kg.	521.8	5.4	-1.4
16	Veg. Ghee Loose	Kg.	160.7	-0.1	-1.1
17	Bananas	Doz.	54.7	13.1	-8.2
18	Masoor Pulse Washed	Kg.	97.2	-7.1	0.0
19	Moong Pulse Washed	Kg.	113.1	-12.7	-1.6
20	Mash Pulse Washed	Kg.	133.8	-9.1	-0.2
21	Gram Pulse Washed	Kg.	104.1	45.3	-1.9
22	Potatoes	Kg.	30.7	7.6	0.5
23	Onions	Kg.	34.8	-34.5	-15.6
24	Tomatoes	Kg.	44.0	-43.6	-12.9
25	Sugar	Kg.	54.1	-17.1	1.2
26	Gur	Kg.	74.4	-11.4	1.1
27	Salt Powdered Loose (Lahori)	Kg.	8.6	7.5	0.1
28	Red Chilies Powder Loose	Kg.	266.5	-16.6	-5.3
29	Garlic	Kg.	119.4	15.1	1.0
30	Tea (Yellow Label )	200Gm.	140.4	6.7	6.6
31	Cooked Beef Plate	Each	67.9	13.8	1.8
32	Cooked Dal Plate	Each	39.7	8.7	1.1
33	Tea Prepared (Sada)	Cup	15.2	9.1	0.2
34	Cigarettes K-2 (20'S)	20'S	32.2	12.1	0.4
35	Long Cloth (Coarse Latha)	Mtr.	144.6	50.0	0.8
36	Shirting	Mtr.	118.8	10.5	0.5
37	Lawn	Mtr.	160.0	57.0	-0.1
38	Georgette (Voil Printed)	Mtr.	99.0	16.4	0.9
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	119.2	20.9	-0.1
45	Firewood	40Kg	485.3	13.8	2.4
46	Energy Savor 14 Watts	Each	148.6	7.0	0.4
47	Washing Soap (200-250 Gm.)	Cake	20.8	16.1	0.4
48	Match Box	Each	1.1	2.8	0.0
49	Petrol	Litr	103.0	16.4	-1.4
50	Diesel	Litr	113.0	18.8	-0.6
51	L.P.G.( 11 Kg Cylinder.)	Each	1542.2	17.5	1.8
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>57.0</b>	<b>7.5</b>
<b>Median</b>				<b>7.6</b>	<b>0.1</b>
<b>Minimum</b>				<b>-43.6</b>	<b>-15.6</b>

**Table A9: Distribution of Price Changes (YoY) - WPI Items: November 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, Edible Roots/Potatoes, Cotton Seeds, Stimulant and Spice Crops, Fibre Crops, Sugar Crops, Dry Fruits, Poultry	Pulses, Unmanufactured Tobacco	Other Oil Seeds, Rice, Maize, Millet/Bajra, Hides and Fur Skins, Raw, Sorghum/Jowar, Raw Animal Material/Wool	Eggs, Fish Live Fresh or Chilled, Fresh Fruits, Milk From Bovine Animals, Fuel Wood in Logs, 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, Nylon Yarn, Blended Yarn, Chocolate, Sugar Confectionary	Quilts, Beverages, Mineral Water, Milk and Cream in Solid Form, Vegetable Oil Refined, Other Leather N.E.C, Fruit Juices, Woolen Carpets, Leather Without Hairs, Vegetable Ghee	Spices, Wheat Flour, Other Fabrics, Ice Cream, Ready Made Garments, Cotton Yarn, Vegetables & Fruit Juices, Meat of Animals, Cotton Fabrics, Other Food Products, Coffee and Tea	Other Cereal Flour, Footwear, Bed Sheets, Tobacco Products, Blankets, Woven Fabrics, Hosiery Products, Dairy Products N.E.C, Processed Liquid Milk, Towels, Silk and Rayon Fabrics, Oil Cakes, Dried Fruits & Nuts
<b>Other Transportable Goods except Metal Products, Machinery and Equipments</b>	Furnace Oil, Other Glass Articles, Dying Materials	Bricks Blocks and Tiles, Fertilizers, Insecticides	Timber, Plastic Products, Mobil Oil, Chemicals, Coke, Auto Tyres	Hard Board, Paints & Varnishes, Printing Paper, Medicines, Cement, Pesticides, Ceramics and Sanitary, Kerosene Oil, Diesel Oil, Motor Sprit, Bed Foams, Soaps & Detergent, Matches, Glass Sheets
<b>Metal Product Machinery &amp; Equipment</b>	Tractors, Radio and Television, Pig Iron, Engines and Motors, Vacuum Pumps, Concrete Mixer	Lighting Equipments, Motor Cycles, Cultivators, Refrige,Wash& Sew Mach,Iron,Fan, Pipe Fittings, Steel Bars & Sheets, Electrical Wires, Lathe Machines	Motor Vehicles, Bicycles, Steel Products, Chuff Cutter, Air Conditioners	

<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>Nov-11</b>	<b>Oct-12</b>	<b>Nov-12</b>
<b>General</b>	<b>100.00</b>	<b>161.25</b>	<b>173.10</b>	<b>172.42</b>
<b>Food &amp; Non-Alcoholic Beverages.</b>	<b>34.83</b>	<b>184.17</b>	<b>193.56</b>	<b>192.84</b>
1 Wheat	0.35	156.86	169.62	173.21
2 Wheat Flour	4.16	164.29	178.16	180.13
3 Wheat Product	0.10	161.67	171.84	173.21
4 Besan	0.15	165.36	236.28	235.75
5 Rice	1.58	152.32	171.96	171.92
6 Cereals	0.16	187.46	201.55	203.04
7 Bakery & Confectionary	1.16	161.20	173.13	173.99
8 Nimco	0.46	177.99	196.94	197.49
9 Meat	2.43	204.34	218.61	218.77
10 Chicken	1.36	155.91	144.25	155.34
11 Fish	0.30	175.02	190.61	193.18
12 Milk Fresh	6.68	194.40	215.09	217.36
13 Milk Product	0.63	190.31	208.96	209.90
14 Milk Powder	0.11	159.01	182.84	184.27
15 Egg	0.46	183.90	215.35	229.32
16 Mustard Oil	0.10	152.21	161.41	160.75
17 Cooking Oil	1.75	145.48	165.39	162.59
18 Vegetable Ghee	2.07	155.12	162.88	160.51
19 Dry Fruits	0.25	193.54	201.35	204.95
20 Fresh Fruits	1.86	183.09	188.87	182.54
21 Pulse Masoor	0.27	152.29	143.13	142.64
22 Pulse Moong	0.23	247.82	219.90	215.42
23 Pulse Mash (Washed)	0.21	212.55	193.39	192.99
24 Pulse Gram	0.24	161.66	238.12	233.27
25 Gram Whole	0.16	200.26	227.51	227.39
26 Beans	0.03	177.36	211.70	214.27
27 Potatoes	0.44	193.36	204.38	196.64
28 Onion	0.51	331.44	245.99	209.68
29 Tomatoes	0.41	224.42	155.77	130.48
30 Fresh Vegetable	1.77	209.00	217.38	201.04
31 Sugar	1.04	240.01	195.57	195.25
32 Gur	0.02	264.16	224.78	226.61
33 Honey	0.04	204.13	246.00	252.31
34 Sweet Meet	0.25	191.34	204.05	205.11
35 Beverages	1.20	160.53	168.93	168.53
36 Jam, Tomato Ketchup & Pickle	0.25	169.65	174.76	178.86
37 Condiments	0.27	191.83	212.16	212.58
38 Spices	0.54	248.34	262.27	257.64
39 Tea	0.84	200.77	203.23	216.87
<b>Alcoholic Beverages, Tobacco</b>	<b>1.41</b>	<b>161.67</b>	<b>190.43</b>	<b>190.69</b>
40 Cigarette	1.39	161.51	190.62	190.81
41 Betel Leaves & Nuts	0.02	170.94	178.37	183.14
<b>Clothing &amp; Footwear</b>	<b>7.57</b>	<b>150.36</b>	<b>170.38</b>	<b>172.18</b>
42 Cotton Cloth	1.73	148.82	158.22	159.62
43 Woolen Cloth	0.88	168.02	190.45	192.14
44 Ready Made Garment	0.97	148.22	172.07	172.85
45 Woolen Readymade Garments	0.40	142.85	168.96	177.50
46 Hosiery	0.51	160.52	181.55	183.58
47 Dopatta	0.44	157.87	186.02	188.47
48 Cleaning & Laundering	0.21	163.04	190.15	192.87



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

Items and specification	Weights	Index		
		Nov-11	Oct-12	Nov-12
49 Tailoring	0.88	176.63	202.23	205.03
50 Footwear	1.55	123.20	142.91	143.18
<b>Housing, Water, Elect, Gas &amp; Other Fuel</b>	<b>29.41</b>	<b>144.03</b>	<b>149.95</b>	<b>150.01</b>
51 House Rent	21.81	131.37	139.61	139.61
52 Construction Input Item	0.56	184.15	201.21	202.11
53 Construction Wage Rate	0.33	151.37	170.75	171.19
54 Water Supply	0.50	128.32	133.23	133.23
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	228.18	274.09	275.18
58 Fire Wood Whole	0.23	194.34	228.19	233.33
<b>Furnished H.Hold Equip. &amp; Maint. Etc</b>	<b>4.21</b>	<b>157.52</b>	<b>176.84</b>	<b>178.63</b>
59 Furniture	0.33	149.28	167.17	168.01
60 Household Textile	0.65	153.13	173.23	175.00
61 Household Equipment	0.59	148.25	156.81	157.13
62 Utensils	0.32	147.06	174.91	176.06
63 Plastic Products	0.25	163.36	174.34	175.06
64 Washing Soap & Detergent	0.79	173.59	191.20	194.15
65 Sewing Needle & Dry Cell	0.15	136.48	150.69	151.54
66 Household Servant	1.04	160.08	186.45	189.23
67 Marriage Hall Charges	0.08	167.43	193.11	193.11
<b>Health</b>	<b>2.19</b>	<b>135.85</b>	<b>155.13</b>	<b>156.08</b>
68 Drug Medicine	1.27	124.15	137.39	138.28
69 Medical Equipment	0.01	171.14	195.91	196.91
70 Doctor (MBBS) Clinic Fee	0.59	158.46	192.89	193.76
71 Medical Test	0.32	139.52	154.65	156.00
<b>Transport</b>	<b>7.20</b>	<b>165.16</b>	<b>191.22</b>	<b>180.75</b>
72 Motor Vehicle	0.66	140.39	152.25	152.84
73 Motor Vehicle Accessories	0.24	185.04	205.45	206.89
74 Motor Fuel	3.03	160.84	193.27	172.69
75 Mechanical Service	0.46	154.55	181.25	182.81
76 Motor Vehicle Tax	0.11	119.48	152.02	152.02
77 Transport Services	2.70	177.93	200.46	195.09
<b>Communication</b>	<b>3.22</b>	<b>123.19</b>	<b>123.68</b>	<b>123.75</b>
78 Postal Services	0.07	164.71	172.89	173.27
79 Communication & Apparatus	3.15	122.32	122.65	122.71
<b>Recreation &amp; Culture</b>	<b>2.02</b>	<b>140.74</b>	<b>165.94</b>	<b>166.19</b>
80 Recreation & Culture	0.86	115.32	121.85	122.25
81 Text Books	0.57	164.45	230.23	230.22
82 News Papers	0.19	149.97	155.91	155.91
83 Stationery	0.40	157.52	174.36	174.73
<b>Education</b>	<b>3.94</b>	<b>140.91</b>	<b>154.47</b>	<b>154.78</b>
84 Education	3.94	140.91	154.47	154.78
<b>Restaurants And Hotels</b>	<b>1.23</b>	<b>182.32</b>	<b>200.30</b>	<b>201.11</b>
85 Ready Made Food	1.23	182.32	200.30	201.11
<b>Miscellaneous Goods And Services</b>	<b>2.76</b>	<b>179.71</b>	<b>198.94</b>	<b>200.34</b>
86 Personal Care	1.49	162.39	178.18	179.17
87 Cosmetics	0.39	138.81	148.93	149.54
88 Blades	0.03	158.20	171.51	172.39
89 Personal Equipments	0.84	229.83	259.57	262.07

<b>Table A11: Wholesale Price Index Numbers by Major Groups and Composite Commodities</b>			
<b>Items and Specifications</b>	<b>Index</b>		
	<b>Nov-11</b>	<b>Oct-12</b>	<b>Nov-12</b>
<b>General</b>	<b>178.39</b>	<b>192.88</b>	<b>192.18</b>
<b>Agriculture Forestry &amp; Fishery</b>	<b>184.98</b>	<b>194.13</b>	<b>189.19</b>
1 Wheat	162.51	177.61	181.31
2 Maize	151.51	167.05	161.45
3 Rice	151.90	163.86	163.85
4 Sorghum/Jowar	177.59	184.26	188.66
5 Millet/Bajra	147.59	194.58	156.89
6 Vegetables	282.06	269.17	223.38
7 Fresh Fruits	112.52	183.93	130.42
8 Dry Fruits	188.14	173.49	175.06
9 Cotton Seeds	196.11	170.28	170.85
10 Other Oil Seeds	169.50	183.21	183.21
11 Edible Roots/ Potatoes	217.20	196.16	188.12
12 Stimulant And Spice Crops	200.38	204.46	178.82
13 Pulses	207.67	213.03	211.21
14 Sugar Crops	291.82	267.92	267.92
15 Fibre Crops	194.74	176.84	177.87
16 Unmanufactured Tobacco	167.91	168.99	169.08
17 Poultry	163.25	143.42	153.87
18 Milk From Bovine Animals	188.73	213.76	213.76
19 Eggs	185.18	217.03	233.24
20 Raw Animal Material/Wool	130.85	136.65	137.58
21 Hides And Fur Skins, Raw	130.50	137.17	138.71
22 Fuel Wood In Logs	185.80	205.02	208.63
23 Fishes Live Fresh Or Chilled	140.23	176.68	176.27
<b>Ores/Minerals, Gas &amp; Elect.</b>	<b>170.09</b>	<b>207.79</b>	<b>208.05</b>
24 Coal Not Agglomerated	125.49	196.08	196.08
25 Natural Gas Liquefied	179.87	192.25	192.78
26 Salt & Pure Sodium Chloride	153.67	164.54	164.54
27 Electrical Energy	166.13	226.10	226.10
<b>Food, Beverages, Tobacco, Textiles</b>	<b>175.63</b>	<b>185.83</b>	<b>187.56</b>
28 Meat Of Animals	213.36	227.09	227.09
29 Vegetables & Fruit Juices	176.10	185.05	187.55
30 Dried Fruits & Nuts	199.99	212.04	221.39
31 Fruit Juices	156.09	157.15	157.66
32 Vegetable Oil Refined	151.99	155.32	154.80
33 Vegetable Ghee	139.88	141.43	139.91
34 Oil Cakes	158.08	172.81	175.06
35 Processed Liquid Milk	180.23	208.43	208.43
36 Milk And Cream In Solid Form	165.95	170.79	171.16
37 Ice Cream	154.15	167.68	167.68
38 Dairy Products N.E.C	176.66	202.69	204.91
39 Wheat Flour	151.63	164.13	166.05
40 Other Cereal Flour	144.91	208.22	203.99
41 Sugar Refined	247.60	204.34	205.06
42 Chocolate	100.00	99.19	99.19
43 Sugar Confectionary	100.40	100.40	100.40
44 Coffee And Tea	188.78	192.33	198.68
45 Spices	276.42	304.68	303.12
46 Other Food Products	305.83	323.46	323.46
47 Mineral Water	162.93	168.29	168.32
48 Beverages	132.43	137.86	137.86
49 Tobacco Products	170.46	208.80	208.80
50 Cotton Yarn	192.84	200.08	207.49
51 Nylon Yarn	196.85	176.45	177.24
52 Blended Yarn	200.48	190.06	188.63
53 Woven Fabrics	162.80	196.74	196.74
54 Cotton Fabrics	164.49	173.68	174.17
55 Other Fabrics	151.58	165.62	165.62

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

Items and Specifications		Index		
		Nov-11	Oct-12	Nov-12
56	Silk And Rayon Fabrics	138.37	151.23	154.01
57	Towels	178.07	200.68	203.06
58	Blankets	146.17	172.59	178.52
59	Bed Sheets	160.30	197.94	197.94
60	Quilts	142.42	147.05	149.37
61	Woolen Carpets	105.95	106.55	106.55
62	Synthetic Carpets	150.34	113.15	113.15
63	Hosiery Products	150.62	173.15	175.07
64	Ready Made Garments	125.59	135.15	135.15
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	128.50
<b>Other Transportable Goods</b>		<b>189.50</b>	<b>206.53</b>	<b>206.43</b>
68	Timber	135.95	148.07	148.23
69	Printing Paper	118.38	147.96	152.93
70	Hard Board	141.67	239.58	239.58
71	Coke	155.28	163.45	163.45
72	Motor Sprit	147.65	174.17	172.08
73	Diesel Oil	225.86	268.79	265.58
74	Kerosene Oil	228.62	273.51	269.61
75	Furnace Oil	196.81	179.20	172.69
76	Mobil Oil	170.52	182.64	182.64
77	Chemicals	145.01	149.01	153.56
78	Dying Materials	106.14	104.26	104.26
79	Fertilizers	263.77	259.86	266.79
80	Pesticides	164.77	197.49	197.49
81	Insecticides	130.07	117.46	131.43
82	Paints & Varnishes	180.34	237.29	237.48
83	Medicines	113.92	139.44	139.50
84	Soaps & Detergent	148.10	168.39	168.45
85	Auto Tyres	172.02	180.73	180.73
86	Plastic Products	178.54	191.31	191.35
87	Glass Sheets	169.06	190.93	190.93
88	Other Glass Articles	203.99	189.33	191.72
89	Ceramics And Sanitary	132.70	157.32	157.32
90	Bricks Blocks And Tiles	166.88	172.14	172.40
91	Cement	155.21	183.17	187.15
92	Bed Foams	123.67	140.00	140.67
93	Matches	117.72	126.70	133.50
<b>Metal Product Machinery &amp; Equip</b>		<b>151.66</b>	<b>158.67</b>	<b>159.04</b>
94	Pig Iron	128.97	128.97	128.97
95	Steel Bars & Sheets	132.89	135.96	133.72
96	Pipe Fittings	140.22	141.47	141.47
97	Steel Products	150.72	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	163.43	172.67	172.67
101	Cultivators	184.66	184.66	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	162.72	163.68	165.38
107	Electrical Wires	158.89	159.57	159.57
108	Lighting Equipments	142.37	145.21	148.10
109	Radio And Television	131.33	126.46	126.46
110	Motor Vehicles	154.47	167.70	167.70
111	Motor Cycles	121.72	125.19	125.19
112	Bicycles	164.21	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	Jan	129.64	138.54	124.31	136.97	138.94	135.72	141.97
	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	192.18	193.02	191.65	187.35

\*: all groups combined

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

	Aug-12	Sep-12	Oct-12	Nov-12
<b>Energy</b>				
Crude Oil (US\$ per barrel) *	105.3	106.3	103.4	101.2
IMF Energy Index (2005 = 100)	194.8	196.5	191.6	188.4
WB Energy Index (2005 = 100) @	187.3	188.5	183.9	180.9
<b>Food</b>				
Rice (\$/MT)	582.9	590.5	584.7	590.7
Wheat (\$/MT)	349.4	353.4	358.2	361.0
Sugar (US cent/ pound)	20.6	20.2	20.4	19.3
Palm Oil (\$/MT)	930.6	879.5	768.1	743.1
Soybean Oil (\$/MT)	1,188.5	1,213.3	1,119.9	1,071.8
<b>Non-Food Non-Energy</b>				
Cotton Outlook 'A' Index #	84.4	84.2	82.0	80.9
IMF Metal Price Index (2005 = 100)	172.5	179.9	183.4	182.1
Copper (\$/MT)	7,510.4	8,087.7	8,062.0	7,711.2
Aluminum (\$/MT)	1,843.3	2,064.1	1,974.3	1,948.8
Iron Ore (\$ cents/dry MT)	107.8	99.5	114.0	120.4
Tin (\$/MT)	18,675.6	20,771.3	21,233.7	20,713.1
Nickle (\$/MT)	15,704.0	17,288.0	17,168.7	16,335.4
Zinc (\$/MT)	1,816.3	2,009.9	1,904.0	1,912.4
Lead (\$/MT)	1,897.8	2,177.7	2,142.0	2,182.0
Uranium (\$/MT)	49.3	47.7	44.6	41.5
DAP (\$/MT)	559.0	573.0	573.0	524.8
Urea (\$/MT)	374.9	384.5	396.0	374.2

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

<b>Table 14. CPI Data Series Original and Seasonally Adjusted</b>				
<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	
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	122.19	137.31	154.36	169.20
Aug	123.93	139.80	155.95	170.10
Sep	124.03	142.39	157.29	171.15
Oct	124.70	143.70	159.39	171.54
Nov	126.64	145.49	160.29	171.38
Dec	127.06	146.70	160.97	
Jan	129.88	147.95	162.90	
Feb	131.13	148.08	164.49	
Mar	132.57	149.86	165.98	
Apr	134.23	150.98	167.91	
May	134.73	151.88	170.59	
Jun	135.44	153.57	170.90	

**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	
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	130.45	148.70	174.06	189.94
Aug	133.26	154.84	175.26	190.31
Sep	132.96	161.10	176.98	190.40
Oct	133.61	160.90	179.60	189.88
Nov	136.78	163.96	180.29	189.80
Dec	137.06	165.14	180.69	
Jan	138.97	167.07	182.54	
Feb	141.52	166.58	184.12	
Mar	143.50	169.15	185.55	
Apr	145.87	169.76	187.88	
May	146.89	170.41	189.73	
Jun	148.64	172.44	190.34	

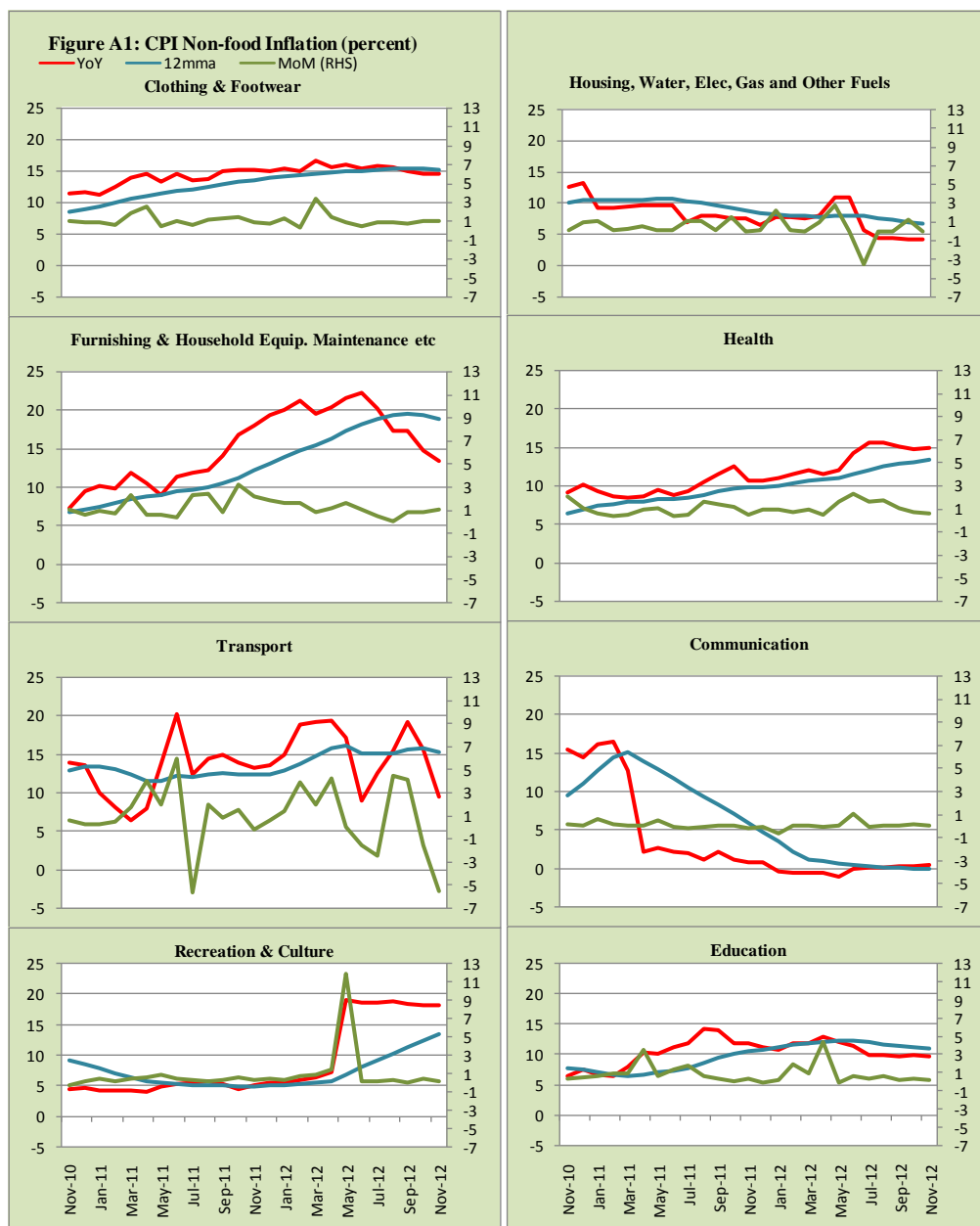
<b>Table 16: CPI Monthly &amp; Average Seasonal Factors</b>					
<b>Period</b>	<b>FY10</b>	<b>FY11</b>	<b>FY12</b>	<b>FY13</b>	<b>Average</b>
Jul	100.16	100.13	100.13	100.13	100.1
Aug	100.58	100.59	100.59	100.58	100.6
Sep	100.63	100.68	100.71	100.74	100.7
Oct	100.94	100.97	101.00	101.01	101.0
Nov	100.49	100.51	100.52	100.55	100.5
Dec	99.36	99.35	99.33		99.3
Jan	99.80	99.80	99.79		99.8
Feb	99.36	99.32	99.28		99.3
Mar	99.42	99.40	99.39		99.4
Apr	99.97	99.99	100.02		100.0
May	99.66	99.64	99.61		99.6
Jun	99.60	99.61	99.62		99.6

<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	100.40	100.42	100.43	100.41	100.4
Aug	101.27	101.20	101.18	101.13	101.2
Sep	101.68	101.78	101.80	101.78	101.8
Oct	101.77	101.87	101.93	101.99	101.9
Nov	101.53	101.61	101.65	101.71	101.6
Dec	99.09	99.12	99.18		99.1
Jan	99.69	99.67	99.65		99.7
Feb	98.26	98.19	98.14		98.2
Mar	98.75	98.79	98.88		98.8
Apr	99.57	99.70	99.76		99.7
May	99.18	99.04	98.96		99.1
Jun	98.65	98.51	98.43		98.5



<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	
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		1.38	0.52	-1.00
Aug	1.43	1.82	1.03	0.54
Sep	0.07	1.86	0.86	0.62
Oct	0.54	0.92	1.33	0.23
Nov	1.56	1.24	0.57	-0.10
Dec	0.33	0.84	0.43	
Jan	2.22	0.85	1.20	
Feb	0.96	0.09	0.97	
Mar	1.10	1.20	0.91	
Apr	1.25	0.74	1.16	
May	0.37	0.60	1.59	
Jun	0.53	1.11	0.19	

<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	
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		0.04	0.94	-0.21
Aug	2.15	4.13	0.69	0.20
Sep	-0.22	4.04	0.98	0.05
Oct	0.49	-0.13	1.48	-0.27
Nov	2.37	1.90	0.39	-0.05
Dec	0.21	0.72	0.22	
Jan	1.39	1.17	1.02	
Feb	1.83	-0.29	0.87	
Mar	1.40	1.54	0.78	
Apr	1.65	0.37	1.26	
May	0.70	0.38	0.99	
Jun	1.19	1.19	0.32	



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

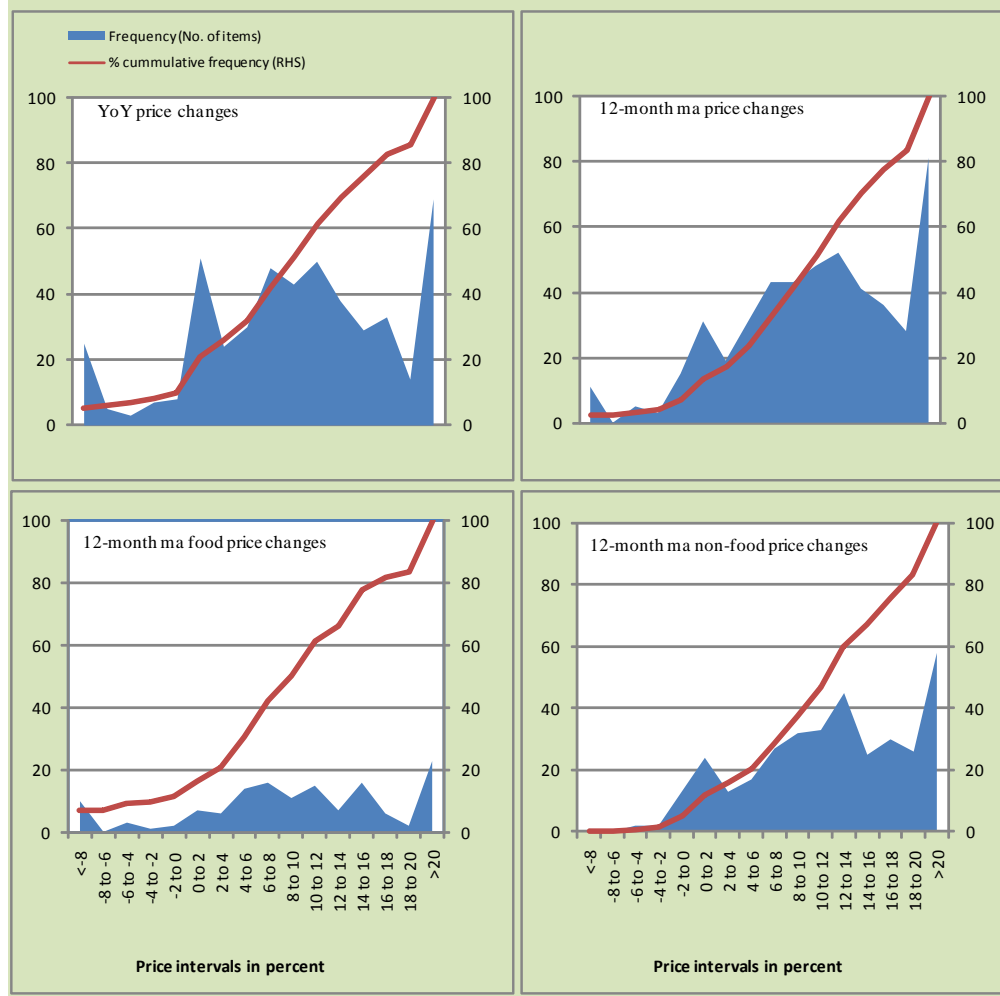
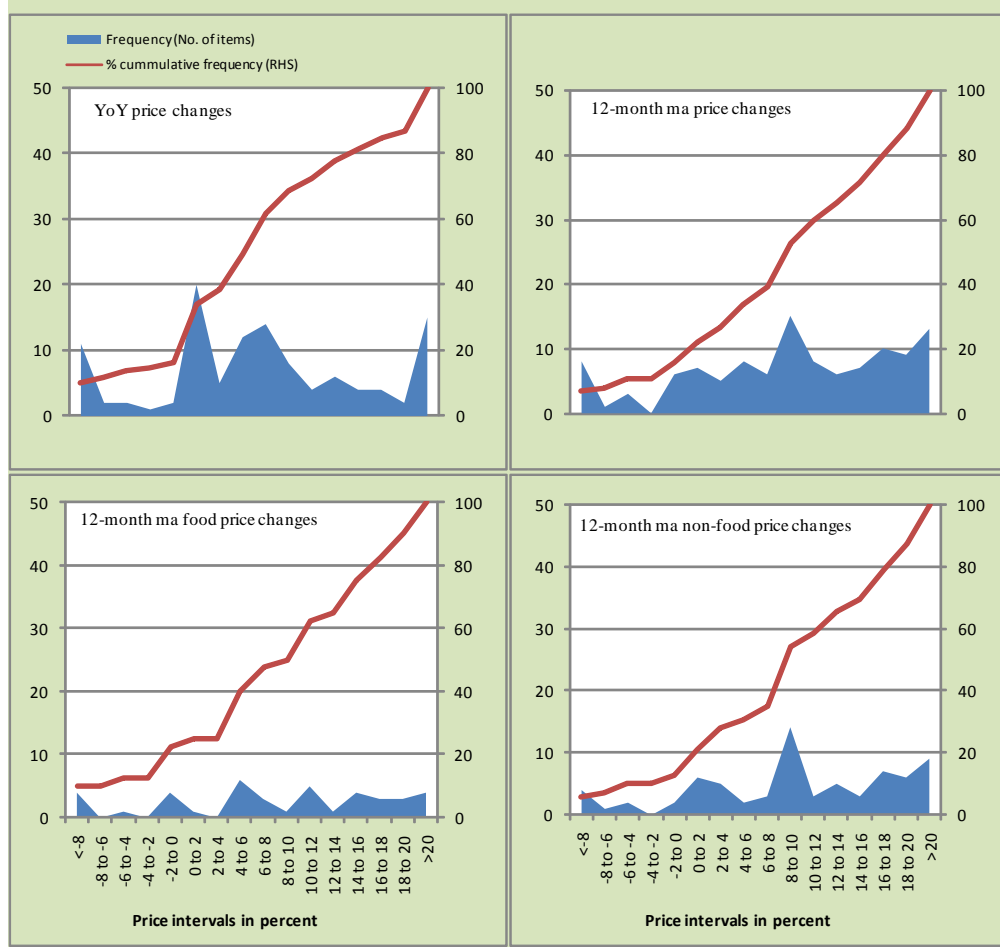
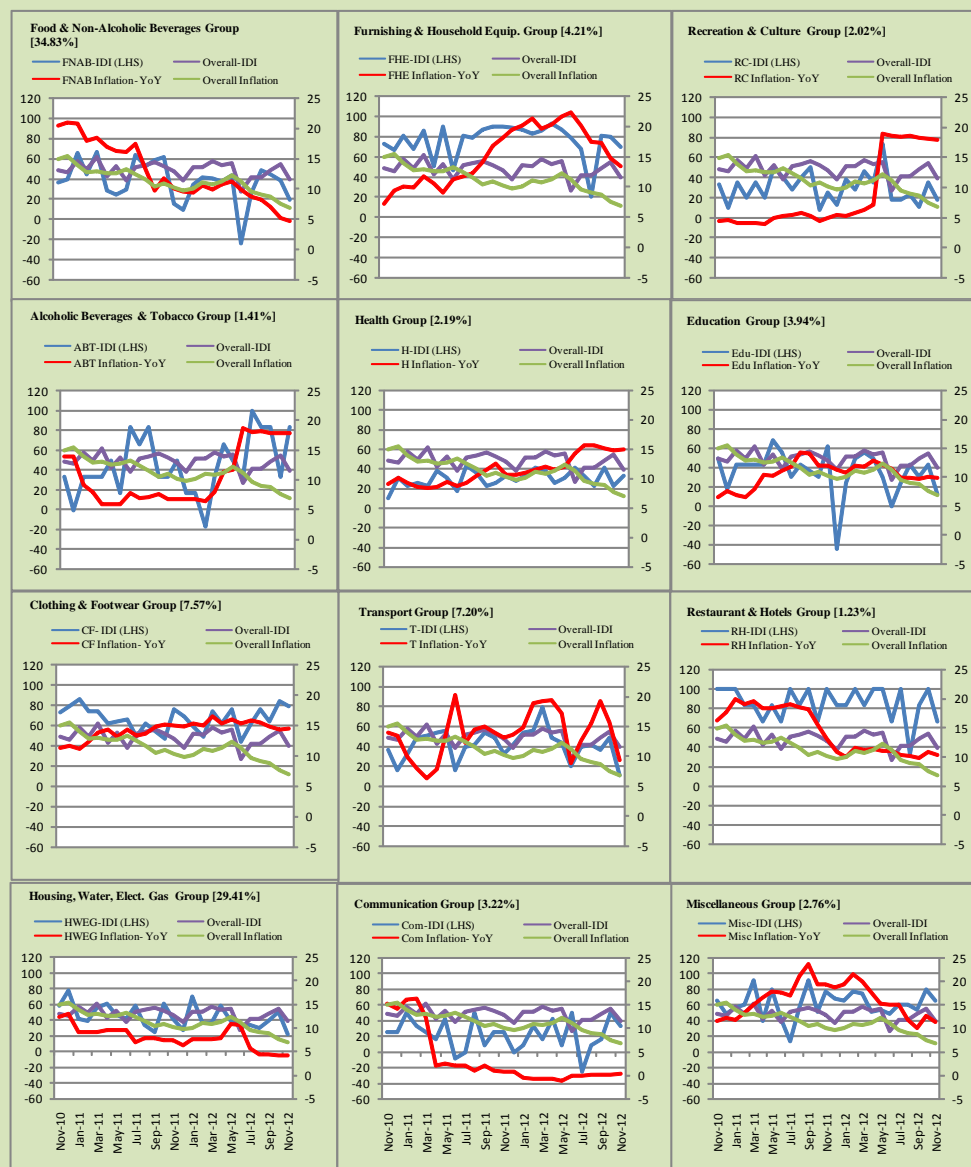


Figure A3: Frequency Distribution of Price Changes of WPI Commodities, November 2012



## Inflation Monitor, November 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.