

# **Inflation Monitor**

**August 2011**



**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 Federal Bureau of Statistics, Pakistan 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)

	<b>Contents</b>	<b>Page</b>
1.	Inflation in Brief	1
2.	City- wise Inflation	6
3.	Income Group- wise Inflation	7
4.	Weighted Contribution	9
5.	Inflation Diffusion Index	10
6.	Domestic Commodity Prices	11
7.	Global Commodity Prices	11
8.	Seasonal Adjustment in CPI Index	12
Annexure A		15
Table A1:	CPI Inflation (YoY) by Groups	
Table A2:	Distribution of Price Changes (YoY) of CPI Basket	
Table A3:	Top Ten Contributors to CPI Inflation (YoY)	
Table A4:	Distribution of Price Changes (YoY) - Selected CPI Items	
Table A5:	City-wise CPI Inflation (YoY) by Income Groups	
Table A6:	City- wise CPI Inflation (YoY)	
Table A7:	Income Group-wise Inflation	
Table A8:	SPI Item-wise Price Movements	
Table A9:	Distribution of Price Change (YoY)-WPI Items	
Table A10:	Consumer Price Index Numbers by Major Groups and Selected Commodities	
Table A11:	Wholesale Price Index Numbers by Major Groups and Selected Commodities	
Table A12:	Price Indices	
Table A13:	International Commodity Prices/ Indices	
Table A14:	CPI Data Series- Original and Seasonally Adjusted	
Table A15:	CPI Index- Seasonal Factors	
Table A16:	CPI Index MoM% Change- Original and Seasonally Adjusted Series	
Figure A1	CPI Non-food Inflation	
Figure A2	Frequency Distribution of Price Changes of CPI Items	
Figure A3	Frequency Distribution of Price Changes of WPI Items	
Figure A4	Group- wise Inflation Diffusion Index and Respective Overall YoY Inflation	
Annexure B	Technical Notes	35

## **The Team**

- |                             |  |
|-----------------------------|--|
| • Behzad Ali Ahmad          | Sr. Joint Director<br><a href="mailto:Behzad.ali@sbp.org.pk">Behzad.ali@sbp.org.pk</a>               |
| • Dr. S. M. Husnain Bokhari | Sr. Joint Director<br><a href="mailto:Husnain.bokhari@sbp.org.pk">Husnain.bokhari@sbp.org.pk</a>     |
| • Syed Kamran Najam         | Joint Director<br><a href="mailto:Kamran.najam@sbp.org.pk">Kamran.najam@sbp.org.pk</a>               |
| • Mr. Muhammad Ashfaq       | Assistant Director<br><a href="mailto:muhammad.ashfaqch@sbp.org.pk">muhammad.ashfaqch@sbp.org.pk</a> |
| • Syed Salman Bukhari       | Assistant Director<br><a href="mailto:Salman.bukhari@sbp.org.pk">Salman.bukhari@sbp.org.pk</a>       |

## **Review**

### **Inflation in Brief**

1. Headline CPI inflation on revised base (2007-08 = 100) is recorded at 11.6 percent on year-on-year basis in August 2011 as compared to 12.4 percent in the previous month and 12.8 percent in the corresponding month of last year.
2. CPI inflation on month-on-month basis increased to 1.4 percent in August 2011 as compared to 1.3 percent in the previous month and 2.2 percent in August 2010. Seasonally adjusted month-on-month CPI inflation, however, comes to 0.9 percent in August 2011 as compared to 0.5 percent in previous month.
3. Core inflation measured by 20% weighted trimmed mean CPI (Core Trim) increased to 12.4 percent in August 2011 (YoY) as compared to 11.9 percent in July 2011 and the 11.1 percent in August 2010.
4. Core Trim inflation was 0.7 percent on month-on-month basis in August 2011 as compared with 1.1 percent in July 2011 and 0.5 percent in August 2010.
5. Core inflation measured by non-food non-energy CPI (Core NFNE) was recorded at 10.1 percent in August 2011 (YoY) as compared with 9.6 percent a month earlier and 8.4 percent in August 2010.
6. Core NFNE inflation on month-on-month basis decreased to 0.8 percent in August 2011 as compared to 1.2 percent a month earlier. Core NFNE was 0.3 percent in August 2010.
7. WPI inflation on year-on-year basis decreased to 18.7 percent in August 2011 compared with 20.3 percent a month earlier. During August 2010, WPI inflation was recorded at 17.5%.

8. WPI inflation on month-on-month basis increased to 0.6 percent in August 2011, in contrast to a negative WPI inflation of 0.4 percent a month earlier which was 1.9 percent in August 2010.
9. SPI inflation on year-on-year basis decreased to 11.9 percent in August 2011 compared with 12.7 percent a month earlier and 17.0 percent in August 2010.
10. SPI inflation month-on-month basis, 1.4 percent was also lower in August 2011 compared with 2.0 percent a month earlier and 2.2 percent in August 2010.

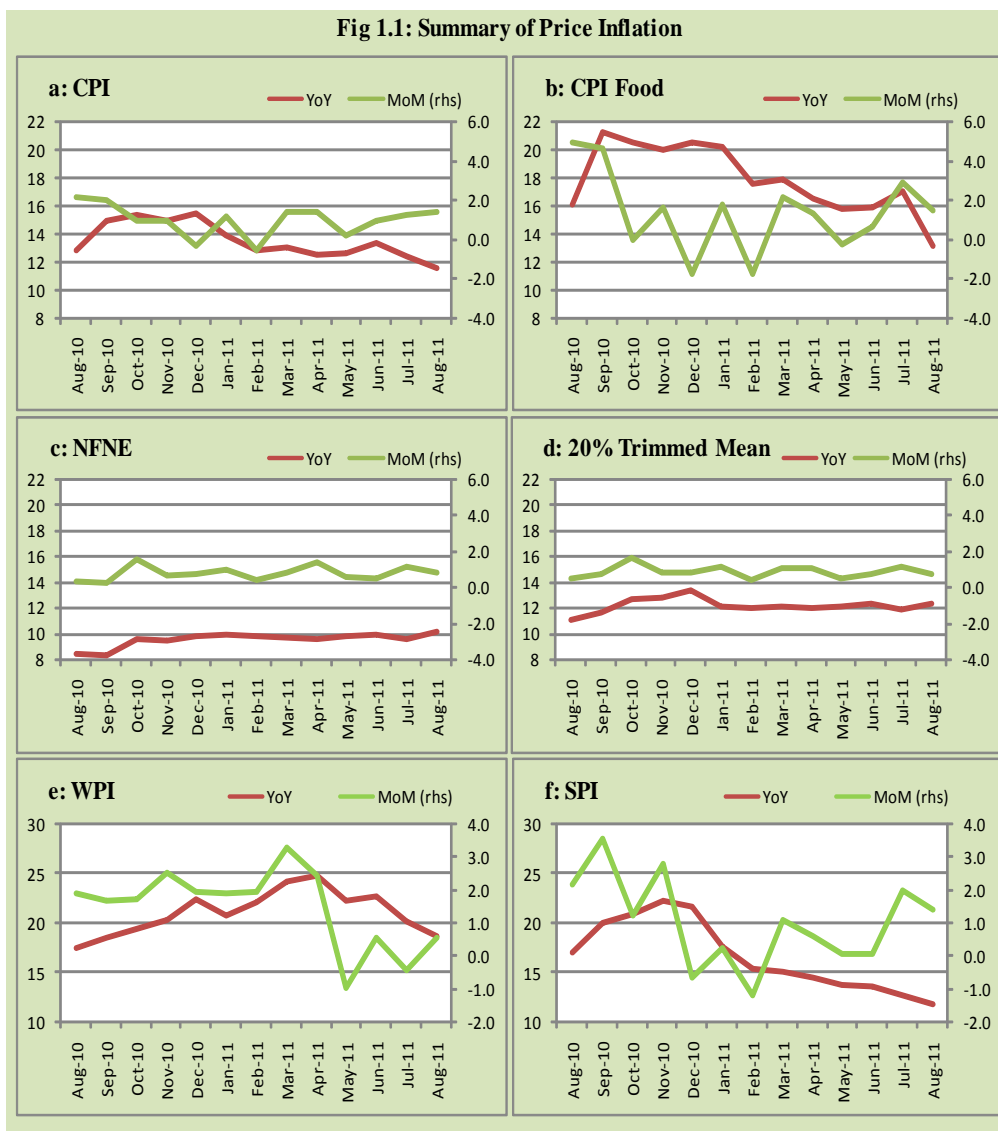
**Table 1.1 Inflation Trends (percent) (Base 2007- 08 = 100)**

Period	CPI						Core Inflation				WPI		SPI**	
	General		Food		Non-food		NFNE*		Trimmed					
	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM
Aug-10	12.8	2.2	16.1	4.9	10.5	0.3	8.4	0.3	11.1	0.5	17.5	1.9	17.0	2.2
Sep-10	14.9	2.0	21.3	4.6	10.5	0.2	8.3	0.2	11.7	0.7	18.6	1.7	20.1	3.6
Oct-10	15.3	1.0	20.5	0.0	11.8	1.7	9.5	1.6	12.7	1.6	19.5	1.7	20.9	1.2
Nov-10	15.0	1.0	20.0	1.6	11.5	0.5	9.4	0.6	12.8	0.8	20.3	2.5	22.3	2.8
Dec-10	15.5	-0.3	20.5	-1.7	12.0	0.8	9.8	0.7	13.4	0.8	22.5	2.0	21.6	-0.6
Jan-11	13.9	1.2	20.2	1.7	9.7	0.8	9.9	1.0	12.1	1.1	20.9	1.9	17.6	0.3
Feb-11	12.8	-0.6	17.6	-1.8	9.7	0.3	9.7	0.4	12.0	0.4	22.1	2.0	15.4	-1.2
Mar-11	13.0	1.4	17.9	2.2	9.7	0.9	9.7	0.8	12.1	1.0	24.3	3.3	15.1	1.1
Apr-11	12.5	1.4	16.5	1.3	9.8	1.5	9.5	1.4	12.0	1.0	24.9	2.4	14.5	0.6
May-11	12.6	0.2	15.8	-0.3	10.5	0.6	9.8	0.5	12.1	0.5	22.3	-1.0	13.8	0.1
Jun-11	13.3	1.0	15.9	0.7	11.6	1.2	9.9	0.5	12.4	0.7	22.8	0.6	13.7	0.1
Jul-11	12.4	1.3	17.1	2.9	9.3	0.1	9.6	1.2	11.9	1.1	20.3	-0.4	12.7	2.0
Aug-11	11.6	1.4	13.2	1.4	10.4	1.4	10.1	0.8	12.4	0.7	18.7	0.6	11.9	1.4

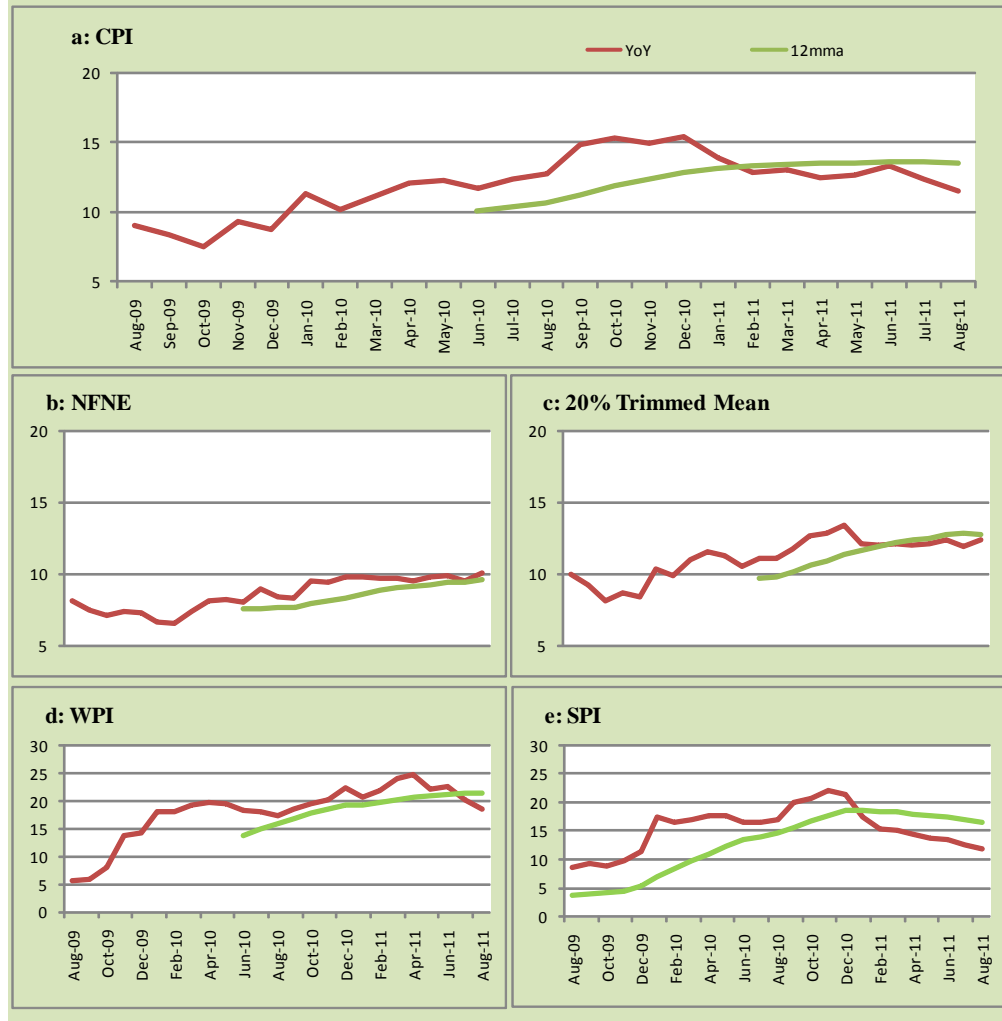
\* NFNE is Non-food non-energy

\*\* SPI for all income groups combined

Fig 1.1: Summary of Price Inflation

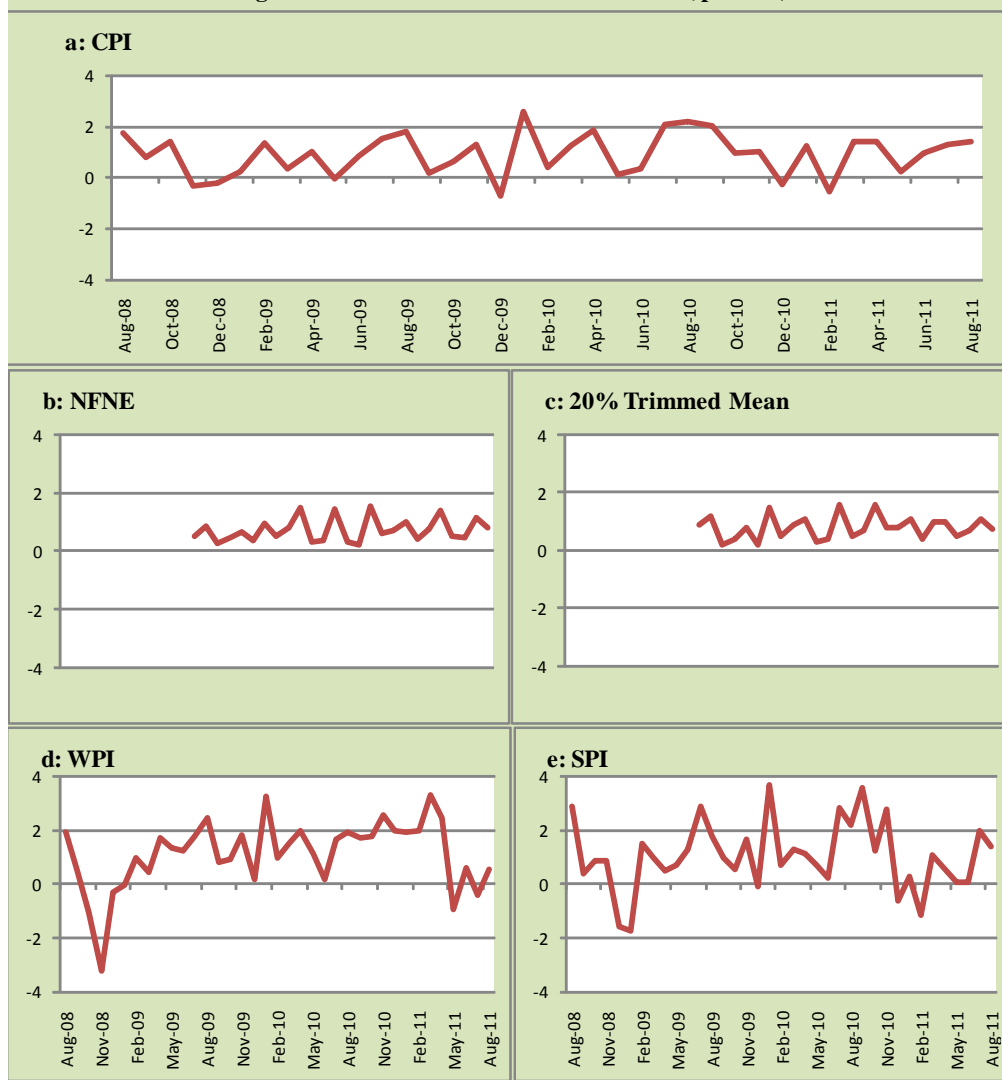


**Fig 1.2: Movements in Price Indices (percent)**

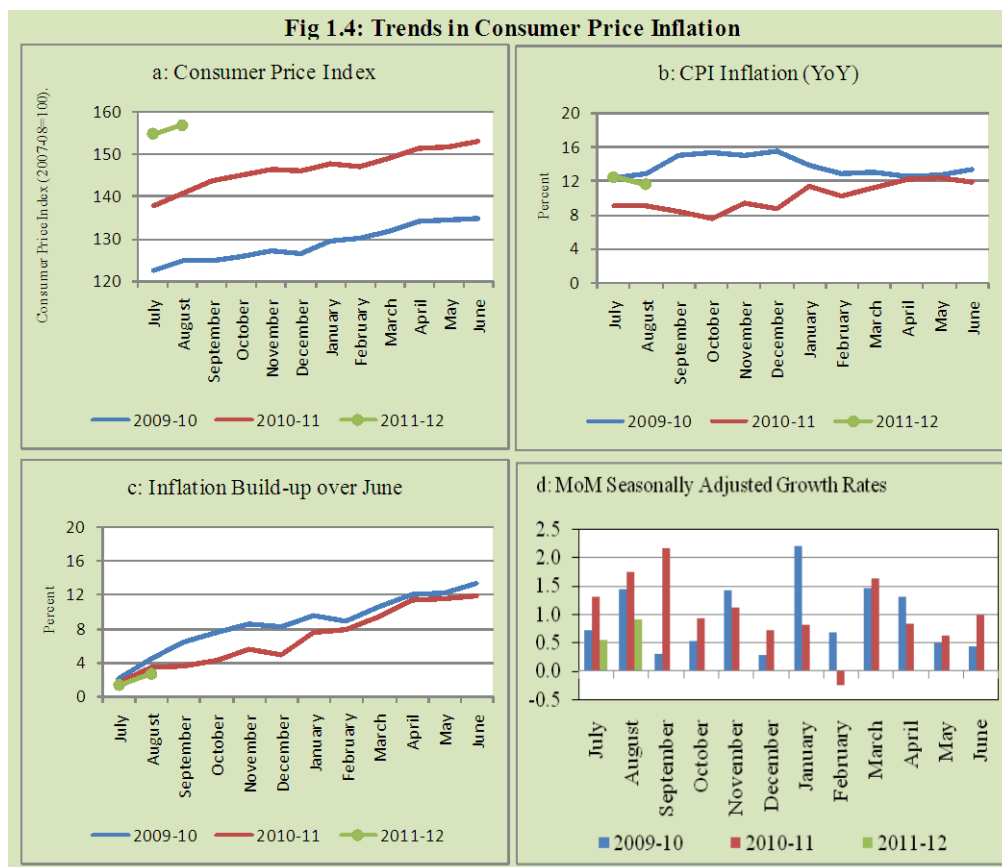




**Fig 1.3: Movements in Price Indices -MoM ( percent)**



**Fig 1.4: Trends in Consumer Price Inflation**



## 2. City wise Inflation

Inflation in major cities of Pakistan showed mixed trend. The inflation in Karachi, Lahore and Peshawar was lower than the overall inflation while inflation in the federal capital and Quetta was higher in August 2011. Among these five cities, the highest inflation was observed in Islamabad (Table A6).

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

	Aug-10		Jul-11		Aug-11	
	MoM	YoY	MoM	YoY	MoM	YoY
<b>Overall CPI</b>	2.2	12.8	1.3	12.4	1.4	11.6
Islamabad	2.1	10.9	1.8	13.2	1.2	12.2
Karachi	1.7	13.0	1.8	11.0	1.5	10.7
Lahore	1.5	9.8	2.0	9.6	1.0	9.0
Peshawar	2.8	12.7	1.9	12.5	0.9	10.4
Quetta	3.1	12.7	1.4	13.7	1.6	12.0

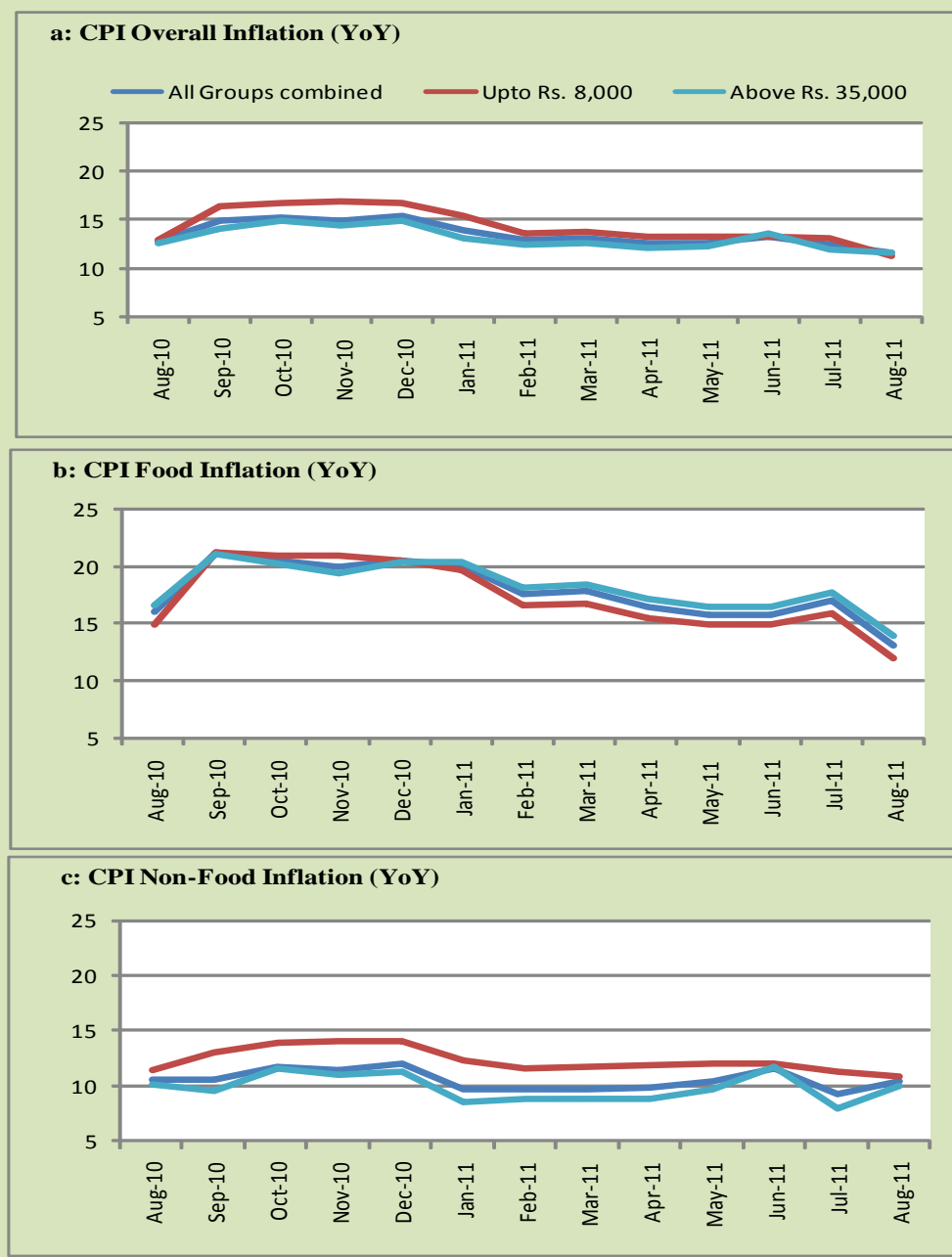
### 3. Income Group wise Inflation

Income group- wise data showed that income group above Rs. 35,000 has slightly higher inflation than the overall inflation in CPI basket in August 2011 for general group and has highest inflation in food group. The lowest income groups (Up to Rs. 8, 000 and Rs. 8, 0001-12,000) have the highest non-food inflation which is 10.8 percent in August 2011 as compared to 10.4 percent of combined groups (Table A7).

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

Income Groups	General			Food			Non-food		
	Aug-10	Jul-11	Aug-11	Aug-10	Jul-11	Aug-11	Aug-10	Jul-11	Aug-11
<b>All Groups combined</b>	<b>12.8</b>	<b>12.4</b>	<b>11.6</b>	<b>16.1</b>	<b>17.1</b>	<b>13.2</b>	<b>10.5</b>	<b>9.3</b>	<b>10.4</b>
Up to Rs. 8,000	12.9	13.2	11.3	15.0	15.9	12.0	11.4	11.3	10.8
Rs. 8,001- 12,000	13.1	13.1	11.5	15.5	16.4	12.5	11.4	10.9	10.8
Rs. 12,001- 18,000	12.0	13.1	11.5	15.9	16.6	12.8	9.3	10.6	10.6
Rs. 18,001- 35,000	14.0	12.5	11.4	16.3	17.0	13.0	12.4	9.5	10.3
Above Rs. 35,000	12.7	11.9	11.6	16.5	17.8	13.9	10.1	7.9	10.0

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



#### 4. Weighted Contribution

The weighted contribution of food group decreased to 47.56 percent during August 2011 from 55.81 percent in July 2011 and 51.10 percent in August 2010.

The weighted contribution of non-food group showed increase to 52.44 percent in August 2011 from 44.19 percent in July 2011.

Table 4.1 Weighted Contribution to CPI Inflation (YoY)						
Period	Food	Clothing & Footwear	Housing, Water, Elect, Gas & Other Fuel	Transport	Education	Others
Aug-10	51.10	5.46	24.80	6.58	1.38	10.67
Sep-10	57.95	4.55	21.25	6.10	1.32	8.82
Oct-10	54.33	4.82	23.40	7.45	0.86	9.15
Nov-10	54.57	5.24	22.97	6.76	1.60	8.87
Dec-10	53.50	5.30	23.66	6.41	1.81	9.32
Jan-11	58.16	5.58	18.91	5.27	1.78	10.30
Feb-11	54.92	6.78	20.37	4.70	1.88	11.34
Mar-11	55.44	7.17	19.99	3.76	2.21	11.43
Apr-11	53.46	7.93	21.27	4.85	2.98	9.51
May-11	50.91	7.31	21.02	8.14	2.92	9.71
Jun-11	48.53	7.57	19.80	11.33	3.02	9.76
Jul-11	55.81	7.49	15.60	7.29	3.41	10.39
Aug-11	47.56	8.12	18.86	9.01	4.24	12.21

## 5. Inflation Diffusion Index

Table 5.1 Inflation Diffusion Index - based on MoM change													
	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Jul-11	Aug-11
General	30.5	31.2	59.2	48.5	45.9	57.8	49.3	61.7	42.7	52.8	38.2	51.3	53.4
Food & Non-Alcoholic Beverages	54.8	48.7	55.7	36.4	39.3	64.9	44.2	66.1	27.9	24.3	28.9	63.2	51.7
Alcoholic Beverages & Tobacco	66.7	33.3	33.3	33.3	0.0	33.3	33.3	33.3	50.0	16.7	83.3	66.7	83.3
Clothing & Footwear	32.2	42.4	79.7	72.9	79.7	86.4	74.6	74.6	62.7	64.4	66.1	49.2	62.7
Housing, Water, Elect, Gas & other Fuels	27.8	27.8	69.4	58.3	77.8	41.7	38.9	55.6	61.1	47.2	41.7	58.3	33.3
Furnishing & Household Equip. Maintenance etc	43.5	21.7	75.4	72.5	66.7	81.2	68.1	85.5	50.7	89.9	46.4	81.2	78.3
Health	5.1	23.1	41.0	10.3	30.8	23.1	25.6	23.1	38.5	30.8	17.9	43.6	35.9
Transport	18.6	20.9	46.5	37.2	16.3	32.6	48.8	51.2	53.5	55.8	16.3	39.5	41.9
Communication	8.3	-8.3	50.0	25.0	25.0	50.0	33.3	25.0	16.7	41.7	-8.3	0.0	50.0
Recreation & Culture	12.8	7.7	28.2	33.3	10.3	35.9	20.5	35.9	20.5	51.3	41.0	28.2	41.0
Education	-37.5	6.3	50.0	50.0	18.8	43.8	43.8	43.8	43.8	68.8	56.3	31.3	43.8
Restaurant & Hotels	66.7	66.7	66.7	100	100	100	83.3	83.3	66.7	83.3	66.7	100	83.3
Miscellaneous	14.3	42.9	74.3	65.7	48.6	57.1	60.0	91.4	40.0	80.0	42.9	14.3	57.1
NFNE	21.3	26.0	59.5	53.3	47.6	56.5	52.4	60.1	47.3	63.3	40.8	48.2	53.8

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**

	Item	Unit	Aug-10		Jul-11		Aug-11	
			YoY	MoM	YoY	MoM	YoY	MoM
1	Wheat	10 Kg.	-4.19	0.86	4.98	2.52	4.60	0.50
2	Wheat Flour Bag	10 Kg.	-7.55	-3.76	7.43	2.42	10.80	-0.75
3	Rice Basmati Sup. Qlty.	Kg.	1.88	1.45	13.42	1.87	13.01	1.09
4	Pulse Masoor (Washed)	Kg.	-2.41	-0.48	-7.50	-0.68	-7.48	-0.46
5	Pulse Moong (Washed)	Kg.	115.60	6.08	24.47	0.61	16.89	-0.38
6	Pulse Mash (Washed)	Kg.	58.88	2.43	-5.65	-0.57	-9.24	-1.47
7	Pulse Gram	Kg.	28.65	10.10	18.30	3.89	8.99	1.44
8	Vegetable Ghee (Loose)	Kg.	16.34	8.65	40.77	-0.52	30.12	0.43
9	Sugar Refined	Kg.	35.49	9.54	5.95	2.24	2.06	5.53
10	Milk Fresh (Unboiled)	Ltr.	16.57	0.52	20.57	1.01	21.34	1.16
11	Curd	Kg.	15.83	0.61	19.81	1.16	21.40	1.95
12	Beef With Bone Av.Qlty.	Kg	22.84	0.45	18.54	0.53	20.76	2.34
13	Mutton Av.Qlty.	Kg	30.52	1.93	23.35	1.13	22.77	1.45
14	Chicken Farm Broiler (Liv	Kg	3.28	3.87	16.21	14.36	18.76	6.15
15	Eggs Farm	Doz	21.43	18.72	25.29	9.53	6.79	1.20
16	Potatoes	Kg	14.68	29.26	17.99	10.56	-10.13	-1.54
17	Onion	Kg	35.48	37.19	-25.12	9.45	-27.90	32.11
18	Tomatoes	Kg	97.30	58.50	11.51	56.72	-43.27	-19.36
19	Ginger	Kg	62.89	9.49	-15.66	-2.72	-23.63	-0.87
20	Garlic	Kg	111.30	13.01	-14.09	-6.50	-29.71	-7.53

## 7. Global Commodity Prices

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

Item/ Group	Aug-10		Jul-11		Aug-11	
	YoY	MoM	YoY	MoM	YoY	MoM
<b>Overall</b>	12.3	3.3	40.8	1.9	30.1	-4.5
Food	12.0	5.3	25.3	-0.6	19.9	0.8
Metals	25.9	11.3	55.9	2.8	34.7	-3.9
Energy	8.7	0.9	43.3	2.6	33.7	-5.9
Agricultural	23.9	7.9	38.8	-0.2	20.6	-6.2
Cotton	40.6	7.4	77.4	-9.5	26.3	-23.6

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

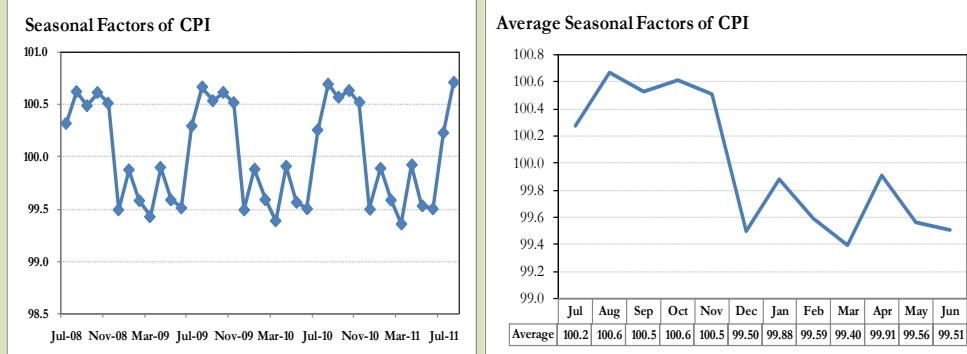
Seasonal adjustment is the process of estimating and removing the seasonal effects from a time series after decomposing it into seasonal, trend, cycle and irregular components. The purpose is to identify the different components of the time series and thus provide a better understanding of its underlying 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 August 2011 has been taken 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 of July to November 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.

**Fig. 8.2 Seasonal Plots of CPI Index**

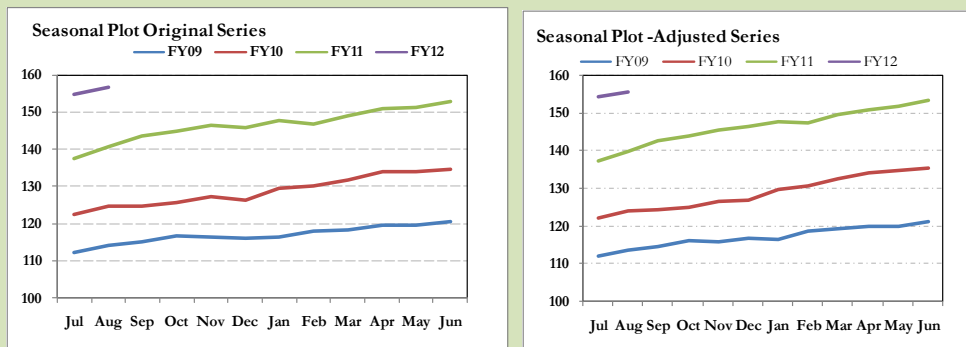


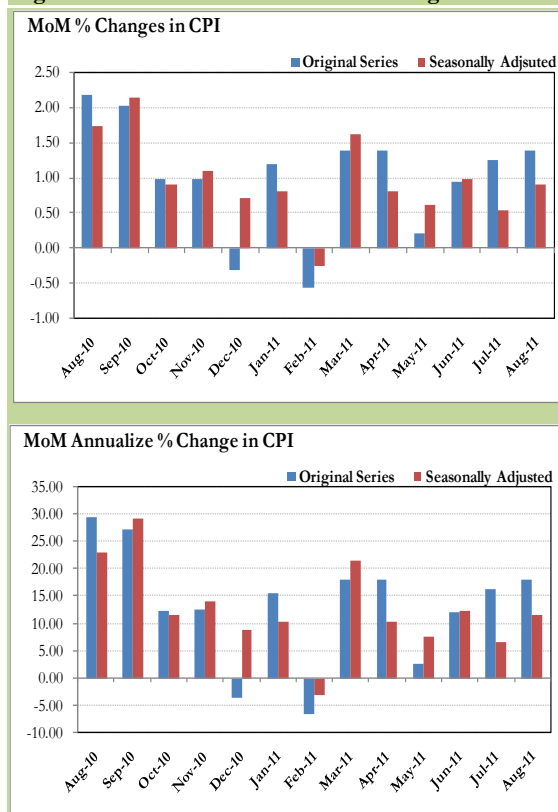
Figure 8.2 shows that seasonally adjusted series are relatively smoother than the original series due to the removal of the seasonal variations. The trend follows the long-term movement in original series, and is smoother than the original series because some irregular fluctuations have been removed.

Seasonally adjusted CPI index for August 2011 stood at 155.8 against 156.9 in Original series showing a decrease of 1.1 on account of adjustment of upward seasonality in August 2011.

Month-on-month change of seasonally adjusted series stood at 0.91% reflecting an increase during August over July 2011 as compared to 1.40% of the 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 August (corresponding to the seasonally adjusted month-on-month rate) is 11.52 percent.

**Fig. 8.3 Month-on-Month Percent Changes in CPI**



**Annexure A**

<b>Table A1: CPI Inflation by Groups (percent)</b>								
	Weights	MoM change			YoY change			
		Aug-10	Jul-11	Aug-11	Aug-10	Jul-11	Aug-11	
<b>I. Food Group</b>	<b>37.5</b>	<b>4.9</b>	<b>2.9</b>	<b>1.4</b>	<b>16.1</b>	<b>17.1</b>	<b>13.2</b>	
Food & Non-Alcoholic Beverages	34.8	5.3	3.0	1.5	16.3	17.4	13.2	
Alcoholic Beverages & Tobacco	1.4	0.1	1.2	0.3	15.3	7.0	7.2	
Restaurant & Hotels	1.2	0.8	1.3	0.3	12.3	19.0	18.5	
<b>II. Non-Food Group</b>	<b>62.5</b>	<b>0.3</b>	<b>0.1</b>	<b>1.4</b>	<b>10.5</b>	<b>9.3</b>	<b>10.4</b>	
Clothing & Footwear	7.6	0.9	0.6	1.2	9.9	13.4	13.7	
Housing, Water, Elect, Gas & other Fuels	29.4	0.2	1.2	1.1	11.4	6.9	7.9	
Furnishing & Household Equip. Maintenance etc	4.2	2.0	2.2	2.4	9.0	11.8	12.2	
Health	2.2	0.6	0.5	1.7	6.4	9.3	10.5	
Transport	7.2	0.0	-5.6	1.9	11.5	12.3	14.4	
Communication	3.2	0.8	-0.2	-0.1	15.3	2.1	1.1	
Recreation & Culture	2.0	-0.2	0.3	0.2	5.6	5.5	5.8	
Education	3.9	-1.5	1.7	0.6	4.8	11.9	14.3	
Miscellaneous	2.8	0.4	0.0	4.1	12.2	17.0	21.3	
<b>Headline</b>	<b>100.0</b>	<b>2.2</b>	<b>1.3</b>	<b>1.4</b>	<b>12.8</b>	<b>12.4</b>	<b>11.6</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)	
		Aug-11	Aug-10	Aug-11	Aug-10	Aug-11	Aug-10	Aug-11	Aug-10	Aug-11	Aug-10
<b>I. Food Group</b>	<b>13.2</b>	<b>128</b>	<b>129</b>	<b>17</b>	<b>18</b>	<b>14</b>	<b>9</b>	<b>16</b>	<b>22</b>	<b>81</b>	<b>80</b>
Food & Non-Alcoholic Beverages	13.2	116	117	17	18	13	8	13	19	73	72
Alcoholic Beverages & Tobacco	7.2	6	6	0	0	0	1	2	3	4	2
Restaurant & Hotels	18.5	6	6	0	0	1	0	1	0	4	6
<b>II. Non-Food Group</b>	<b>10.4</b>	<b>348</b>	<b>348</b>	<b>63</b>	<b>39</b>	<b>66</b>	<b>53</b>	<b>101</b>	<b>72</b>	<b>118</b>	<b>184</b>
Clothing & Footwear	13.7	59	59	5	8	11	2	21	6	22	43
Housing, Water, Elect, Gas & other Fuels	7.9	36	36	4	2	2	4	14	10	16	20
Furnishing & Household Equip. Maintenance etc	12.2	69	69	5	2	10	4	30	19	24	44
Health	10.5	39	39	14	10	10	11	4	5	11	13
Transport	14.4	43	43	13	1	3	7	13	7	14	28
Communication	1.1	12	12	4	3	5	5	0	4	3	0
Recreation & Culture	5.8	39	39	9	9	11	14	6	10	13	6
Education	14.3	16	16	5	2	3	2	4	2	4	10
Miscellaneous	21.3	35	35	4	2	11	4	9	9	11	20
<b>Overall</b>	<b>11.6</b>	<b>476</b>	<b>477</b>	<b>80</b>	<b>57</b>	<b>80</b>	<b>62</b>	<b>117</b>	<b>94</b>	<b>199</b>	<b>264</b>

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

Table A3: Top Ten Contributors to CPI Inflation (YoY) in August 2011					
Items/ Contributors		Weights	YoY Change		Weighted Contribution
			Aug-10	Aug-11	
A. Ranked by Weighted contribution					
1	Milk Fresh	6.68	16.29	21.33	14.42
2	House Rent	21.81	6.42	7.51	12.70
3	Motor Fuel	3.03	8.28	22.47	6.12
4	Meat	2.43	25.25	21.42	5.60
5	Vegetable Ghee	2.07	11.59	31.41	5.04
6	Education	3.94	4.80	14.30	4.56
7	Cooking Oil	1.75	1.52	30.49	3.98
8	Personal Equipments	0.84	22.81	36.29	3.89
9	Gas	1.58	29.37	13.55	2.91
10	Rice	1.58	0.61	23.63	2.88
Total		45.72			62.10
B. Ranked by Percentage change					
1	Spices	0.54	40.10	40.96	2.57
2	Personal Equipments	0.84	22.81	36.29	3.89
3	Vegetable Ghee	2.07	11.59	31.41	5.04
4	Medical Equipment	0.01	11.46	31.03	0.02
5	Cooking Oil	1.75	1.52	30.49	3.98
6	Kerosene Oil	0.01	8.97	28.65	0.02
7	Fire Wood Whole	0.23	11.56	28.20	0.60
8	Gram Whole	0.16	12.48	26.59	0.46
9	Rice	1.58	0.61	23.63	2.88
10	Fresh Fruits	1.86	26.08	23.60	2.86
Total		9.06			22.31
C. Ranked by Weights					
1	House Rent	21.81	6.42	7.51	12.70
2	Milk Fresh	6.68	16.29	21.33	14.42
3	Electricity	4.40	27.62	5.23	2.46
4	Wheat Flour	4.16	-4.79	8.41	1.53
5	Education	3.94	4.80	14.30	4.56
6	Communication & Apparatus	3.15	15.28	1.09	0.51
7	Motor Fuel	3.03	8.28	22.47	6.12
8	Transport Services	2.70	16.55	9.13	2.65
9	Meat	2.43	25.25	21.42	5.60
10	Vegetable Ghee	2.07	11.59	31.41	5.04
Total		54.39			55.60
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 11.6 percent in August, 2011.					

**Table A4: Distribution of Price Changes (YoY) - Selected CPI Items: August 2011**

Groups	Decrease or no change	Subdued increase (Up to 5%)	Moderate increase (5 to 10%)	More than 10% increase
Food & Non-Alcoholic Beverages	Malta/Mosambi, Tomatoes, Chillies Green, Garlic, Onion, Brinjal, Ginger, Cucumber (Kheera), Karaila, Lady Finger,	Wheat, Wheat Flour Fine/Superior, Maida, Suji, Sugar Refined, Coffee-Nescafe 75 Gm., Chocolate Candy (Small Si, Pulse Masoor (Whole),	Lactogen 400 Grams, Almonds Whole Av.Qlty., Nimco, Beans (Lal Lobin), Jam Ahmed/Mitchelles, Pulse Gram, Pistachio Av.Qlty., Bread Plain Medium Size, Gur Av.Qlty, Cardamom Small Av.Qlty,	Chillies Powd.National 20, Cardamom Large Loose Av.Q, Coconut Dry Av.Qlty., Chillies Powder Loos, Cloves Loose Av.Qlty, Apple, Milo 200 Gm., Aloo Bukhara, Dates Av.Qlty., Vegetable Ghee Tin,
Alcoholic Beverages & Tobacco		Cigarettes Capstan 20,S,	Cigarettes K-20,S, Cigarettes Morven Gold 2, Cigarettes Gold Leaf 20',	Betel Nuts, Betel Leaves,
Clothing & Footwear	Child Shoe Power Lite Bat, Gents Shoes Paul Bata, Gents Spung Chappal Bata, Ladies Spung Chappal Bat, Ladies Sandal Bata, Gents Shoe, Art 1109 Serv, Gents Sandal Bata,	Secondhand Sweater For Me, Sports Shoes	Tailoring Charges Pant (M, Foot Wear Local (Children, Tailoring Coat-Pant Suit, Pullover Ladies Oxford/Bo, Vest/Shameez (Women) Avg.,	Dupatta Georgetown Av.Qlty, Brassier Sup Qlty, Lungi/Dhoti(Cotton) Avg., Frock W/Wear Girls, Georgetown Av.Qlty, Shoe Repair Half Sole, Linen Av. Qlty, Azarband Cotton Avg. Qlty, Shoes Polish Charges Aver, For Men Av.Qlty.,
Housing, Water, Elec. Gas & other Fuels	Unskilled Labour Wage Rat, Cement Blocks (6"X8"X12"),	Elect.Charges Upto 50 Uni, Elect.Charges 301 - 1000, Elect.Charges Above 1000, Water Charges Per House,	Electrician Wage Rate Per, Elect.Charges 101 - 300 U, Elect.Charges 01 - 100 U, House Rent, House Rent, House Rent, House Rent, House Rent, House Rent (Combined), Combined /Avg 1-5 Slabs,	Bricks (New) 1st Class, Kerosene Oil, Timber Shesham Log 1st Qu, Firewood Whole, Synthetic Enamel Ici Balt, Cement (Local) Specify Br, Sand (Black Pit Sand), Electrician Wage Rate Per, Iron Bar (M.S. Bar) 1/2", Gas Chrg All Over 500 Cub,
Furnishing & Household Equip. Maintenance etc	Washing Powder (Wheel/ Bo, Match Box Small,	Washing Powder 1000 Grm (, Tube Light Philips 40 Wat, Non Stick Cooking Pan (De, Washing Machine Singer,	Household Servant Female, Refg, Dawlence 10 Cft. D., Carpet Plain Av. Qlty, S.Steel Deghchi Medium Si, Pedestal Fan 22" Super Ql, Gas Burner Double Spfy.Br, Table Shesham Wood (4X2X5, Aluminium Cooking Pan (De, Dining Table 6 Chairs A., Electric Blubs "0" Watte,	Robin Blue (35 Grams), Towel(3'X2') Av. Qlty, Washing Soap 250 Gms Spec, Marriage Hall Chg With Fu, Chair Shesham Wood With A, Pressure Cooker 4 Ltr., Dari Cotton (6X2 1/2) A, Quilt (Lihaf) 3 Kg. Cotto, Hand Stitching Needle M., Harpic,
Health	Dettol (Medium), Sancos Syrup (50 MI.), Polyfax Eye Ointment, Phenergan Syrup 120 ML, Hydryllin Syrup 120 ML, Flagyl Tab. 200 Mg., Calpol Syrup 60 ML., Cac. 1000 Tab, Burnol Cream 30 Grm, Betnovate-N Ointment 5 Gm,	Lederplex Syrup, Brufen Tabs 200-Mg., Ear Drops (Cardisporine), Amoxil Capsule 250 Mg.S, Disprin Tab., Ventolin Tab. 2Mg., Septran Tablets, Betnesol Eye Drops, Daonil Tab. 5 Mg., Jouhar Joshanda,	X-Ray (Chest) Charges, Blood Test (Cp) Charges, Sugar Test (Random/Fastin, Ecg Charges, Panadol Tab. Extra/Plain,	Galxos-D (450 Grms), Cotton Bandage 2" - 4", O.R.S. (Nimcol), Gripe-Water Woodwards, Saniplast One Putty, Calcium Syrup Sandoz, Entox Tab., Glycine Small Bottle, Thermometer China, Trisil Tab.,
Transport	Platform Ticket,	Motorcycle Honda Cd-70., Minibus Fare Max.With In, Bus Fare Max (Within City, Suzuki Fare Min.With In C, Car Honda Civic 1500Cc, Motor Cycle Hero 70 Cc, Car Toyota 1300 Cc,	Taxi 4 Seater Fare, Car Suzuki 800 Cc (W/O. A, Motorcycle Yamaha 100Cc., Tyre Car W/O Tube, Minibus Fare Min.With In, Car Suzuki 1000 Cc, Bus Fare Min (Within City,	Gas Cylinder S.Size(L.P.G, A/C Bus Fare Outside City, Petrol Super, High Speed Diesel Hsd, Tyre Cycle Specify Brand, Tyre Car With Tube Genera, Car Tax For 800Cc To 1300, Train Fare A/C Slp > 500K, Train Fare A/C Slp.101-50, Auto Rickshaw Fares,
Communication	U.M.S. Reg Charges Min., Telephone Charges Local C, Tel Charges Out Side City,	Postal Registration Chrg, Envelope For Saudi Arabia, Mobile Cell Charges, Mobile Set Nokia/Sony/Eri, Postal Envelope Domestic,	T.C.S. Ch. Min.With In Zo, Telephone Set Av. Qlty, Fax Charges (Local), Internet Charges,	
Recreation & Culture	Cinema A/C. High Class, English Book Class V1, Eng. Book 1st.Yr Complete, Weekly "Mag", Weekly "Akhbar-E-Jahan", Tv.Licence Fee Domestic, Daily "Nawa-E-Waqt", Daily "Jang", Daily "Dawn",	Urdu Book Class V (T.B.Bo, Vid. Cassette Blk, Tdk/So, Personnel Computer (Brand, Urdu Book Ba/B.Sc, Urdu Book Class Ix/X(T.B., Maths Book Calss V (T.B.B, Radio With C.Player Natio, Dvd/Vcd Player Panasonic/, Video Game Sega 16 Byte, Ball Pen (Local),	Paper Foolscape (27"X17"), Exercise.Book Lined 80/10, Fountain Pen Hero/Wings/C, Cinema Non-A/C High Class, Cable Charges, Maths Book Class Ix Or X, T.V 20" Color China/Koria, English Book Class Ix Or, Urdu Book 1st. Year/Inter, Pen Ink Dollor 57 MI Bott,	English Book Ba/B.Sc. Monthly "Naunehal Digest, Pakistan Studies Book Ba/, Photostate Paper 70 Gm, Pencilgoldfish/Deer, Tape Recorder Cassette B,
Education	Pvt Eng.Colege Fee (1st Y, Govt. College Fee 1st. Ye,	Govt. College Fee 4Th. Ye, 1.T. Tuition Fees,	Coaching Fee For Class Ix, Govt. University Fee Msc,	Govt. Med. College Fee Mb, Pvt Med.Colege Fee Mbbs(I, Pvt School Fee Eng.Med(CI, Govt. Engg. Coll. Fee I Y, Pvt School Fee Eng.Med(CI, Pvt School Fee Eng.Med(CI, Pvt School Fee Eng.Med(CI, Mba Tuition Fees, Coaching Charges For Clas, Coaching Charges For Clas,
Restaurant & Hotels				Cooked Dal (Av. Hotel), Cooked Beef (Av. Hotel), Chicken Biryani Full/Doub, Cooked Mutton (Av. Hotel), Bread Tandoori St. Size,
Miscellaneous		Wrist Watch Ladies Citize, Toothpowder Dentonic 90 G,	Shaving Cream Touch-Me/Ad, Hair Colour (Kalakola), Wrist Watch Gents Citizen, Nail Polish S.Miss/Medora, Wall Clock Quartz Av.Qlty, Toothpaste Macklines 70 G, Facecream Ponds (Medium),	Toilet Soap Lux 95 Grams, Blade Treet Ordinary 10', Artificial Jewellery Set, Toilet Soap Lifebouy 140, Talc Powder Vice Roxy,B.C. Shaving Charges, Purse Ladies (Leather) Av. Beauty Porl Hair Styl Cha, Gel Medium Size, Haircut Charges For Men,

Table A5: City- wise CPI Inflation by Income Groups, August, 2011												
	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	10.0	-0.1	10.3	1.1	9.7	0.7	10.1	0.1	10.2	1.2	10.0
2 Islamabad	0.2	11.1	-0.7	11.2	0.8	11.0	0.5	11.8	-0.5	11.8	1.2	11.7
3 Lahore	0.8	8.9	0.6	9.6	0.9	8.3	0.9	8.9	0.9	9.9	0.9	8.2
4 Gujranwala	1.0	10.6	1.0	11.5	1.0	10.0	1.3	10.8	1.6	12.3	1.2	9.7
5 Sialkot	0.8	7.8	0.8	7.8	0.8	7.8	0.9	8.0	1.0	8.6	0.8	7.6
6 Faisalabad	0.6	9.5	0.2	8.9	1.0	10.0	0.6	9.5	0.1	9.1	1.0	9.7
7 Multan	0.6	9.5	0.4	9.3	0.7	9.7	0.6	9.5	0.4	9.4	0.7	9.5
8 Sargodha	0.7	11.5	0.7	9.2	0.7	13.0	0.9	12.1	0.9	9.6	0.9	13.8
9 Bahawalpur	0.4	14.3	0.0	12.6	0.7	15.6	0.5	14.4	0.0	13.3	0.8	15.1
10 Karachi	1.7	10.6	2.3	11.3	1.3	10.1	1.8	10.7	2.5	11.5	1.3	10.2
11 Hyderabad	0.8	11.1	0.6	12.7	0.9	9.9	0.8	11.3	0.5	13.1	1.0	9.9
12 Sukkur	1.5	13.0	2.0	15.6	1.1	11.2	1.4	13.1	1.9	16.3	1.0	10.9
13 Larkana	1.5	13.4	1.1	15.1	1.8	12.1	1.8	13.8	1.3	15.4	2.2	12.6
14 Peshawar	0.7	10.4	0.4	9.9	0.8	10.7	0.7	10.4	0.5	10.5	0.9	10.3
15 Bannu	0.7	9.6	0.3	8.2	1.0	10.6	1.0	10.6	0.4	9.2	1.4	11.6
16 Quetta	1.4	11.3	1.6	13.3	1.3	9.8	1.3	11.5	1.5	14.1	1.3	9.6
17 Khuzdar	0.4	15.3	0.5	14.8	0.3	15.6	0.4	15.4	0.5	14.7	0.4	15.9
	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	0.8	10.6	0.0	10.4	1.3	10.7	1.0	10.9	0.2	10.3	1.5	11.2
2 Islamabad	0.6	12.1	-0.4	12.0	1.4	12.2	0.8	11.9	-0.2	11.8	1.6	12.0
3 Lahore	1.0	9.2	0.9	10.2	1.0	8.4	1.0	9.2	1.0	10.6	1.0	8.1
4 Gujranwala	1.5	11.3	1.8	12.9	1.4	10.2	1.6	11.3	1.9	13.3	1.4	10.0
5 Sialkot	1.1	8.1	1.2	8.4	0.9	7.9	1.0	8.1	1.2	8.3	0.9	8.0
6 Faisalabad	0.6	9.3	0.1	9.3	1.0	9.4	0.7	9.4	0.3	9.3	1.1	9.4
7 Multan	0.6	9.8	0.3	9.8	0.7	9.7	0.6	9.5	0.3	9.8	0.8	9.3
8 Sargodha	1.0	12.3	0.9	9.3	1.1	14.3	1.1	12.4	0.9	9.6	1.3	14.4
9 Bahawalpur	0.5	14.9	-0.2	13.3	0.9	16.0	0.6	14.8	-0.5	13.8	1.3	15.5
10 Karachi	1.8	10.9	2.4	11.4	1.3	10.6	1.4	10.7	2.4	11.6	0.7	10.0
11 Hyderabad	0.9	11.5	0.5	13.1	1.2	10.4	1.0	11.7	0.6	13.7	1.3	10.2
12 Sukkur	1.5	13.3	2.1	16.2	1.2	11.3	1.6	13.1	2.0	15.9	1.2	11.2
13 Larkana	1.8	13.9	1.2	15.7	2.3	12.6	1.9	13.8	1.3	15.8	2.3	12.4
14 Peshawar	0.9	10.4	0.7	10.3	1.0	10.5	0.9	10.4	0.6	10.9	1.1	10.1
15 Bannu	1.1	10.5	0.6	8.7	1.4	11.9	1.0	10.6	0.4	9.6	1.5	11.4
16 Quetta	1.4	12.1	1.5	15.0	1.4	10.0	1.6	12.1	1.8	15.2	1.4	9.9
17 Khuzdar	0.5	15.8	0.5	15.2	0.5	16.2	0.5	15.1	0.3	15.2	0.6	15.1
	Above Rs 35000						Combined					
	General		Food		Non-Food		General		Food		Non-Food	
	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY
1 Rawalpindi	1.4	12.2	0.6	11.1	2.0	13.0	1.2	11.6	0.4	10.8	1.8	12.3
2 Islamabad	1.3	12.2	0.0	12.8	2.3	11.8	1.2	12.2	-0.1	12.6	2.2	11.8
3 Lahore	1.0	9.0	0.8	11.7	1.1	6.9	1.0	9.0	0.9	10.9	1.1	7.6
4 Gujranwala	1.4	11.1	2.0	13.5	0.9	9.5	1.4	11.1	1.8	12.9	1.2	9.8
5 Sialkot	1.1	8.3	1.3	8.6	0.9	8.1	1.0	8.1	1.2	8.4	0.9	7.9
6 Faisalabad	1.0	10.0	0.4	10.0	1.4	10.1	0.8	9.6	0.2	9.4	1.2	9.7
7 Multan	1.0	10.3	0.5	11.2	1.4	9.7	0.8	9.9	0.4	10.1	1.1	9.6
8 Sargodha	1.2	12.6	0.6	9.5	1.6	14.9	1.0	12.2	0.8	9.5	1.2	14.2
9 Bahawalpur	0.5	14.8	-1.0	14.5	1.6	14.9	0.5	14.6	-0.4	13.5	1.1	15.3
10 Karachi	1.2	10.6	2.2	12.8	0.5	8.9	1.5	10.7	2.3	12.2	0.9	9.7
11 Hyderabad	1.4	12.6	0.5	14.5	2.1	11.3	1.1	11.8	0.6	13.6	1.5	10.5
12 Sukkur	1.5	13.6	1.9	16.2	1.2	11.9	1.5	13.2	2.0	16.1	1.2	11.2
13 Larkana	1.9	14.6	1.3	16.4	2.4	13.4	1.8	13.8	1.2	15.6	2.3	12.5
14 Peshawar	1.0	10.4	0.5	11.5	1.4	9.7	0.9	10.4	0.5	10.8	1.2	10.1
15 Bannu	2.3	13.9	1.3	11.1	3.0	15.9	1.2	10.9	0.6	9.3	1.7	12.1
16 Quetta	1.8	12.3	2.1	15.6	1.5	10.0	1.6	12.0	1.7	15.0	1.5	9.9
17 Khuzdar	1.2	16.7	-0.1	16.3	2.1	16.9	0.5	15.4	0.4	15.1	0.6	15.6

**Table A6: City- wise CPI Inflation (YoY) August, 2011**

	High inflation cities				Low inflation cities		
	General	Food	Non-food		General	Food	Non-food
Gawadar	15.9	17.6	14.8	Dadu	11.5	12.3	10.9
Loralai&Cantt	15.9	17.2	15.0	Sahiwal	11.4	10.9	11.7
Khuzdar	15.4	15.1	15.6	Jhang	11.2	10.6	11.7
Bahawalnagar	15.0	13.0	16.5	Gujranwala	11.1	12.9	9.8
Bahawalpur	14.6	13.5	15.3	Rahim Yar Khan	11.0	10.3	11.5
Dera Mrd.Jamali	14.1	16.7	12.4	Bannu	10.9	9.3	12.1
Larkana	13.8	15.6	12.5	Karachi	10.7	12.2	9.7
D.I.Khan	13.7	13.7	13.7	Attock	10.7	9.9	11.2
Mithi	13.4	13.7	13.1	Mardan	10.4	8.1	11.9
Nawabshah	13.2	12.3	13.8	Peshawar	10.4	10.8	10.1
Sukkur	13.2	16.1	11.2	Mianwali	10.3	10.9	9.9
Mir Pur Khas	13.1	18.2	9.6	Muzaffargarh	10.0	10.5	9.5
Turbat	13.1	14.0	12.5	Multan	9.9	10.1	9.6
Abbotabad	13.0	14.6	12.1	Faisalabad	9.6	9.4	9.7
Jehlum	12.5	13.4	11.9	Lahore	9.0	10.9	7.6
Wazirabad	12.4	15.7	10.1	Sialkot	8.1	8.4	7.9
D.G. Khan	12.3	14.0	11.2	Mingora	7.6	5.5	9.0
Sargodha	12.2	9.5	14.2				
Islamabad	12.2	12.6	11.8				
Vehari	12.1	13.7	11.0				
Quetta	12.0	15.0	9.9				
Hyderabad	11.8	13.6	10.5				
Rawalpindi	11.6	10.8	12.3				

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

<b>Table A7 : Income Group-wise Inflation ( percent)</b>						
	<b>MoM</b>			<b>YoY</b>		
	<b>Aug-10</b>	<b>Jul-11</b>	<b>Aug-11</b>	<b>Aug-10</b>	<b>Jul-11</b>	<b>Aug-11</b>
<b><u>Up to Rs. 8000</u></b>						
General	2.9	2.0	1.3	12.9	13.2	11.3
Food	4.9	2.8	1.4	15.0	15.9	12.0
Non-food	1.6	1.4	1.2	11.4	11.3	10.8
<b><u>Rs. 8001- 12000</u></b>						
General	2.7	1.9	1.3	13.1	13.1	11.5
Food	4.9	2.8	1.4	15.5	16.4	12.5
Non-food	1.3	1.3	1.2	11.4	10.9	10.8
<b><u>Rs. 12001- 18000</u></b>						
General	2.6	1.8	1.2	12.0	13.1	11.5
Food	4.9	2.9	1.4	15.9	16.6	12.8
Non-food	1.0	1.1	1.0	9.3	10.6	10.6
<b><u>Rs. 18001- 35000</u></b>						
General	2.4	1.7	1.4	14.0	12.5	11.4
Food	5.0	2.9	1.5	16.3	17.0	13.0
Non-food	0.6	0.8	1.4	12.4	9.5	10.3
<b><u>Above Rs. 35000</u></b>						
General	1.8	0.7	1.5	12.7	11.9	11.6
Food	4.9	2.9	1.5	16.5	17.8	13.9
Non-food	-0.3	-0.9	1.6	10.1	7.9	10.0
<b><u>All income groups</u></b>						
General	2.2	1.3	1.4	12.8	12.4	11.6
Food	4.9	2.9	1.4	16.1	17.1	13.2
Non-food	0.3	0.1	1.4	10.5	9.3	10.4



Table A8: SPI Item-wise Price Movements

Sr.No.	Items	Unit	Prices	Percentage change	
			Aug-11	YoY	MoM
1	Wheat	10Kg.	254.7	5.1	0.1
2	Wheat Flour Bag	10Kg.	283.1	11.8	-3.4
3	Rice Basmati Broken	Kg.	58.9	30.4	2.8
4	Rice Irri-6/9	Kg.	44.7	25.1	2.3
5	Bread Plain Med.Size (340-400 Gm.)	Each	30.5	11.5	0.2
6	Beef	Kg.	239.8	20.4	2.6
7	Mutton	Kg.	458.1	22.2	1.6
8	Chicken Live (Farm)	Kg.	164.4	20.7	2.2
9	Milk Fresh	Litr	56.0	20.4	0.3
10	Curd	Kg.	65.9	19.8	1.0
11	Milk Powdered Nido	500G	229.4	14.7	-0.2
12	Egg Hen (Farm)	Doz.	79.8	14.1	1.0
13	Mustard Oil	Kg.	171.2	22.6	0.9
14	Cooking Oil (Tin)	2.5Ltr	495.0	32.5	0.0
15	Veg. Ghee (Tin)	2.5Kg.	495.0	32.5	0.0
16	Veg. Ghee Loose	Kg.	166.4	31.1	0.1
17	Bananas	Doz.	65.9	25.0	14.4
18	Masoor Pulse Washed	Kg.	106.0	-10.1	-1.4
19	Moong Pulse Washed	Kg.	139.5	16.0	-0.5
20	Mash Pulse Washed	Kg.	153.3	-9.6	-0.8
21	Gram Pulse Washed	Kg.	72.9	9.7	0.8
22	Potatoes	Kg.	31.0	-11.5	-1.7
23	Onions	Kg.	24.0	-18.4	31.7
24	Tomatoes	Kg.	36.8	-38.8	-12.1
25	Sugar	Kg.	75.1	2.4	5.3
26	Gur	Kg.	88.5	8.9	2.9
27	Salt Powdered Loose (Lahori)	Kg.	7.8	12.5	1.3
28	Red Chillies Powder Loose	Kg.	252.6	38.9	-0.3
29	Garlic	Kg.	136.2	-34.9	-6.8
30	Tea (Yellow Lable 200 Gm.)	200Gm.	131.6	11.6	0.0
31	Cooked Beef Plate	Each	57.6	15.9	0.4
32	Cooked Dal Plate	Each	36.1	16.4	0.6
33	Tea Prenared (Sada)	Cun	13.7	20.8	0.1
34	Cigarettes K-2 (20'S)	20'S	28.5	4.9	1.2
35	Long Cloth (Coarse Latha)	Mtr.	97.0	-34.8	4.6
36	Shirting	Mtr.	103.5	23.9	3.0
37	Lawn	Mtr.	98.4	-34.6	1.3
38	Georgette (Voil Printed)	Mtr.	82.8	24.0	2.0
39	Sandal Gents Bata	Pair	499.0	0.0	0.0
40	Chappal Sng. Bata (Gents)	Pair	139.0	0.0	0.0
41	Sandal Ladies Bata	Pair	399.0	0.0	0.0
42	Electric Charges	Unit	1.9	4.5	0.0
43	Gas Charges	Mmbtu	125.1	13.5	13.5
44	Kerosene	Litr	98.5	29.3	2.0
45	Firewood	40Kg	401.5	27.1	1.6
46	Energy Savor 14 Wats	Each	133.2	8.0	1.1
47	Washing Soan (200-250 Gm.)	Cake	17.5	28.4	1.0
48	Match Box	Each	1.1	5.0	1.9
49	Petrol	Litr	85.9	25.5	1.5
50	Diesel	Litr	93.0	26.1	0.1
51	L.P.G. ( 11 Kg Cvlander.)	Each	1403.3	28.6	4.3
52	Tele. Local Call	Call	3.6	0.0	0.0
53	Bath Soap Lifebouy (Standard)	Cake	30.0	25.0	0.0
Maximum				38.9	31.7
Median				14.7	0.8
Minimum				-38.8	-12.1

<b>Table A9: Distribution of Price Change (YoY) - WPI Items: August 2011</b>				
<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>	Sugar Crops, Edible Roots/ Potatoes, Vegetables, Sorghum/ Jowar, Fishes Live Fresh Or Chilled,	Wheat, Stimulant And Spice Crops,	Fibre Crops,	Fresh Fruits, Pulses, Millet/Bajra, Fuel Wood In Logs, Other Oil Seeds, Dry Fruits, Cotton Seeds, Raw Animal Material/Wool, Milk From Bovine Animals, Eggs, Rice, Maize, Poultry, Hides And Fur Skins, Raw, Unmanufactured Tobacco,
<b>Ores &amp; Minerals, Electricity Gas &amp; Water</b>		Electrical Energy,		Salt & Pure Sodium Chloride, Natural Gas Liquefied, Coal Not Agglomerated,
<b>Food Products, Beverages and Tobacco, Textiles, Apparel and Leather Products</b>	Milk And Cream In Solid Form, Sugar Confectionary, Foot wears,	Woolen Carpets, Wheat Flour, Leather With Out Hairs, Chocolate,	Oil Cakes, Ready Made Garments, Cotton Yarn, Other Leather N.E.C,	Spices, Vegetable Ghee, Towels, Other Food Products, Vegetable Oil Refined, Mineral Water, Nylon Yarn, Dairy Products N.E.C, Cotton Fabrics, Hosiery Products, Coffee And Tea, Bed Sheets, Vegetables & Fruit Juices, Meat Of Animals, Blankets, Fruit Juices, Dried Fruits & Nuts, Processed Liquid Milk, Blended Yarn, Woven Fabrics, Other Fabrics, Other Cereal Flour, Beverages, Quilts, Silk And Rayon Fabrics, Synthetic Carpets, Sugar Refined, Ice Cream, Tobacco Products,
<b>Other Transportable Goods except Metal Products, Machinery and Equipments</b>		Glass Sheets, Dying Materials, Ceramics And Sanitary, Medicines,	Timber, Insecticides, Matches,	Fertilizers, Hard Board, Furnace Oil, Plastic Products, Kerosene Oil, Pesticides, Diesel Oil, Motor Sprit, Paints & Varnishes, Other Glass Articles, Chemicals, Cement, Soaps & Detergent, Mobil Oil, Auto Tyres, Bricks Blocks And Tiles, Coke, Bed Foams, Printing Paper,
<b>Metal Product Machinery &amp; Equipment</b>	Pig Iron,	Lathe Machines, Engines And Motors, Vacuum Pumps, Chuff Cutter, Concrete Mixer,	Cultivators, Motor Vehicles, Radio And Television, Motor Cycles,	Bicycles, Tractors, Refrige, Wash& Sew Mach, Iron, Fan, Steel Products, Steel Bars & Sheets, Lighting Equipments, Air Conditioners, Electrical Wires, Pipe Fittings,

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

Items and specification	Weights	Index		
		Aug-10	Jul-11	Aug-11
<b>General</b>	<b>100.00</b>	<b>140.63</b>	<b>154.72</b>	<b>156.88</b>
<b>Food &amp; Non-Alcoholic Beverages.</b>	<b>34.83</b>	<b>157.18</b>	<b>175.28</b>	<b>177.95</b>
1 Wheat	0.35	143.51	149.37	150.12
2 Wheat Flour	4.16	146.53	159.16	158.86
3 Wheat Product	0.10	153.94	157.76	158.22
4 Besan	0.15	148.08	163.59	164.38
5 Rice	1.58	120.79	145.88	149.33
6 Cereals	0.16	155.10	178.16	179.57
7 Bakery & Confectionary	1.16	138.49	156.19	156.97
8 Nimco	0.46	149.49	170.30	172.25
9 Meat	2.43	159.31	189.56	193.43
10 Chicken	1.36	159.99	179.00	190.01
11 Fish	0.30	141.01	162.97	164.52
12 Milk Fresh	6.68	155.62	186.70	188.81
13 Milk Product	0.63	151.99	181.88	185.07
14 Milk Powder	0.11	134.71	152.98	154.11
15 Egg	0.46	145.92	153.99	155.84
16 Mustard Oil	0.10	121.19	145.04	145.96
17 Cooking Oil	1.75	110.90	144.40	144.71
18 Vegetable Ghee	2.07	118.65	155.62	155.92
19 Dry Fruits	0.25	155.61	181.26	188.89
20 Fresh Fruits	1.86	163.24	190.73	201.77
21 Pulse Masoor	0.27	168.02	159.64	159.37
22 Pulse Moong	0.23	229.21	268.94	267.93
23 Pulse Mash (Washed)	0.21	240.53	221.55	218.31
24 Pulse Gram	0.24	149.61	160.75	163.07
25 Gram Whole	0.16	146.35	174.70	185.26
26 Beans	0.03	158.06	170.59	173.25
27 Potatoes	0.47	233.29	212.95	209.66
28 Onion	0.53	187.18	102.16	134.96
29 Tomatoes	0.44	193.90	136.41	110.01
30 Fresh Vegetable	1.68	221.32	184.27	182.59
31 Sugar	1.04	261.03	252.46	266.42
32 Gur	0.02	250.25	260.52	271.10
33 Honey	0.04	166.12	197.41	195.85
34 Sweet Meet	0.25	150.37	181.05	181.24
35 Beverages	1.20	131.58	156.10	157.06
36 Jam, Tomato Ketchup & Pickle	0.25	146.61	164.75	166.77
37 Condiments	0.27	151.41	174.59	177.66
38 Spices	0.54	168.34	236.24	237.29
39 Tea	0.84	174.41	199.69	199.84
<b>Alcoholic Beverages, Tobacco</b>	<b>1.41</b>	<b>150.04</b>	<b>160.33</b>	<b>160.77</b>
40 Cigarette	1.39	150.32	160.38	160.76
41 Betel Leaves & Nuts	0.02	132.97	157.36	161.31
<b>Clothing &amp; Footwear</b>	<b>7.57</b>	<b>127.28</b>	<b>143.03</b>	<b>144.70</b>
42 Cotton Cloth	1.73	122.39	141.68	143.76
43 Woolen Cloth	0.88	129.98	154.48	156.43
44 Ready Made Garment	0.97	124.32	139.58	141.95
45 Woolen Readymade Garments	0.40	129.25	138.57	138.77
46 Hosiery	0.51	129.91	150.15	153.36
47 Dopatta	0.44	124.37	148.43	151.28
48 Cleaning & Laundering	0.21	136.87	153.90	153.99

<b>Table A10: Consumer Price Index Numbers by Major Groups and Selected Commodities</b>				
<b>Items and specification</b>	<b>Weights</b>	<b>Index</b>		
		<b>Aug-10</b>	<b>Jul-11</b>	<b>Aug-11</b>
49 Tailoring	0.88	146.02	166.62	168.69
50 Foot wear	1.55	120.53	122.56	122.69
<b>Housing, Water, Elect, Gas &amp; Other Fuel</b>	<b>29.41</b>	<b>131.23</b>	<b>140.08</b>	<b>141.65</b>
51 House Rent	21.81	119.65	128.63	128.63
52 Construction Input Item	0.56	148.57	173.13	175.69
53 Construction Wage Rate	0.33	137.32	147.98	148.52
54 Water Supply	0.50	120.21	123.01	123.01
55 Electricity	4.40	160.32	168.71	168.71
56 Gas	1.58	204.32	204.32	232.00
57 Kerosene Oil	0.01	177.78	223.69	228.72
58 Fire Wood Whole	0.23	145.27	182.13	186.23
<b>Furnished H. Hold Equip.&amp; Mant Etc</b>	<b>4.21</b>	<b>132.15</b>	<b>144.82</b>	<b>148.31</b>
59 Furniture	0.33	128.26	141.06	143.22
60 Household Textile	0.65	127.28	142.92	146.29
61 Household Equipment	0.59	133.18	143.76	145.99
62 Utensils	0.32	127.32	139.81	141.78
63 Plastic Products	0.25	141.91	152.93	156.73
64 Washing Soap & Detergent	0.79	142.87	163.10	164.98
65 Sewing Needle & Dry Cell	0.15	119.70	133.16	133.21
66 Household Servant	1.04	128.50	134.26	141.03
67 Marriage Hall Charges	0.08	133.40	157.72	161.65
<b>Health</b>	<b>2.19</b>	<b>119.25</b>	<b>129.63</b>	<b>131.80</b>
68 Drug Medicine	1.27	113.03	120.51	120.59
69 Medical Equipment	0.01	129.04	166.55	169.08
70 Doctor (MBBS) Clinic Fee	0.59	129.54	147.49	153.58
71 Medical Test	0.32	124.61	131.86	135.01
<b>Transport</b>	<b>7.20</b>	<b>141.36</b>	<b>158.63</b>	<b>161.69</b>
72 Motor Vehicle	0.66	130.00	137.92	136.84
73 Motor Vehicle Accessories	0.24	155.45	173.62	177.26
74 Motor Fuel	3.03	128.78	151.63	157.72
75 Mechanical Service	0.46	135.33	149.97	151.43
76 Motor Vehicle Tax	0.11	100.00	118.09	119.80
77 Transport Services	2.70	159.67	173.31	174.24
<b>Communication</b>	<b>3.22</b>	<b>121.94</b>	<b>123.45</b>	<b>123.34</b>
78 Postal Services	0.07	157.99	162.09	163.05
79 Communication & Apparatus	3.15	121.18	122.64	122.50
<b>Recreation &amp; Culture</b>	<b>2.02</b>	<b>131.40</b>	<b>138.85</b>	<b>139.07</b>
80 Recreation & Culture	0.86	107.72	114.65	114.75
81 Text Books	0.57	157.16	163.74	164.00
82 News Papers	0.19	137.66	141.92	141.92
83 Stationery	0.40	142.88	154.31	154.81
<b>Education</b>	<b>3.94</b>	<b>122.27</b>	<b>138.92</b>	<b>139.75</b>
84 Education	3.94	122.27	138.92	139.75
<b>Restaurants And Hotels</b>	<b>1.23</b>	<b>150.63</b>	<b>177.90</b>	<b>178.46</b>
85 READY MADE FOOD	1.23	150.63	177.90	178.46
<b>Miscellaneous Goods And Services</b>	<b>2.76</b>	<b>142.01</b>	<b>165.50</b>	<b>172.21</b>
86 Personal Care	1.49	134.50	151.27	152.78
87 Cosmetics	0.39	121.64	131.44	132.99
88 Blades	0.03	124.80	151.35	152.27
89 Personal Equipments	0.84	165.27	206.77	225.24

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

Items and Specifications	Index		
	Aug-10	Jul-11	Aug-11
<b>General</b>	<b>150.14</b>	<b>177.26</b>	<b>178.24</b>
<b>Agriculture Forestry &amp; Fishery</b>	<b>166.57</b>	<b>189.78</b>	<b>189.98</b>
1 Wheat	153.22	155.93	156.81
2 Maize	139.39	168.55	169.61
3 Rice	118.53	136.50	144.66
4 Sorghum/Jowar	192.19	183.25	178.57
5 Millet/Bajra	119.23	160.60	159.94
6 Vegetables	191.27	155.13	177.31
7 Fresh Fruits	130.53	179.73	187.76
8 Dry Fruits	145.87	182.96	188.35
9 Cotton Seeds	153.32	197.72	196.72
10 Other Oil Seeds	122.77	159.75	162.07
11 Edible Roots/Potatoes	242.68	216.35	224.71
12 Stimulant And Spice Crops	203.13	201.34	205.61
13 Pulses	150.81	197.31	203.30
14 Sugar Crops	296.35	251.58	253.58
15 Fiber Crops	213.86	252.74	234.75
16 Unmanufactured Tobacco	150.87	169.05	168.65
17 Poultry	171.83	198.48	208.01
18 Milk From Bovine Animals	148.48	182.96	185.28
19 Eggs	137.84	161.42	168.77
20 Raw Animal Material/Wool	104.84	132.01	132.25
21 Hides And Fur Skins, Raw	102.44	116.59	121.32
22 Fuel Wood In Logs	134.79	176.63	178.37
23 Fishes Live Fresh Or Chilled	142.35	133.82	136.10
<b>Ores/Minerals, Gas &amp; Elect.</b>	<b>155.52</b>	<b>162.42</b>	<b>170.01</b>
24 Coal Not Agglomerated	113.33	125.49	125.49
25 Natural Gas Liquified	154.85	159.54	179.82
26 Salt & Pure Sodium Chloride	119.31	141.43	144.01
27 Electrical Energy	162.37	170.70	166.13
<b>Food, Beverages, Tobacco, Textiles</b>	<b>151.05</b>	<b>178.83</b>	<b>176.26</b>
28 Meat Of Animals	163.61	197.41	199.71
29 Vegetables & Fruit Juices	139.28	169.93	172.84
30 Dried Fruits & Nuts	156.75	190.13	189.49
31 Fruit Juices	125.71	152.78	153.15
32 Vegetable Oil Refined	112.75	154.70	154.78
33 Vegetable Ghee	99.60	140.91	140.73
34 Oil Cakes	144.31	166.46	158.07
35 Processed Liquid Milk	143.23	171.22	172.50
36 Milk And Cream In Solid Form	184.55	188.73	180.03
37 Ice Cream	136.87	153.62	153.62
38 Dairy Products N.E.C	131.50	163.88	171.36
39 Wheat Flour	143.03	149.55	147.54
40 Other Cereal Flour	124.70	143.60	146.64
41 Sugar Refined	246.19	267.87	280.55
42 Chocolate	99.72	99.45	101.46
43 Sugar Confectionary	102.28	100.89	100.89
44 Coffee And Tea	150.21	188.59	189.83
45 Spices	119.27	207.28	208.03
46 Other Food Products	214.15	290.03	294.55
47 Mineral Water	118.42	160.81	160.81
48 Beverages	111.49	130.26	130.69
49 Tobacco Products	159.24	177.72	177.98
50 Cotton Yarn	192.04	225.76	205.27
51 Nylon Yarn	144.57	197.01	194.90
52 Blended Yarn	175.26	215.74	210.43
53 Woven Fabrics	120.38	144.44	144.44
54 Cotton Fabrics	123.55	157.68	159.92
55 Other Fabrics	120.39	146.70	144.15
56 Silk And Rayon Fabrics	118.63	137.07	137.48

<b>Table A11: Wholesale Price Index Numbers by major Groups and Selected Commodities</b>			
<b>Items and Specifications</b>	<b>Index</b>		
	<b>Aug-10</b>	<b>Jul-11</b>	<b>Aug-11</b>
57 Towels	128.34	170.33	180.25
58 Blankets	112.72	137.48	137.48
59 Bed Sheets	125.40	152.16	155.69
60 Quilts	119.16	138.95	139.42
61 Woolen Carpets	103.57	107.14	107.14
62 Synthetic Carpets	136.44	151.29	155.52
63 Hosiery Products	116.74	148.44	148.81
64 Ready Made Garments	112.05	119.97	122.06
65 Leather With Out Hairs	105.18	107.45	107.45
66 Other Leather N.E.C	110.61	116.33	116.33
67 Foot wears	101.48	101.48	101.48
<b>Other Transportable Goods</b>	<b>140.22</b>	<b>180.83</b>	<b>184.17</b>
68 Timber	123.41	133.87	135.31
69 Printing Paper	107.00	115.36	118.38
70 Hard Board	98.96	141.67	141.67
71 Coke	136.21	155.28	155.28
72 Motor Sprit	113.59	141.38	143.22
73 Diesel Oil	175.49	222.70	225.88
74 Kerosene Oil	174.71	225.66	230.92
75 Furnace Oil	131.79	184.75	186.14
76 Mobil Oil	144.00	168.47	170.23
77 Chemicals	114.39	139.46	139.77
78 Dying Materials	104.96	107.04	106.14
79 Fertilizers	148.85	229.52	244.23
80 Pesticides	125.17	157.91	161.30
81 Insecticised	120.28	127.52	128.40
82 Paints & Varnishes	141.46	171.58	176.38
83 Medicines	115.53	115.54	115.90
84 Soaps & Detergent	120.50	145.12	144.47
85 Auto Tyres	140.95	161.85	165.78
86 Plastic Products	125.67	165.58	167.81
87 Glass Sheets	151.95	156.82	159.49
88 Other Glass Articles	157.37	192.26	192.36
89 Ceramics And Sanitary	129.39	131.02	130.68
90 Bricks Blocks And Tiles	133.54	153.09	155.42
91 Cement	129.77	156.80	156.55
92 Bed Foams	107.83	120.83	121.17
93 Matches	108.62	114.56	115.66
<b>Metal Product Machinerv &amp; Equip</b>	<b>116.31</b>	<b>145.93</b>	<b>146.74</b>
94 Pig Iron	128.97	128.97	128.97
95 Steel Bars & Sheets	110.74	128.65	130.79
96 Pipe Fittings	125.46	138.47	138.68
97 Steel Products	117.25	137.27	139.19
98 Engines And Motors	105.28	109.07	109.07
99 Vacuum Pumps	111.45	115.39	115.39
100 Air Conditioners	142.49	162.24	162.61
101 Cultivators	170.96	182.38	184.66
102 Chuff Cutter	126.82	131.08	131.08
103 Tractors	137.93	180.89	180.89
104 Lathe Machines	140.74	147.51	147.51
105 Concrete Mixer	134.63	138.83	138.83
106 Refrige, Washing & Sew Mach, Iron, Fan	127.97	158.44	160.46
107 Electrical Wires	137.71	153.24	152.67
108 Lighting Equipments	110.21	130.46	130.07
109 Radio And Television	120.33	127.86	128.54
110 Motor Vehicles	136.91	147.72	147.80
111 Motor Cycles	114.28	120.86	121.17
112 Bicycles	114.09	159.78	160.14

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

Period		CPI			WPI			SPI *
		Overall	Food	Non-food	Overall	AFFP	Non-AFFP	
2008-09		117.03	123.12	113.38	118.93	119.10	118.87	123.26
2009-10		128.85	139.05	122.73	135.40	142.02	133.10	139.84
2010-11		146.45	164.10	135.87	164.17	183.20	157.56	164.02
2009	Jan	116.46	119.80	114.46	115.90	114.26	116.47	120.77
	Feb	118.06	123.01	115.10	117.00	116.20	117.28	122.56
	Mar	118.49	124.08	115.14	117.52	117.59	117.50	123.76
	Apr	119.68	125.91	115.95	119.50	121.66	118.75	124.35
	May	119.60	125.42	116.11	121.07	123.45	120.24	125.23
	Jun	120.64	126.77	116.97	122.56	123.47	122.24	126.88
	Jul	122.46	130.97	117.36	124.71	125.69	124.37	130.55
	Aug	124.68	134.95	118.53	127.79	129.56	127.18	132.84
	Sep	124.89	135.20	118.71	128.83	133.69	127.14	134.11
	Oct	125.64	135.98	119.44	130.03	136.98	127.62	134.82
	Nov	127.30	138.87	120.37	132.41	138.84	130.18	137.06
	Dec	126.37	135.81	120.72	132.65	138.69	130.55	136.90
2010	Jan	129.64	138.54	124.31	136.97	140.52	135.74	141.97
	Feb	130.13	139.06	124.78	138.26	142.78	136.69	143.00
	Mar	131.75	141.71	125.78	140.35	148.25	137.61	144.87
	Apr	134.16	145.24	127.52	143.09	153.59	139.44	146.52
	May	134.34	145.69	127.54	144.73	157.02	140.46	147.54
	Jun	134.83	146.63	127.76	144.97	158.58	140.25	147.90
	Jul	137.62	149.33	130.60	147.38	161.73	142.40	152.10
	Aug	140.63	156.70	131.00	150.19	166.57	144.50	155.44
	Sep	143.49	163.96	131.22	152.74	171.86	146.10	161.00
	Oct	144.90	163.91	133.51	155.40	173.65	149.06	163.01
	Nov	146.34	166.59	134.21	159.34	179.17	152.46	167.56
	Dec	145.90	163.69	135.24	162.48	183.81	155.07	166.52
2011	Jan	147.67	166.52	136.38	165.58	188.37	157.67	166.95
	Feb	146.85	163.56	136.83	168.83	191.81	160.85	164.99
	Mar	148.91	167.10	138.01	174.41	198.54	166.03	166.80
	Apr	150.99	169.25	140.05	178.68	200.16	171.22	167.83
	May	151.33	168.77	140.88	176.97	189.83	172.51	167.97
	Jun	152.78	169.88	142.53	177.98	192.88	172.81	168.09
	Jul	154.72	174.80	142.69	177.26	189.78	172.91	171.45
	Aug	156.88	177.32	144.63	178.24	189.98	174.16	173.86

\*: all groups combined

<b>Table A13: International Commodity Prices/ Indices</b>				
	<b>May-11</b>	<b>Jun-11</b>	<b>Jul-11</b>	<b>Aug-11</b>
<b>Energy</b>				
Crude Oil (US\$ per barrel) *	108.2	105.9	107.9	100.5
IMF Energy Index (2005 = 100)	198.7	196.6	200.9	189.1
WB Energy Index (1990 = 100) @	364.1	357.7	364.9	342.1
<b>Food</b>				
Rice (\$/MT)	500.6	518.1	546.2	573.8
Wheat (\$/MT)	354.5	326.5	303.9	327.1
Sugar (US cent/ pound)	21.9	24.9	29.5	28.9
Palm Oil (\$/MT)	1,143.4	1,075.9	1,033.6	1,047.5
Soybean Oil (\$/MT)	1,255.7	1,250.1	1,242.1	1,225.2
<b>Non-Food Non-Energy</b>				
Cotton Outlook 'A' Index #	165.5	160.7	149.3	114.1
IMF Metal Price Index (2005 = 100)	239.5	235.7	242.2	232.8
Copper (\$/MT)	8,931.7	9,066.9	9,650.5	8,998.0
Aluminum (\$/MT)	2,587.2	2,557.8	2,525.4	2,381.0
Iron Ore (\$ cents/dry MT)	177.1	170.9	173.0	177.5
Tin (\$/MT)	28,571.4	25,519.7	27,398.1	24,056.7
Nickle (\$/MT)	24,164.6	22,420.9	23,848.0	21,864.7
Zinc (\$/MT)	2,159.6	2,234.5	2,397.8	2,199.3
Lead (\$/MT)	2,419.6	2,525.0	2,681.0	2,393.1
Uranium (\$/MT)	56.1	55.4	52.8	50.7
DAP (\$/MT)	609.8	612.0	650.6	659.4
Urea (\$/MT)	397.4	485.9	474.8	477.5
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 Adjusted**

<b>CPI Index Original Series</b>				
<b>Period</b>	<b>FY09</b>	<b>FY10</b>	<b>FY11</b>	<b>FY12</b>
<b>Jul</b>	112.35	122.46	137.62	154.72
<b>Aug</b>	114.32	124.68	140.63	156.88
<b>Sep</b>	115.23	124.89	143.49	
<b>Oct</b>	116.83	125.64	144.90	
<b>Nov</b>	116.46	127.30	146.34	
<b>Dec</b>	116.18	126.37	145.90	
<b>Jan</b>	116.46	129.64	147.67	
<b>Feb</b>	118.06	130.13	146.85	
<b>Mar</b>	118.49	131.75	148.91	
<b>Apr</b>	119.68	134.16	150.99	
<b>May</b>	119.60	134.34	151.33	
<b>Jun</b>	120.64	134.83	152.78	
<b>CPI Index Seasonally Adjusted Series</b>				
<b>Jul</b>	111.99	122.10	137.27	154.36
<b>Aug</b>	113.61	123.86	139.66	155.77
<b>Sep</b>	114.67	124.23	142.68	
<b>Oct</b>	116.12	124.87	143.99	
<b>Nov</b>	115.87	126.65	145.58	
<b>Dec</b>	116.77	127.01	146.63	
<b>Jan</b>	116.60	129.79	147.83	
<b>Feb</b>	118.55	130.66	147.46	
<b>Mar</b>	119.17	132.56	149.87	
<b>Apr</b>	119.80	134.28	151.10	
<b>May</b>	120.09	134.92	152.04	
<b>Jun</b>	121.23	135.50	153.54	

**Table 15: CPI Index Monthly & Average Seasonal Factors**

CPI Index – Seasonal Factors					
Period	FY09	FY10	FY11	FY12	Average
Jul	100.32	100.30	100.26	100.23	100.28
Aug	100.62	100.67	100.69	100.71	100.67
Sep	100.49	100.54	100.57		100.53
Oct	100.61	100.61	100.63		100.62
Nov	100.51	100.52	100.52		100.52
Dec	99.50	99.50	99.50		99.50
Jan	99.88	99.88	99.89		99.88
Feb	99.58	99.59	99.59		99.59
Mar	99.43	99.39	99.36		99.40
Apr	99.90	99.91	99.93		99.91
May	99.59	99.57	99.53		99.56
Jun	99.52	99.51	99.51		99.51

**Table 16: CPI Index Month-on-Month Changes Original & Seasonally Adjusted**

CPI Index MoM % Change Original Series				
Period	FY09	FY10	FY11	FY12
Jul		1.51	2.07	1.27
Aug	1.75	1.81	2.19	1.40
Sep	0.80	0.17	2.03	
Oct	1.39	0.60	0.98	
Nov	-0.32	1.32	0.99	
Dec	-0.24	-0.73	-0.30	
Jan	0.24	2.59	1.21	
Feb	1.37	0.38	-0.56	
Mar	0.36	1.24	1.40	
Apr	1.00	1.83	1.40	
May	-0.07	0.13	0.23	
Jun	0.87	0.36	0.96	
Seasonally Adjusted Series				
Jul		0.72	1.31	0.54
Aug	1.45	1.44	1.75	0.91
Sep	0.93	0.30	2.16	
Oct	1.26	0.52	0.92	
Nov	-0.22	1.42	1.11	
Dec	0.78	0.29	0.72	
Jan	-0.14	2.19	0.82	
Feb	1.67	0.67	-0.25	
Mar	0.52	1.45	1.63	
Apr	0.53	1.30	0.83	
May	0.24	0.48	0.62	
Jun	0.95	0.43	0.99	

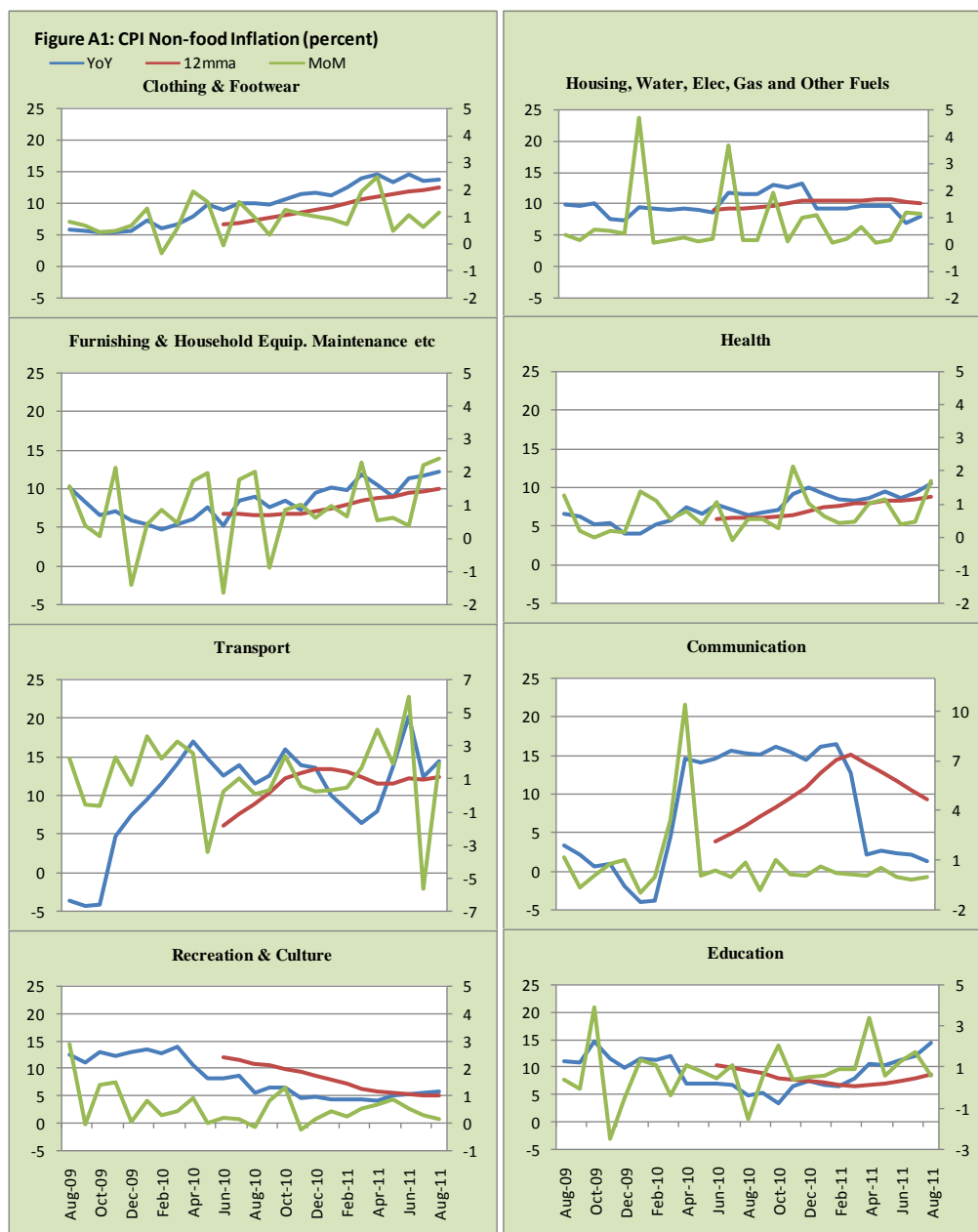


Figure A2: Frequency Distribution of Price Changes of CPI Items, August 2011

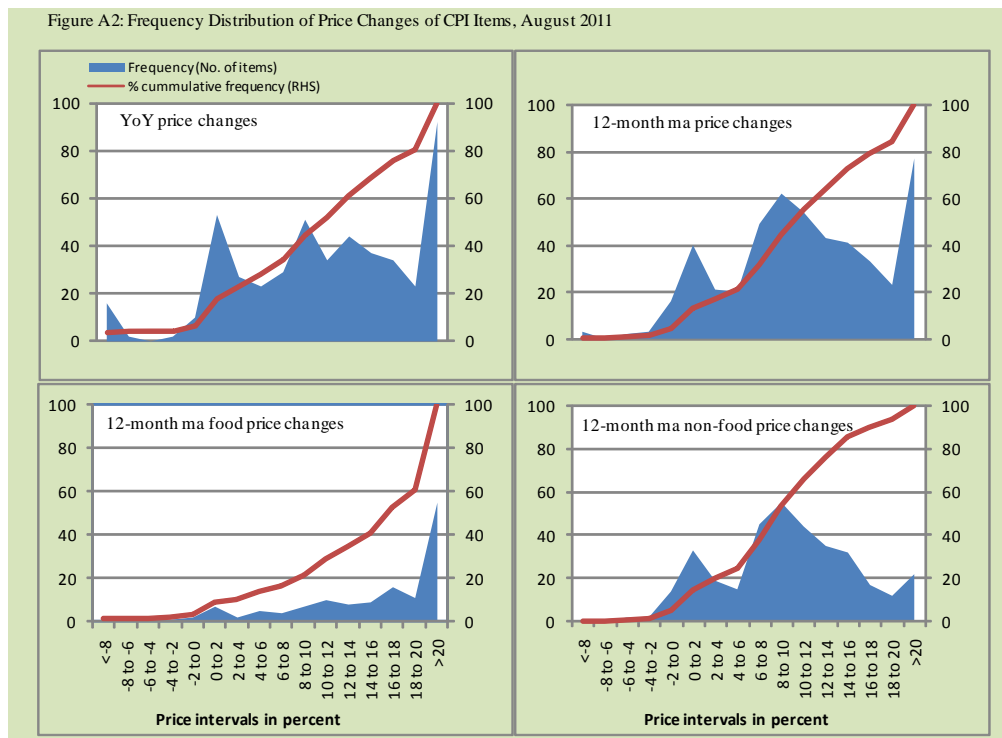
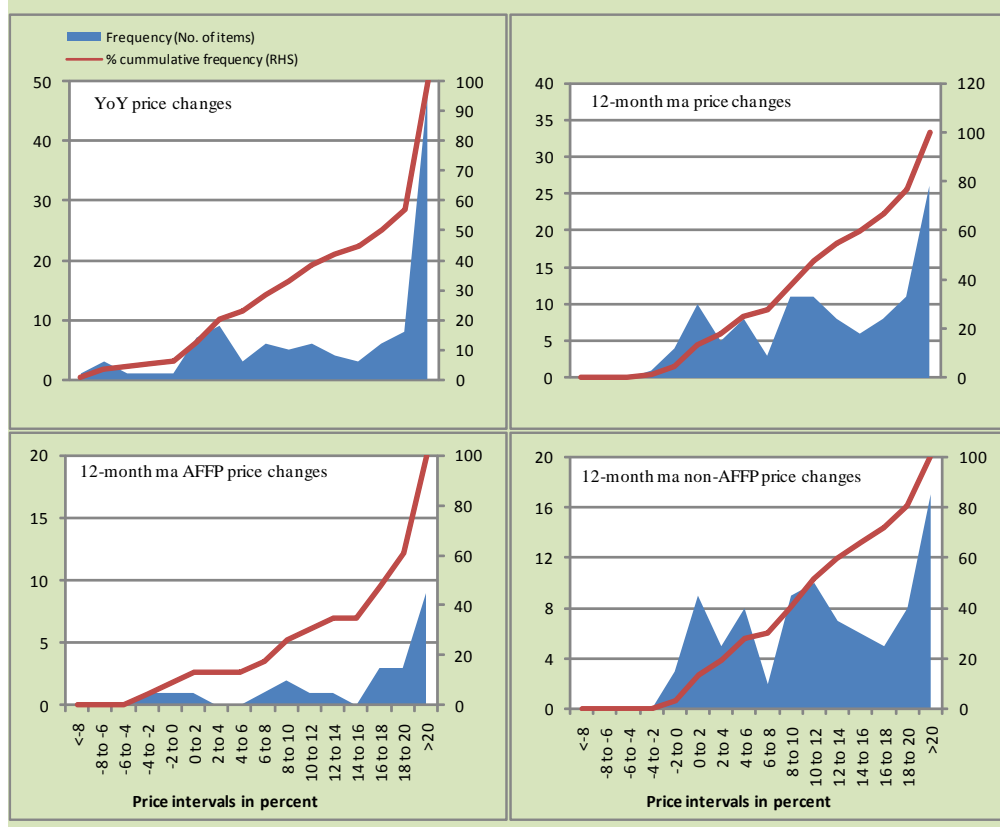
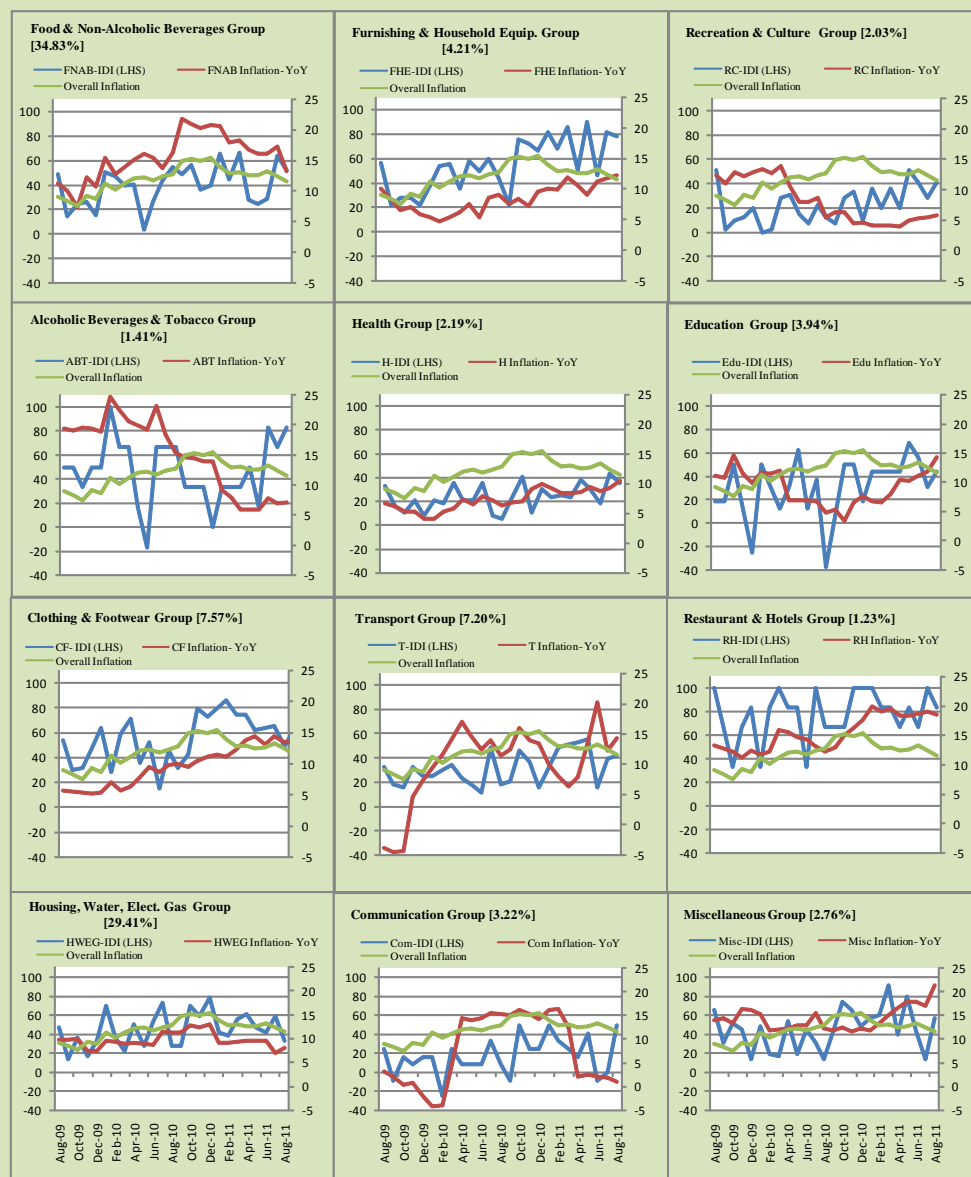


Figure A3: Frequency Distribution of Price Changes of WPI Items, August 2011



## Inflation Monitor, August 2011

Figure A4: Group-wise 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 commodities; SPI contains 53 commodities.
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.

---

<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.