

Inflation Monitor

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Review

Inflation in Brief

1. Headline CPI inflation (2007-08=100) is recorded at 9.1 percent on year-on-year basis in October 2013 as compared to 7.4 percent in the previous month and 7.7 percent in the corresponding month of last year.
2. CPI inflation on month-on-month basis is recorded at 2.0 percent in October 2013 as compared to -0.3 percent in the previous and 0.4 percent during the corresponding month of last year. Seasonally adjusted month-on-month CPI inflation is recorded at 1.7 percent in October 2013 compared to -0.1 percent in the previous month.
3. Core inflation (trimmed) on year-on-year basis increased to 9.0 percent in October 2013 compared to 7.6 percent in the previous month and 9.7 percent in the corresponding month of last year.
4. On month-on-month basis, the Core inflation (trimmed) increased to 0.8 percent in October 2013 as compared to 0.6 percent in the previous month and 0.7 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 8.4 percent in October 2013 compared to 8.7 percent in the previous month. It was 10.2 percent in the corresponding month of last year.
6. Core NFNE inflation on month-on-month basis increased to 0.9 percent in October 2013 as compared to 0.6 percent in the previous month. A 1.2 percent increase in Core NFNE index was observed in October 2012.
7. WPI inflation on year-on-year basis increased to 9.8 percent in October 2013 when compared to 8.7 percent a month earlier. During October 2012, WPI inflation was recorded at 7.5%.

8. WPI inflation on month-on-month basis is recorded at 1.1 percent in October 2013 as compared to 0.7 percent in the previous month and 0.1 percent in the corresponding month of last year.
9. SPI inflation on year-on-year basis increased to 10.9 percent in October 2013 as compared to 7.9 percent in the previous month. It was 6.2 percent in the corresponding month of last year.
10. SPI inflation on month-on-month basis recorded at 2.3 percent in October 2013 as compared to -0.1 percent in previous month and was -0.5 percent in October 2012.

1.1 A New Measure of Core Inflation

A new method of permanently excluding relatively volatile commodities from CPI basket in Pakistan has been developed by SBP. This is achieved by making use of trimming approach on past data on monthly CPI changes to isolate a Relatively Stable Component of CPI (RSC-CPI) as a new measure of core inflation. This method ensures inclusion of both food and non-food commodities that show persistent price behavior in Pakistan (see technical notes for details). Developments in core inflation measured by RSC- CPI for the month of October 2013 are described below:

- Core inflation based on new measure RSC on year-on-year basis recorded at 8.4 percent in October 2013 compared to 8.5 percent in the previous month and 8.3 percent in the corresponding month of last year.
- Core RSC inflation on month-on-month basis recorded at 0.8 percent in October 2013 compared to 0.5 percent in the previous month and 0.8 percent in the corresponding month of last year.

Monthly CPI, WPI and SPI data is summarized in the following table.

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

Period	CPI Inflation						Core Inflation						WPI Inflation		SPI*** Inflation	
	General		Food		Non-food		NFNE*		Trimmed		RSC**					
	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM
Oct-12	7.7	0.4	5.8	-0.1	9.0	0.7	10.2	1.2	9.7	0.7	8.3	0.8	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	0.2	7.7	-0.4	5.5	0.0
Dec-12	7.9	0.2	7.7	0.0	8.1	0.4	9.8	0.5	9.2	0.3	7.8	0.4	9.6	0.4	7.4	0.3
Jan-13	8.1	1.7	8.1	1.9	8.1	1.5	10.0	1.2	9.9	1.0	7.6	1.1	8.6	1.2	7.1	1.6
Feb-13	7.4	-0.3	7.4	-1.3	7.4	0.4	9.6	0.4	9.2	0.2	7.4	0.4	8.3	0.3	6.8	-0.1
Mar-13	6.6	0.4	6.3	0.5	6.7	0.3	9.0	0.4	8.4	0.2	6.8	0.5	7.9	0.3	6.2	0.6
Apr-13	5.8	1.1	5.5	1.4	6.0	0.9	8.7	1.1	7.6	0.7	6.4	1.0	6.8	0.8	4.3	0.0
May-13	5.1	0.5	6.5	1.1	4.1	0.1	8.1	0.3	6.7	0.3	5.9	0.4	4.1	-0.4	3.8	0.0
Jun-13	5.9	0.7	7.9	1.1	4.4	0.5	7.8	0.4	6.8	0.6	5.5	0.7	5.2	1.0	4.6	2.5
Jul-13	8.3	2.0	9.2	3.0	7.6	1.3	8.2	1.5	7.8	1.2	8.2	1.6	6.5	1.6	9.1	2.1
Aug-13	8.5	1.2	10.3	2.0	7.3	0.6	8.5	0.6	7.9	0.6	8.4	0.6	8.3	2.6	9.0	1.2
Sep-13	7.4	-0.3	7.9	-1.5	7.0	0.6	8.7	0.6	7.6	0.6	8.5	0.5	8.7	0.7	7.9	-0.1
Oct-13	9.1	2.0	9.8	1.7	8.6	2.2	8.4	0.9	9.0	0.8	8.4	0.8	9.8	1.1	10.9	2.3

* NFNE is Non-food non-energy

** Relatively Stable Component of CPI

*** SPI for all income groups combined

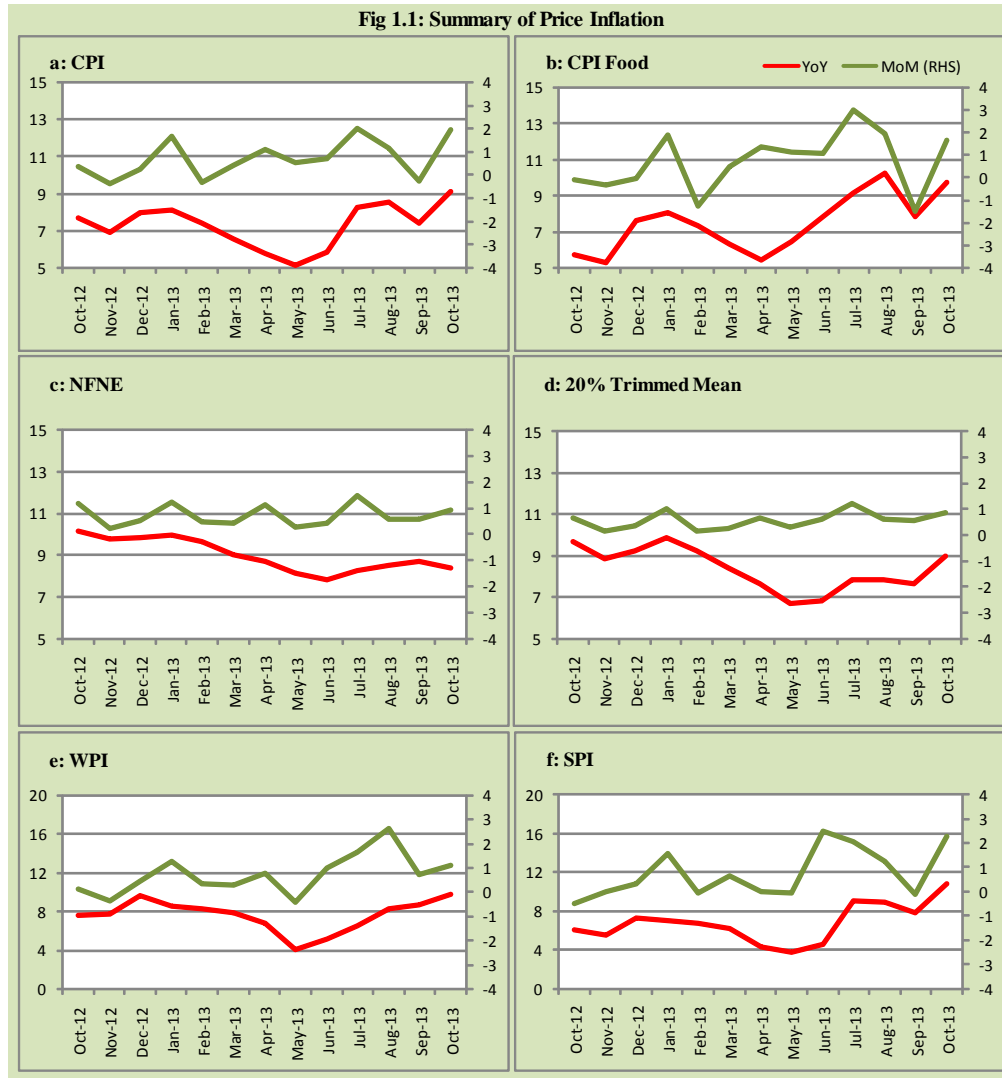
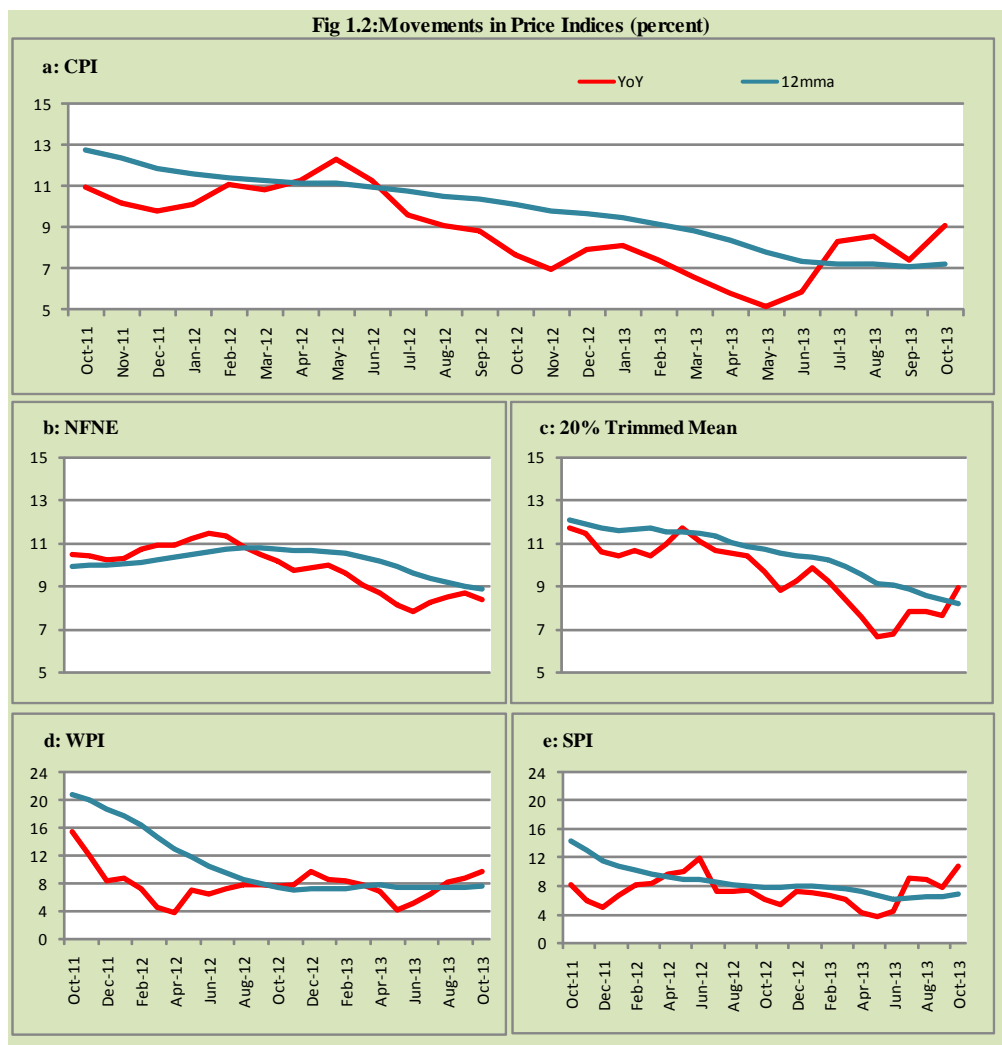


Fig 1.2: Movements in Price Indices (percent)



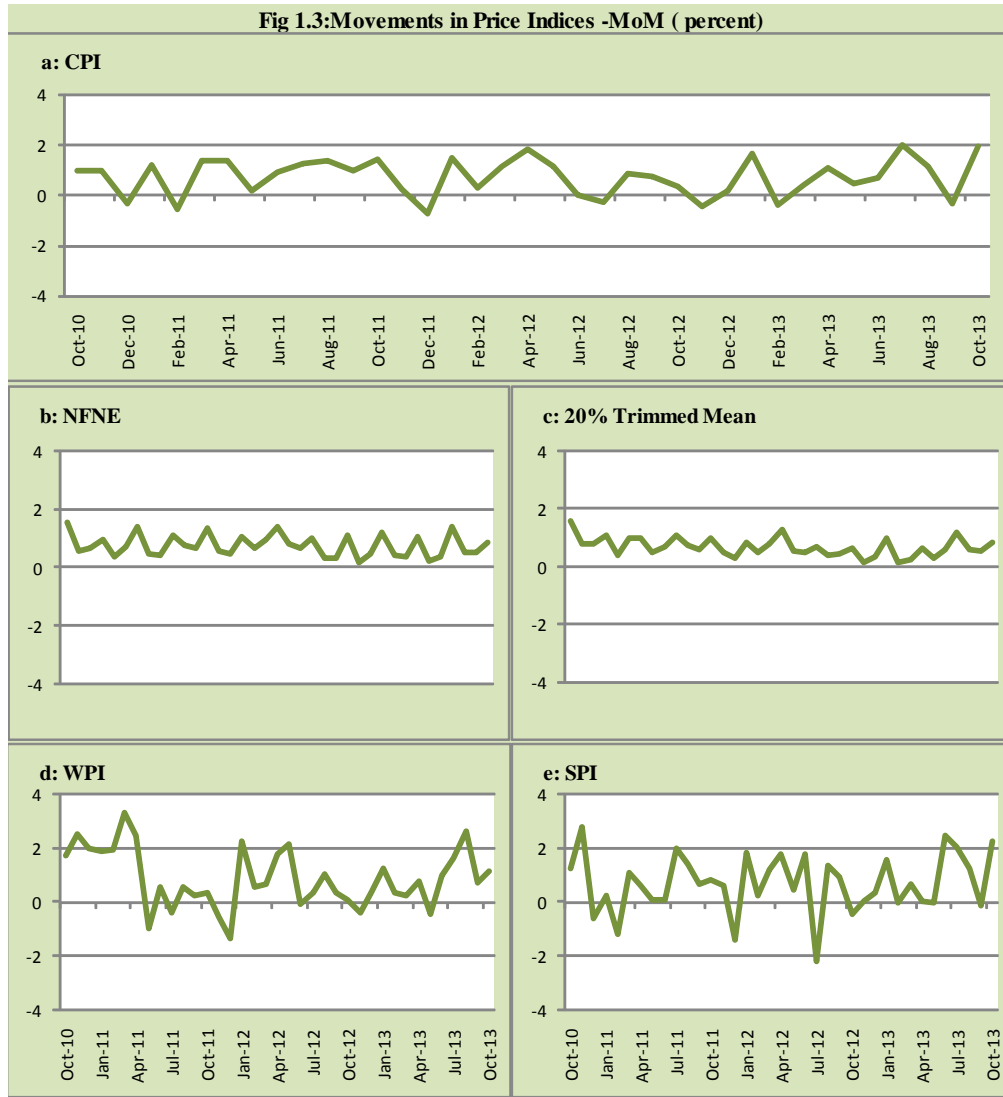
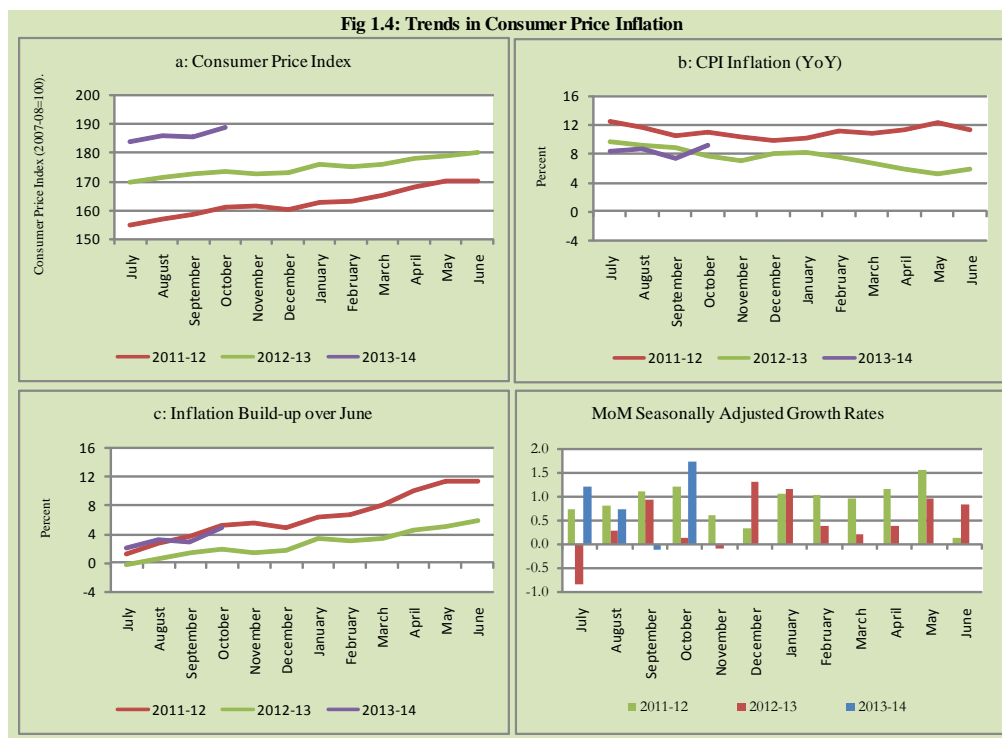


Fig 1.4: Trends in Consumer Price Inflation



2. City wise Inflation

CPI Inflation on year-on-year basis in federal and provincial capitals of Pakistan showed a mixed trend during October 2013. Among these five cities, the lowest inflation was observed in Karachi at 6.7 percent while the highest inflation was observed in Islamabad at 14.3 percent (Table A6 of annexure-A).

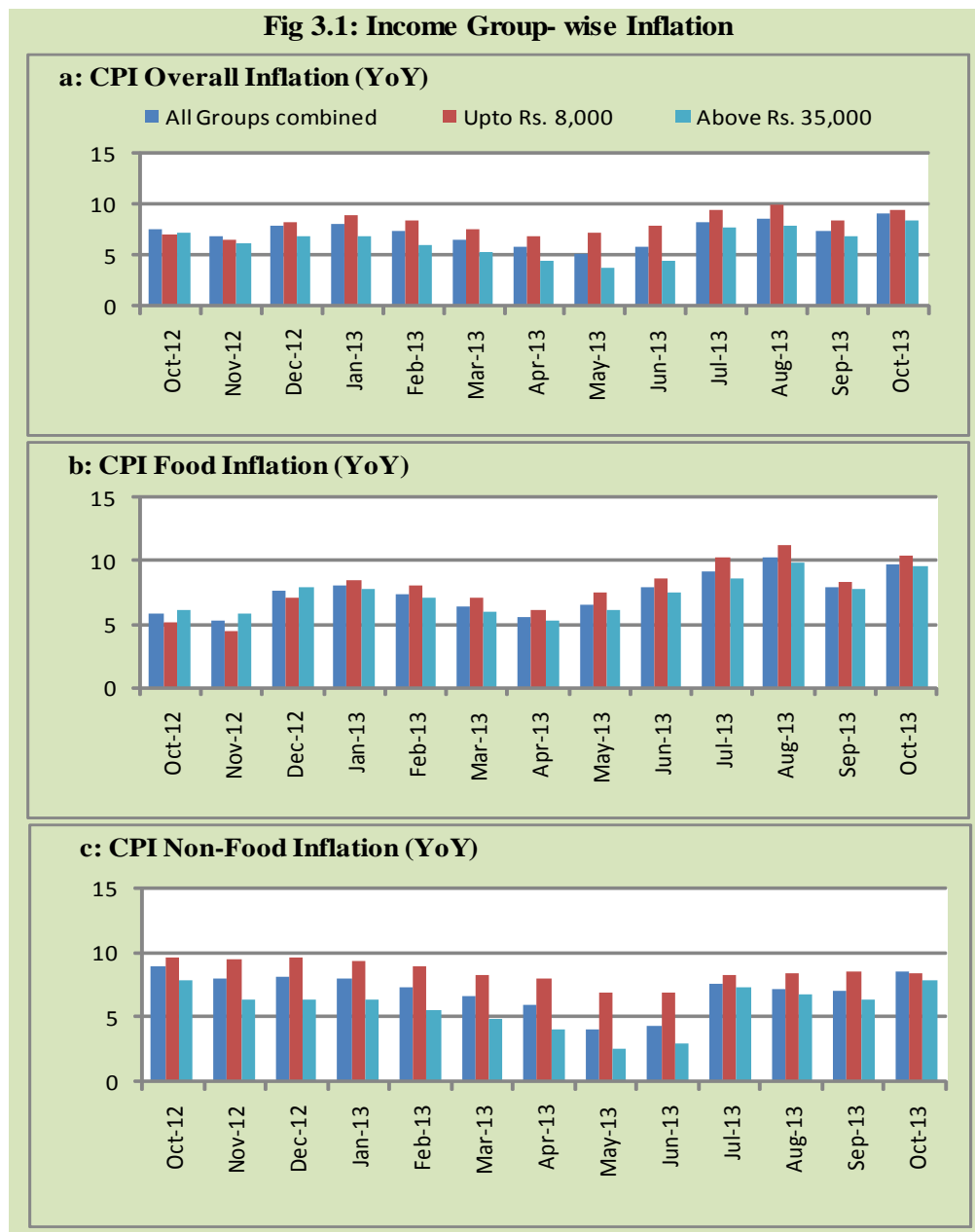
Table 2.1 City-wise Inflation of Selected Cities (percent)						
	Oct-12		Sep-13		Oct-13	
	MoM	YoY	MoM	YoY	MoM	YoY
Overall CPI	0.4	7.7	-0.3	7.4	2.0	9.1
Islamabad	0.0	8.0	-0.6	6.1	7.7	14.3
Karachi	0.6	7.5	-0.3	5.7	1.5	6.7
Lahore	-0.1	7.5	-0.4	5.8	2.6	8.7
Peshawar	0.0	5.3	0.1	10.2	1.2	11.6
Quetta	1.0	8.0	-0.6	8.1	1.7	8.9

3. Income Group wise Inflation

Income group- wise data showed that income group above Rs. 35,000 witnessed lower inflation than the overall inflation in CPI basket during October 2013 for general, food and non-food groups and also lowest among income groups. The lowest income group (Up to Rs. 8, 000) has the highest inflation in food group among the income groups during the month of October 2013 (Table A7 of annexure-A).

Table 3.1 Income Group- wise Inflation (YoY)									
Income Groups	General			Food			Non-food		
	Oct-12	Sep-13	Oct-13	Oct-12	Sep-13	Oct-13	Oct-12	Sep-13	Oct-13
All Groups Combined	7.7	7.4	9.1	5.8	7.9	9.8	9.0	7.0	8.6
Up to Rs. 8,000	7.0	8.5	9.6	5.1	8.3	10.4	9.6	8.6	8.4
Rs. 8,001- 12,000	8.2	8.1	9.1	5.3	8.1	10.1	11.5	8.1	8.0
Rs. 12,001- 18,000	8.1	7.9	9.9	5.6	7.9	9.9	10.8	7.8	10.0
Rs. 18,001- 35,000	6.8	7.7	9.8	5.8	7.8	9.8	7.7	7.6	9.9
Above Rs. 35,000	7.3	6.8	8.4	6.1	7.8	9.5	7.9	6.4	7.9

Fig 3.1: Income Group- wise Inflation



4. Weighted Contribution

The weighted contribution of food group in the overall inflation increased to 45.18 percent during October 2013 from 44.97 percent in September 2013. It was 32.26 percent in October 2012.

The weighted contribution of non-food group showed decrease to touch 54.82 percent in October 2013 from 55.03 percent in September 2013.

Table 4.1 Weighted Contribution to CPI Inflation (YoY)

Period	Food	Clothing & Footwear	Housing, Water, Elect, Gas & Other Fuel	Transport	Education	Others
Oct-12	32.26	13.20	14.34	15.11	4.52	20.57
Nov-12	32.78	14.79	15.75	10.05	4.90	21.74
Dec-12	40.58	14.29	13.76	8.43	4.39	18.56
Jan-13	41.94	13.53	11.88	10.07	4.20	18.38
Feb-13	41.59	15.24	12.70	8.00	3.93	18.53
Mar-13	40.11	14.02	14.27	7.14	4.58	19.89
Apr-13	39.66	15.99	16.52	1.30	4.17	22.36
May-13	52.66	17.82	4.28	-0.34	4.91	20.67
Jun-13	55.58	17.03	3.84	3.09	4.46	15.99
Jul-13	46.72	13.37	20.20	5.27	3.25	11.19
Aug-13	50.74	13.02	19.40	1.98	3.35	11.51
Sep-13	44.97	14.90	22.53	0.16	3.91	13.52
Oct-13	45.18	11.62	26.61	2.68	3.37	10.55

5. Inflation Diffusion Index

Table 5.1 Inflation Diffusion Index - based on MoM change

	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13
General	54.7	39.6	49.6	51.4	37.9	39.1	40.9	44.5	48.4	58.0	53.5	51.4	53.9
Food & Non-Alcoholic Beverages	38.3	19.1	33.0	49.6	15.2	22.5	23.9	34.6	50.4	53.5	39.8	36.3	57.4
Alcoholic Beverages & Tobacco	33.3	83.3	83.3	33.3	0.0	0.0	0.0	33.3	100.0	100.0	16.7	66.7	50.0
Clothing & Footwear	84.7	79.7	89.8	72.9	84.7	59.3	67.8	67.8	55.9	76.3	76.3	83.1	78.0
Housing, Water, Elect, Gas & other Fuels	50.0	22.2	38.9	66.7	22.2	33.3	58.3	16.7	50.0	66.7	41.7	33.3	61.1
Furnishing & Household Equip. Maintenance etc	79.7	69.6	76.8	63.8	53.6	68.1	69.6	78.3	76.8	78.3	85.5	78.3	82.6
Health	23.1	33.3	23.1	30.8	17.9	15.4	23.1	20.5	10.3	17.9	28.2	10.3	17.9
Transport	48.8	11.6	37.2	44.2	46.5	27.9	14.0	27.9	32.6	53.5	39.5	53.5	48.8
Communication	50.0	33.3	50.0	66.7	16.7	8.3	16.7	33.3	16.7	58.3	33.3	16.7	16.7
Recreation & Culture	35.9	17.9	20.5	28.2	25.6	25.6	35.9	30.8	28.2	33.3	41.0	33.3	23.1
Education	43.8	12.5	25.0	6.3	25.0	75.0	25.0	43.8	43.8	50.0	68.8	56.3	25.0
Restaurant & Hotels	100.0	66.7	100.0	83.3	100.0	66.7	50.0	83.3	66.7	100.0	100.0	100.0	83.3
Miscellaneous	80.0	65.7	65.7	51.4	51.4	57.1	54.3	60.0	57.1	60.0	65.7	74.3	40.0
NFNE	62.1	46.4	55.3	52.7	45.9	45.6	49.1	49.4	47.9	58.6	58.6	55.9	51.8

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

Sr. No	Item	Unit	Oct-12		Sep-13		Oct-13	
			YoY	MoM	YoY	MoM	YoY	MoM
1	Wheat	10 Kg	10.08	0.20	24.31	2.93	25.26	0.97
2	Wheat Flour Bag	10 Kg	10.47	0.16	22.67	2.67	23.48	0.82
3	Rice Basmati Sup. Qlty.	Kg	19.67	0.64	17.55	0.74	17.73	0.79
4	Pulse Masoor (Washed)	Kg	-7.32	-0.58	10.16	1.16	11.50	0.63
5	Pulse Moong (Washed)	Kg	-17.05	-1.51	4.60	-1.23	5.87	-0.32
6	Pulse Mash (Washed)	Kg	-11.16	-0.31	-3.45	0.15	-3.23	-0.09
7	Pulse Gram	Kg	46.47	-0.81	-31.06	-3.20	-31.25	-1.08
8	Vegetable Ghee (Loose)	Kg	0.11	-1.39	-5.04	-0.49	-3.36	0.36
9	Sugar Refined	Kg	-23.90	1.28	0.72	-0.33	2.59	3.16
10	Milk Fresh (Unboiled)	Ltr	13.02	0.11	7.05	0.00	7.48	0.51
11	Tea- Tapal Danedar	200 Gm	-1.74	0.00	37.40	0.85	38.10	0.51
12	Beef With Bone Av. Qlty.	Kg	9.03	0.54	3.61	0.93	3.36	0.30
13	Mutton Av. Qlty.	Kg	9.47	0.19	6.89	0.74	7.07	0.37
14	Chicken Farm Broiler (Live)	Kg	-13.85	-5.80	12.56	-24.50	19.71	0.18
15	Eggs Farm	Doz	28.68	17.32	9.42	13.20	-7.65	-0.98
16	Potatoes	Kg	-1.13	-0.86	14.95	4.53	44.40	24.54
17	Onion	Kg	3.45	9.53	26.13	-15.63	31.15	13.88
18	Tomatoes	Kg	-30.04	-7.48	29.36	-23.60	50.80	7.85
19	Ginger	Kg	-4.26	28.00	57.97	12.24	33.77	8.39
20	Garlic	Kg	-13.11	1.39	12.10	0.03	11.55	0.89

7. Global Commodity Prices

Table 7.1 Changes in Major Global Indices (percent)

Item/ Group	Oct-12		Sep-13		Oct-13	
	YoY	MoM	YoY	MoM	YoY	MoM
Overall	0.3	-2.0	-1.1	-0.4	-0.6	-1.4
Food	8.2	-1.7	-7.8	-3.7	-5.9	0.3
Metals	-8.7	1.9	-1.1	-1.7	-2.4	0.6
Energy	1.0	-2.8	0.7	0.6	1.0	-2.5
Agricultural Raw Material	-5.9	-0.5	1.1	0.3	4.0	2.3
Cotton	-25.9	-2.6	7.1	-2.8	9.0	-0.8

Source: IMF

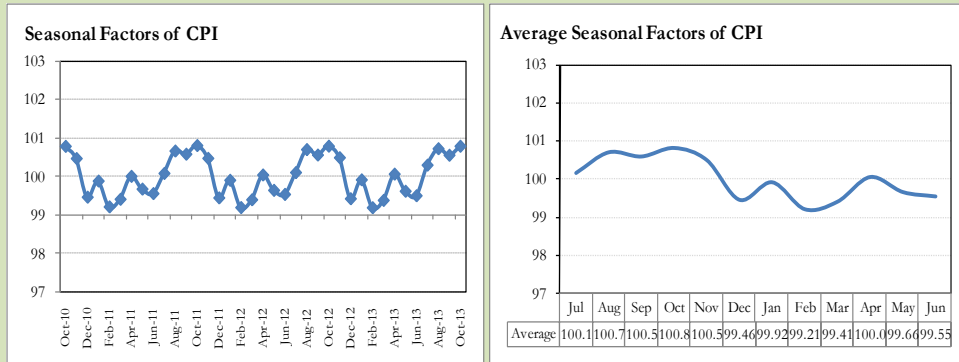
8. Seasonal Adjustment in CPI

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

The changes in consumer prices are normally reported in terms of year-on-year and month-on-month basis. Seasonal adjustment is particularly useful for analyzing month-on-month changes. The monthly data series of Consumer Price Index (CPI) from July 2008 to October 2013 has been used for seasonal adjustment analysis. The seasonal analysis is carried out without taking trading-day or Islamic calendar month's effects.

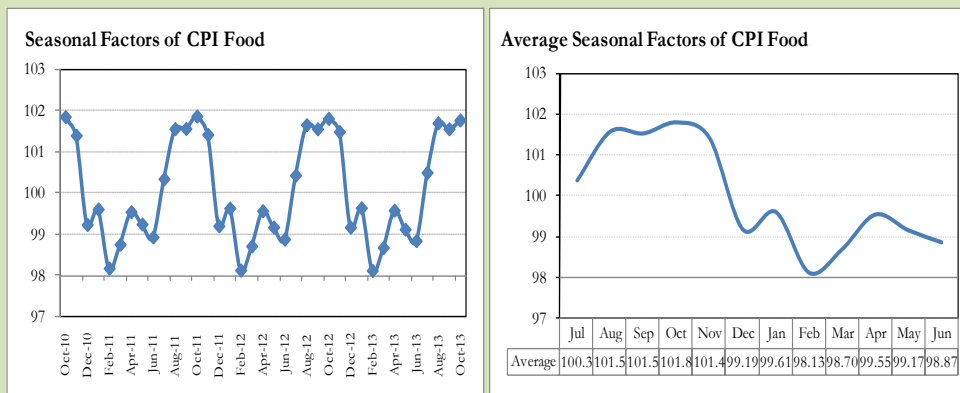
Figure 8.1 reveals that seasonality in CPI has been increasing over the period of last four years. Average seasonal factors reveal strong seasonality during the calendar year. There is an upward seasonality during the months from July to November & April and downward seasonality in the remaining months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

Fig. 8.1 Seasonal Factors of CPI



Note: Data Available in Annex Table 16.

Fig. 8.2 Seasonal Factors of CPI Food



Note: Data Available in Annex Table 17.

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

Fig. 8.3 Seasonal Plots of CPI

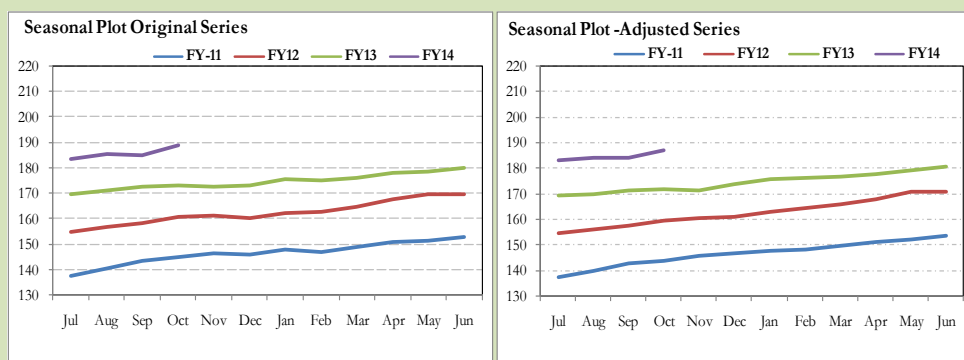
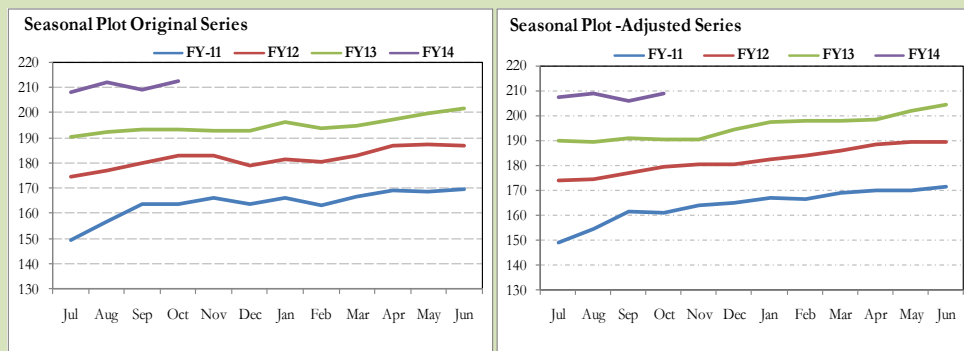


Fig. 8.4 Seasonal Plots of CPI (Food)



Seasonally adjusted CPI for October 2013 stood at 187.30 against 188.82 in original series showing a decrease of 1.52 on account of adjustment of upward seasonality in October 2013.

Seasonally adjusted CPI food group for October 2013 stood at 208.95 against 212.61 in original series showing a decrease of 3.66 on account of adjustment of upward seasonality in October 2013.

Month-on-month change of seasonally adjusted CPI series stood at 1.73% reflecting increase during October 2013 over September 2013 and an increase of 1.97% in original series.

Month-on-month change of seasonally adjusted CPI food group series stood at 1.47% reflecting increase during October 2013 over September 2013 and an increase of 1.68% 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 October 2013 (corresponding to the seasonally adjusted month-on-month rate) is 22.81 percent.

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

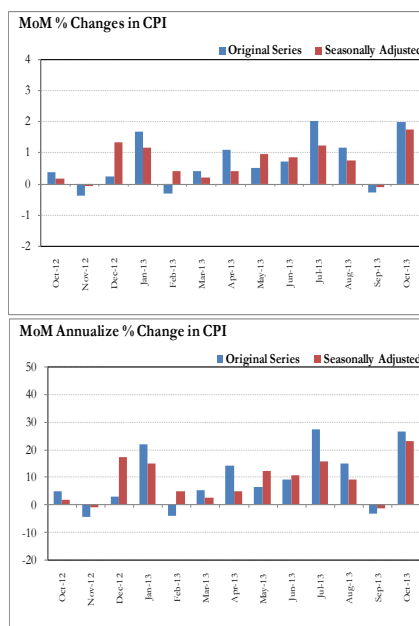
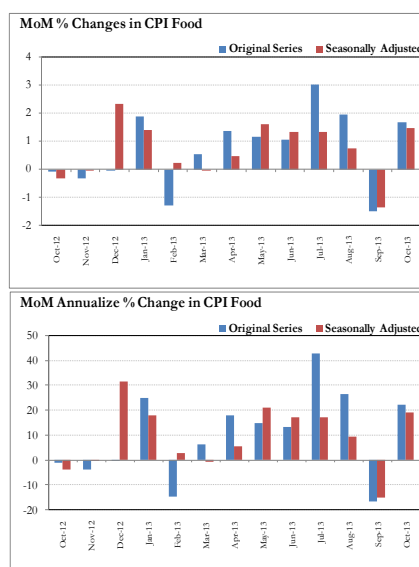


Fig. 8.6 Month-on-Month Percent Changes in CPI Food



Annexure A

Table A1: CPI Inflation by Groups (percent)							
	Weight	MoM change			YoY change		
		Oct-12	Sep-13	Oct-13	Oct-12	Sep-13	Oct-13
I. Food Group	37.5	-0.1	-1.5	1.7	5.8	7.9	9.8
Food & Non-Alcoholic Beverages	34.8	-0.1	-1.7	1.8	5.2	7.5	9.5
Alcoholic Beverages & Tobacco	1.4	0.0	0.2	0.2	17.9	14.5	14.6
Restaurant & Hotels	1.2	1.2	2.5	0.9	10.8	12.0	11.7
II. Non-Food Group	62.5	0.7	0.6	2.2	9.0	7.0	8.6
Clothing & Footwear	7.6	1.1	0.6	0.5	14.4	14.9	14.2
Housing, Water, Elect, Gas & other Fuels	29.4	1.3	0.1	4.1	4.2	6.6	9.5
Furnishing & Household Equip. Maintenance etc	4.2	0.8	1.1	0.7	14.7	8.9	8.8
Health	2.2	0.8	1.2	0.6	14.7	6.7	6.5
Transport	7.2	-1.6	2.1	1.3	15.6	0.1	3.1
Communication	3.2	0.1	0.0	0.0	0.3	4.9	4.9
Recreation & Culture	2.0	0.4	0.3	0.2	18.3	10.1	9.8
Education	3.9	0.4	0.3	0.9	10.1	8.2	8.7
Miscellaneous	2.8	1.7	1.4	0.7	12.7	5.7	4.7
Headline	100	0.4	-0.3	2.0	7.7	7.4	9.1

Table A2: Distribution of Price changes (YoY) of CPI basket											
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)	
		Oct-12	Oct-13	Oct-12	Oct-13	Oct-12	Oct-13	Oct-12	Oct-13	Oct-12	Oct-13
I. Food Group	9.8	130	130	36	24	22	13	29	38	43	55
Food & Non-Alcoholic Beverages	9.5	118	118	36	24	21	13	25	35	36	46
Alcoholic Beverages & Tobacco	14.6	6	6	0	0	1	0	1	2	4	4
Restaurant & Hotels	11.7	6	6	0	0	0	0	3	1	3	5
II. Non-Food Group	8.6	348	348	42	56	38	59	68	121	200	112
Clothing & Footwear	14.2	59	59	4	3	1	1	7	15	47	40
Housing, Water, Elect, Gas & other Fuels	9.5	36	36	7	2	3	3	10	22	16	9
Furnishing & Household Equip. Maintenance etc	8.8	69	69	3	1	5	16	17	34	44	18
Health	6.5	39	39	13	20	4	6	4	6	18	7
Transport	3.1	43	43	1	16	4	6	7	19	31	2
Communication	4.9	12	12	5	2	2	2	2	4	3	4
Recreation & Culture	9.8	39	39	7	8	8	14	8	4	16	13
Education	8.7	16	16	2	1	5	5	4	5	5	5
Miscellaneous	4.7	35	35	0	3	6	6	9	12	20	14
Overall	9.1	478	478	78	80	60	72	97	159	243	167

Note: Prices of 9 seasonal items were not reported during the month.

Table A3: Top and Bottom 15 Contributors to CPI Inflation (YoY) in October 2013					
Top 15 Contributors		Weights	YoY Change		Weighted Contribution
Items/ Contributors			Oct-12	Oct-13	
Ranked by Weighted Contribution					
1	House Rent	21.81	6.27	7.86	15.24
2	Wheat Flour	4.16	9.62	24.32	11.48
3	Electricity	4.40	16.39	15.82	8.69
4	Milk Fresh	6.68	13.09	7.29	6.66
5	Fresh Vegetable	1.75	-8.24	16.75	4.06
6	Education	3.94	10.06	8.70	3.37
7	Tea	0.84	1.47	24.93	2.70
8	Footwear	1.55	16.08	18.52	2.61
9	Potatoes	0.45	-1.13	44.41	2.57
10	Cotton Cloth	1.73	7.13	14.61	2.54
11	Onion	0.51	3.45	31.16	2.48
12	Cigarette	1.39	18.03	14.72	2.48
13	Chicken	1.36	-13.85	19.71	2.46
14	Tomatoes	0.42	-30.04	50.79	2.10
15	Rice	1.58	12.95	11.81	2.04
Total		52.58			71.49
Bottom 15 Contributors					
1	Spices	0.54	7.29	-18.10	-1.64
2	Pulse Gram	0.24	46.46	-31.25	-1.12
3	Vegetable Ghee	2.07	4.03	-4.20	-0.90
4	Besan	0.15	42.05	-27.56	-0.62
5	Gram Whole	0.16	14.63	-23.33	-0.55
6	Egg	0.46	28.67	-7.65	-0.48
7	Cooking Oil	1.75	13.79	-2.53	-0.47
8	Personal Equipments	0.84	15.46	-1.36	-0.19
9	Pulse Mash (Washed)	0.21	-11.16	-3.24	-0.08
10	Mustard Oil	0.10	7.25	-2.48	-0.02
11	Medical Equipment	0.01	14.96	6.54	0.01
12	Kerosene Oil	0.01	19.17	7.15	0.01
13	Motor Vehicle Tax	0.11	25.73	1.13	0.01
14	Blades	0.03	9.85	5.04	0.02
15	Betel Leaves & Nuts	0.02	7.53	7.99	0.02
Total		6.70			-6.00

Table A3.1: Top and Bottom 15 Contributors to CPI Inflation (MoM) in October 2013

<u>Top 15 Contributors</u>		<u>MoM Change</u>		Weighted Contribution	
Items/ Contributors	Weights	Sep-13	Oct-13		
Ranked by Weighted Contribution					
1	Electricity	4.40	0.00	15.82	37.54
2	House Rent	21.81	0.00	1.59	14.08
3	Fresh Vegetable	1.75	4.79	10.10	11.22
4	Potatoes	0.45	4.53	24.54	7.11
5	Onion	0.51	-15.63	13.89	5.50
6	Motor Fuel	3.03	2.93	2.58	4.08
7	Milk Fresh	6.68	0.00	0.49	2.07
8	Wheat Flour	4.16	2.80	0.79	1.99
9	Tomatoes	0.42	-23.60	7.85	1.96
10	Sugar	1.04	-0.33	3.16	1.76
11	Education	3.94	0.28	0.85	1.54
12	Fresh Fruits	1.86	-15.48	1.19	1.18
13	Personal Care	1.49	0.68	1.34	1.03
14	Ready Made Food	1.23	2.48	0.94	0.71
15	Transport Services	2.70	1.71	0.41	0.62
Total		55.49			92.41
<u>Bottom 15 Contributors</u>					
1	Personal Equipments	0.84	2.42	-0.64	-0.38
2	Egg	0.46	13.20	-0.98	-0.25
3	Tea	0.84	0.65	-0.30	-0.18
4	Pulse Gram	0.24	-3.20	-1.08	-0.12
5	Gram Whole	0.16	-2.29	-1.30	-0.10
6	Besan	0.15	-1.19	-0.87	-0.06
7	Pulse Moong	0.23	-1.22	-0.32	-0.05
8	Pulse Mash (Washed)	0.21	0.15	-0.10	-0.01
9	Mustard Oil	0.10	0.00	-0.20	-0.01
10	Spices	0.54	-0.72	-0.02	-0.01
11	Motor Vehicle Tax	0.11	0.00	0.00	0.00
12	News Papers	0.19	0.00	0.00	0.00
13	Gas	1.58	0.00	0.00	0.00
14	Postal Services	0.07	0.00	0.00	0.00
15	Medical Equipment	0.01	1.41	0.00	0.00
Total		5.72			-1.16

Table A3.2: Top Fifteen Contributors to CPI Inflation (YoY) in October 2013					
Items/ Contributors		Weights	YoY Change		Weighted Contribution
			Oct-12	Oct-13	
A. Ranked by Percentage Change					
1	Tomatoes	0.42	-30.04	50.79	2.10
2	Potatoes	0.45	-1.13	44.41	2.57
3	Onion	0.51	3.45	31.16	2.48
4	Wheat	0.35	10.08	25.26	0.95
5	Tea	0.84	1.47	24.93	2.70
6	Postal Services	0.07	5.98	24.87	0.18
7	Wheat Flour	4.16	9.62	24.32	11.48
8	Gur	0.02	-21.58	22.84	0.07
9	Chicken	1.36	-13.85	19.71	2.46
10	Footwear	1.55	16.08	18.52	2.61
11	Wheat Product	0.10	6.10	18.24	0.19
12	Cosmetics	0.39	8.42	17.01	0.62
13	Fresh Vegetable	1.75	-8.24	16.75	4.06
14	Woolen Readymade Garments	0.40	19.74	16.07	0.68
15	Text Books	0.57	40.00	16.01	1.34
Total		12.92			34.50
B. Ranked by Weights					
1	House Rent	21.81	6.27	7.86	15.24
2	Milk Fresh	6.68	13.09	7.29	6.66
3	Electricity	4.40	16.39	15.82	8.69
4	Wheat Flour	4.16	9.62	24.32	11.48
5	Education	3.94	10.06	8.70	3.37
6	Communication & Apparatus	3.15	0.09	4.26	1.05
7	Motor Fuel	3.03	18.76	1.02	0.38
8	Transport Services	2.70	13.25	3.70	1.27
9	Meat	2.43	9.17	4.58	1.55
10	Vegetable Ghee	2.07	4.03	-4.20	-0.90
11	Fresh Fruits	1.86	-0.57	3.37	0.76
12	Fresh Vegetable	1.75	-8.24	16.75	4.06
13	Cooking Oil	1.75	13.79	-2.53	-0.47
14	Cotton Cloth	1.73	7.13	14.61	2.54
15	Rice	1.58	12.95	11.81	2.04
Total		63.07			57.73
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 9.1 percent in October, 2013.					

Table A3.3: Top Ten Contributors to CPI Food Inflation (YoY) in October 2013

Table 1: Top 10 Contributors to CPI Food Inflation (2012) in October 2013					
Items/ Contributors		Weights	YoY Change		Weighted Contribution
			Oct-12	Oct-13	
A. Ranked by Weighted Contribution					
1	Wheat Flour	4.16	9.62	24.32	11.48
2	Milk Fresh	6.68	13.09	7.29	6.66
3	Fresh Vegetable	1.75	-8.24	16.75	4.06
4	Tea	0.84	1.47	24.93	2.70
5	Potatoes	0.45	-1.13	44.41	2.57
6	Onion	0.51	3.45	31.16	2.48
7	Cigarette	1.39	18.03	14.72	2.48
8	Chicken	1.36	-13.85	19.71	2.46
9	Tomatoes	0.42	-30.04	50.79	2.10
10	Rice	1.58	12.95	11.81	2.04
Total		19.14			39.04
B. Ranked by Percentage Change					
1	Tomatoes	0.42	-30.04	50.79	2.10
2	Potatoes	0.45	-1.13	44.41	2.57
3	Onion	0.51	3.45	31.16	2.48
4	Wheat	0.35	10.08	25.26	0.95
5	Tea	0.84	1.47	24.93	2.70
6	Wheat Flour	4.16	9.62	24.32	11.48
7	Gur	0.02	-21.58	22.84	0.07
8	Chicken	1.36	-13.85	19.71	2.46
9	Wheat Product	0.10	6.10	18.24	0.19
10	Fresh Vegetable	1.75	-8.24	16.75	4.06
Total		9.95			29.07
C. Ranked by Weights					
1	Milk Fresh	6.68	13.09	7.29	6.66
2	Wheat Flour	4.16	9.62	24.32	11.48
3	Meat	2.43	9.17	4.58	1.55
4	Vegetable Ghee	2.07	4.03	-4.20	-0.90
5	Fresh Fruits	1.86	-0.57	3.37	0.76
6	Fresh Vegetable	1.75	-8.24	16.75	4.06
7	Cooking Oil	1.75	13.79	-2.53	-0.47
8	Rice	1.58	12.95	11.81	2.04
9	Cigarette	1.39	18.03	14.72	2.48
10	Chicken	1.36	-13.85	19.71	2.46
Total		25.05			30.12
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 9.8 percent in October, 2013.					

Table A3.4: Top Ten Contributors to CPI Non-food Inflation (YoY) in October 2013					
Items/ Contributors		Weights	YoY Change		Weighted Contribution
			Oct-12	Oct-13	
A. Ranked by Weighted Contribution					
1	House Rent	21.81	6.27	7.86	15.24
2	Electricity	4.40	16.39	15.82	8.69
3	Education	3.94	10.06	8.70	3.37
4	Footwear	1.55	16.08	18.52	2.61
5	Cotton Cloth	1.73	7.13	14.61	2.54
6	Tailoring	0.88	16.69	15.29	1.74
7	Text Books	0.57	40.00	16.01	1.34
8	Transport Services	2.70	13.25	3.70	1.27
9	Ready Made Garment	0.97	17.48	11.94	1.27
10	Personal Care	1.49	11.61	7.09	1.20
Total		40.06			39.28
B. Ranked by Percentage Change					
1	Postal Services	0.07	5.98	24.87	0.18
2	Footwear	1.55	16.08	18.52	2.61
3	Cosmetics	0.39	8.42	17.01	0.62
4	Woolen Readymade Garments	0.40	19.74	16.07	0.68
5	Text Books	0.57	40.00	16.01	1.34
6	Electricity	4.40	16.39	15.82	8.69
7	Tailoring	0.88	16.69	15.29	1.74
8	Cotton Cloth	1.73	7.13	14.61	2.54
9	Dopatta	0.44	19.53	13.19	0.69
10	Sewing Needle & Dry Cell	0.15	11.50	13.03	0.19
Total		10.57			19.28
C. Ranked by Weights					
1	House Rent	21.81	6.27	7.86	15.24
2	Electricity	4.40	16.39	15.82	8.69
3	Education	3.94	10.06	8.70	3.37
4	Communication & Apparatus	3.15	0.09	4.26	1.05
5	Motor Fuel	3.03	18.76	1.02	0.38
6	Transport Services	2.70	13.25	3.70	1.27
7	Cotton Cloth	1.73	7.13	14.61	2.54
8	Gas	1.58	-42.09	7.05	0.95
9	Footwear	1.55	16.08	18.52	2.61
10	Personal Care	1.49	11.61	7.09	1.20
Total		45.39			37.31
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 8.6 percent in October, 2013.					

Table A4: Distribution of Price Changes (YoY) - Selected CPI Items: October 2013

Groups	Decrease or no change	Subdued increase (Up to 5%)	Moderate increase (5 to 10%)	More than 10% increase
Food & Non-Alcoholic Beverages	Chillies Powd.National 200 Gm, Pulse Gram, Besan Av. Qlty., Gram Whole Yellow Av.Qlty, Gram Whole Black Av Qlty	Spinach, Squash-Mitchelles, Powder Milk Nido 400Gm., Beef with Bone Av.Qlty., Coconut Dry Av.Qlty., Sugar Refined, Saunf	Arvi, Fish-Rahu Medium Size, Rice Basmati Broken Avg. Qlty, Mineral Water Nestle 1.5 Litre, Rusk (Papay), Patties (Vegetables)	Chillies Green, Tomatoes, Ice Cream Walls, Potatoes, Tapal Danedar Tea 200 Gm, Ginger, Onion, Tea Lipton Yellow Label 200 Gm, Radish, Cauliflower, Wheat, Wheat Flour Fine/Superior, Wheat Flour Avg. Qlty
Alcoholic Beverages & Tobacco			Betel Leaves, Betel Nuts	Cigarettes K-20,S, Cigarettes Gold Leaf 20,S, Cigarettes Capstan 20,S, Cigarettes Morven Gold 20.S
Clothing & Footwear	Gents Spoung Chappal Bata, Ladies Spoung Chappal Bata, Ladies Sandal Bata	Heavy Wt Suiting Law.Pur Av. Qlty	Foot Wear Local (Female), Azarband Cotton Avg. Qlty, Pullover Gents Oxford/Bon, Vest/Shameez (Women) Avg. Qlty, Pant Cloth Wash & Wear Av.Qlty	Gents Shoe, Art 1109 Servis, Gents Shoes Paul Bata, Sports Shoes, Secondhand Winter Jacket, Shirting Av.Qlty., Child Shoe Power Lite Bata, Secondhand Sweater For Men, Tailoring Suit (Female), Georgette Av.Qlty, Gents Sandal Bata, Shoe Polish Charges Avg
Housing, Water, Elect, Gas & other Fuels	Elect. Charges Upto 50 Units, Elect. Charges 01 - 100 Units	Bricks (New) 1st Class, Iron Bar (M.S. Bar) 1/2", Bajree	Firewood Whole, Cement (Local), Mason (Raj) Wage Rate, Water Charges Per House, Electrician Wage Rate(P/Day)	Elect. Charges 301 - 1000 Units, Elect. Charges 101 - 300 Units, Electrician Wage Rate (P/Pnt), Elect. Charges Overall/ Combined, Elect. Charges Above 1000 Units, Timber Shesham Log, Plumber Wage Rate
Furnishing & Household Equip. Maintenance etc	Air conditioner 1.5 Ton PEL	Tube Light Philips 40 Watt, Gizer Large Size 30 Gallon, Mattress Single (4"Thick), Table Spoon S. Steel Sup. Qlty, Harpic	Single Bed without Foam, Table Shesham Wood, Dari Cotton (6'X2 1/2'), Household Servant Female (Part Time)	Match Box (Small), Boot Polish Cherry/Kiwi 50 MI, Washing Powder (Wheel/ Bonus), Cleanser Powder Vim 1000 Gms, Finis 500 MI, Robin Blue (35 Gms), Surf Excel 400 Gms Poly Bag, Bed Sheet Single Bed Sup. Qlty
Health	Calcium Syrup Sandoz, Burnol Cream 30 Gm, Amoxil Capsule 250 Mg., Polyfax Eye Ointment, Daonil Tab. 5 Mg.	Dettol (Medium), Sugar Test (Random/Fasting), Glycerin Small Bottle, ECG Charges, Gripe-Water Woodward's, Cac. 1000 Tab	X-Ray (Chest) Charges, Cotton Bandage 2" - 4", Blood Test (Cp) Charges, Urine Test (Dr) Charges, Thermometer China	Galxos-D (450 Gm), Jouhar Joshanda, Saniplast (1 Putty), Sancos Syrup (50 MI.), Doctor (MBBS) Clinic Fee, Trisil Tab., Phenergan Syrup 120 MI.
Transport	Train Fare A/C Slp. 101-500, Train Fare A/C Slp > 500K, Train Fare A/C Slp. 1-100, Train Fare Eco. 1-100 Km., CNG	Motorcycle Yamaha 100 CC, Suzuki Fare Maximum within City, Car Toyota 1300 CC, Full Tonga Charges, Motorcycle Honda CD-70	Petrol Super, Car Service Charges, Minibus Fare Min. Within City, Bus Fare Outside City (A/C), Motor Cycle Service Charges	Bus Fare Outside City (Non A/C), Cycle Overhauling Charges
Communication	Postal Envelope Domestic, Mobile Cell Charges	Postal Envelope For Saudi Arabia, Mobile Set Nokia/Sony/Ericsson Av.Qlty	Telephone Charges Local Call, Telephone Charges Outside City, Internet Charges, Telephone Set Av. Qlty	U.M.S. Reg Charges Min., T.C.S. Ch. Min. within Zone, Fax Charges (Local), Postal Registration Charges
Recreation & Culture	English Book BA/B.Sc, T.V. 20" Colored Sony, Tape Recorder Cassette (Blank), V.C.P. Panasonic/LG/National, TV License Fee Domestic	Maths Book Ist. Year (T.B. Board), Fountain Pen Hero/Wings/China, Pencil Goldfish/Deer, Personnel Computer (Branded), Video Cassette Blank. Tdk/Sony	Urdu Book Ist Year/ Inter, Exercise Book Lined 80/10, Ball Pen (Local), Paper Fool Scape (27"X17")	Maths Book Calss V (T.B.Board), Urdu Book Class V (T.B.Board), English Book Class IX or X, Daily "Jang", Daily "Nawa-e-Waqt", Cinema Non-A/C High Class, Cinema A/C High Class, Pen Ink Dollor 57 MI Bottle, Pakistan Studies Book BA/B.Sc, Eng. Book Ist. Yr Complete Set
Education	Coaching Charges For Class XI/ XII Commerce Group	Pvt School Fee Eng. Med (Class-X), Govt. Engg. Coll. Fee Ist Year, I.T. Tuition Fees	Pvt School Fee Eng. Med (Class-V), Coaching Fee For Class IX/ X, Pvt School Fee Eng. Med (Class-I)	Govt. University Fee MSc/ MA, Govt. College Fee Ist. Year, Pvt Eng. College Fee (Ist Year), Pvt Med. College Fee MBBS(Ist Year), Govt. College Fee 4th Year
Restaurant & Hotels			Chicken Biryani Full/Double	Cooked Beef (Av. Hotel), Bread Tandoori St. Size, Cooked Mutton (Av. Hotel), Tea Prepared (Ordinary), Cooked Dal (Av. Hotel)
Miscellaneous	Toothpaste Med Size Colgate 70Gms, Silver Tezabi 24 Ct, Gold Tezabi 24 Ct	Toilet Soap Safeguard Bath Size, Talc Powder Viceroy/ Black Cat, Blade 7-O-Clock Steel (5)	Lipstick S. Miss/Medora, Hair Removing Cream (EU-Cream), Disposable Razor Gillette-II, Toothbrush Shield	Perfume Med. Size Medora/Broche, Toilet Soap Lux 95 Gms, Purse Ladies (Leather) Av. Qlty, Artificial Jewellery Set, Shaving Charges, Suitcase Rexin (24"X16"X6")

Table A5: City- wise CPI Inflation by Income Groups, October 2013

	Up to Rs: 8000						Rs 8001- 12000					
	General		Food		Non-Food		General		Food		Non-Food	
	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY
1 Rawalpindi	1.9	9.8	2.1	10.1	1.6	9.4	2.0	10.1	2.3	10.2	1.7	10.0
2 Islamabad	5.9	14.6	2.3	12.0	10.9	18.0	5.8	14.2	2.0	12.0	10.5	16.8
3 Lahore	2.4	9.3	3.4	11.6	0.9	5.9	2.5	9.4	3.5	12.0	1.1	6.2
4 Gujranwala	1.6	7.7	1.8	7.7	1.5	7.7	1.6	7.7	1.6	7.5	1.6	7.8
5 Sialkot	2.1	8.6	3.0	8.1	0.8	9.2	2.0	8.4	2.8	7.7	1.0	9.2
6 Faisalabad	2.8	12.7	1.9	13.0	4.0	12.2	2.8	12.3	1.7	12.8	4.1	11.8
7 Multan	2.1	9.2	2.2	10.5	1.8	7.5	2.1	8.9	2.3	10.1	1.9	7.6
8 Sargodha	3.2	10.6	4.1	11.8	2.2	9.3	3.0	10.3	3.8	11.3	2.3	9.2
9 Bahawalpur	2.9	9.4	4.4	10.2	1.3	8.5	2.8	9.0	4.0	9.4	1.5	8.6
10 Karachi	1.5	7.5	1.8	10.1	1.1	4.0	1.5	7.1	1.8	9.3	1.2	4.5
11 Hyderabad	1.3	8.1	1.3	10.0	1.2	5.4	1.3	7.7	1.2	9.4	1.3	5.7
12 Sukkur	1.4	7.4	1.8	6.8	0.9	8.3	1.3	7.4	1.6	6.6	1.1	8.3
13 Larkana	2.2	13.1	2.7	12.4	1.6	13.9	2.3	13.3	2.9	13.1	1.7	13.4
14 Peshawar	1.3	11.9	1.5	10.5	1.0	13.6	1.2	11.5	1.3	10.2	1.1	13.0
15 Bannu	0.5	8.7	0.2	10.2	0.9	6.8	0.6	8.6	0.2	10.1	1.1	7.0
16 Quetta	1.8	9.7	1.3	9.8	2.4	9.5	1.8	9.2	1.2	9.2	2.4	9.2
17 Khuzdar	0.4	6.1	0.0	7.3	0.9	4.8	0.5	6.3	0.0	7.0	1.1	5.5
	Rs 12001-18000						Rs 18001-35000					
	General		Food		Non-Food		General		Food		Non-Food	
	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY
1 Rawalpindi	1.8	10.4	2.4	10.6	1.3	10.2	2.3	10.3	2.5	10.7	2.1	10.0
2 Islamabad	6.7	15.3	2.0	12.2	11.7	18.6	8.9	16.9	2.3	12.3	15.0	21.1
3 Lahore	2.3	9.3	3.6	12.0	0.9	6.4	2.9	9.4	3.7	12.1	2.1	6.8
4 Gujranwala	1.3	7.3	1.4	7.1	1.2	7.4	1.7	7.3	1.1	6.9	2.2	7.7
5 Sialkot	1.8	8.7	2.9	8.5	0.6	9.0	2.3	8.8	2.8	8.2	1.9	9.2
6 Faisalabad	2.8	12.3	1.6	12.5	4.0	12.1	3.4	11.8	1.4	12.3	5.3	11.3
7 Multan	1.9	9.0	2.2	10.0	1.5	7.9	2.6	9.1	2.4	10.1	2.7	8.2
8 Sargodha	2.9	10.1	3.9	11.2	2.0	9.0	3.2	9.8	3.9	11.0	2.8	8.9
9 Bahawalpur	2.5	9.1	4.0	9.4	1.2	8.8	2.8	8.3	3.9	9.0	2.0	7.9
10 Karachi	1.3	7.0	1.8	9.2	0.8	4.6	1.7	7.1	1.6	9.1	1.8	5.3
11 Hyderabad	1.0	7.4	1.1	9.1	0.9	5.6	1.5	7.4	0.9	8.8	2.1	6.1
12 Sukkur	1.0	7.0	1.3	6.1	0.7	7.9	1.5	6.6	1.1	5.3	1.8	7.8
13 Larkana	2.1	13.6	2.7	13.4	1.5	13.8	2.5	13.6	2.7	13.7	2.3	13.5
14 Peshawar	0.9	11.5	1.3	10.1	0.5	13.0	1.4	11.4	1.3	9.6	1.5	12.8
15 Bannu	0.5	8.8	0.2	10.2	0.7	7.5	0.9	8.8	0.2	10.0	1.6	7.8
16 Quetta	1.5	9.0	1.0	8.5	2.0	9.5	1.8	9.0	0.8	8.1	2.6	9.7
17 Khuzdar	0.3	6.0	-0.1	6.7	0.8	5.3	0.9	6.0	0.0	6.3	1.7	5.8
	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	2.0	9.6	2.2	10.9	1.9	9.0	2.0	9.8	2.3	10.7	1.7	9.1
2 Islamabad	7.9	14.2	2.0	12.1	11.2	15.4	7.7	14.3	2.1	12.1	12.4	16.0
3 Lahore	2.7	8.2	3.9	12.6	2.0	5.8	2.6	8.7	3.8	12.2	1.7	5.9
4 Gujranwala	1.5	6.6	0.7	6.6	1.9	6.5	1.6	7.2	1.2	7.0	1.9	7.3
5 Sialkot	2.3	8.6	2.7	8.3	2.1	8.7	2.2	8.6	2.7	8.2	1.7	8.9
6 Faisalabad	3.7	10.7	1.0	11.7	5.1	10.2	3.3	11.7	1.5	12.3	4.7	11.2
7 Multan	2.4	7.9	2.3	9.7	2.5	7.0	2.3	8.5	2.3	10.0	2.3	7.5
8 Sargodha	3.3	9.5	4.1	11.2	3.0	8.7	3.2	10.0	3.9	11.3	2.8	9.1
9 Bahawalpur	2.5	8.3	4.0	9.4	1.9	7.7	2.8	8.7	4.1	9.5	1.9	8.2
10 Karachi	1.6	6.6	1.4	9.0	1.7	5.3	1.5	6.7	1.6	9.1	1.5	4.9
11 Hyderabad	1.5	6.3	0.7	8.4	2.0	5.2	1.4	7.1	1.0	8.9	1.8	5.8
12 Sukkur	1.5	5.9	0.8	5.0	1.9	6.4	1.4	6.8	1.2	5.9	1.6	7.4
13 Larkana	2.1	12.6	2.3	13.1	2.1	12.4	2.4	13.3	2.7	13.2	2.2	13.4
14 Peshawar	1.2	11.6	1.3	10.0	1.2	12.3	1.2	11.6	1.3	10.2	1.2	12.5
15 Bannu	0.9	6.3	-0.2	8.6	1.4	5.2	0.8	8.4	0.2	9.9	1.3	7.3
16 Quetta	1.7	8.6	0.5	8.1	2.3	8.8	1.7	8.9	0.8	8.5	2.4	9.3
17 Khuzdar	0.8	4.0	-0.3	5.1	1.3	3.4	0.7	6.1	-0.1	6.7	1.2	5.6

Table A6: City- wise CPI Inflation (YoY) October, 2013

	High inflation cities				Low inflation cities		
	General	Food	Non-food		General	Food	Non-food
Mianwali	16.0	15.8	16.1	D.G. Khan	9.0	9.0	9.0
Mardan	15.2	15.6	15.0	Quetta	8.9	8.5	9.3
Islamabad	14.3	12.1	16.0	Nawabshah	8.9	9.2	8.7
Larkana	13.3	13.2	13.4	Vehari	8.9	10.0	8.1
Rahim Yar Khan	12.9	14.4	11.7	Wazirabad	8.9	8.1	9.4
Mingora	12.6	10.7	13.8	Bahawalpur	8.7	9.5	8.2
Dera Mrd.Jamali	12.6	14.4	11.2	Lahore	8.7	12.2	5.9
Faisalabad	11.7	12.3	11.2	Sialkot	8.6	8.2	8.9
Turbat	11.6	10.4	12.4	Multan	8.5	10.0	7.5
Peshawar	11.6	10.2	12.5	Bahawalnagar	8.5	11.1	6.8
Jehlum	11.1	13.4	9.4	Abbotabad	8.5	10.2	7.4
Mithi	10.6	7.6	12.7	Bannu	8.4	9.9	7.3
D. I. Khan	10.4	10.9	10.0	Loralai & Cantt	8.4	9.5	7.6
Jhang	10.2	9.4	10.7	Attock	7.6	9.0	6.6
Muzaffargarh	10.0	10.6	9.7	Gujranwala	7.2	7.0	7.3
Sargodha	10.0	11.3	9.1	Hyderabad	7.1	8.9	5.8
Gawadar	9.9	11.1	9.1	Sukkur	6.8	5.9	7.4
Rawalpindi	9.8	10.7	9.1	Karachi	6.7	9.1	4.9
Sahiwal	9.7	9.2	10.1	Khuzdar	6.1	6.7	5.6
Dadu	9.2	12.4	7.0	Mir Pur Khas	5.7	6.0	5.5

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

Table A7: Income Group-wise Inflation (percent)						
	MoM			YoY		
	Oct-12	Sep-13	Oct-13	Oct-12	Sep-13	Oct-13
<u>Up to Rs. 8000</u>						
General	0.4	-0.4	1.4	7.0	8.5	9.6
Food	0.0	-1.0	1.9	5.1	8.3	10.4
Non-food	1.0	0.5	0.8	9.6	8.6	8.4
<u>Rs. 8001- 12000</u>						
General	0.4	-0.4	1.3	8.2	8.1	9.1
Food	-0.1	-1.2	1.8	5.3	8.1	10.1
Non-food	0.9	0.5	0.8	11.5	8.1	8.0
<u>Rs. 12001- 18000</u>						
General	0.4	-0.4	2.3	8.1	7.9	9.9
Food	-0.1	-1.4	1.8	5.6	7.9	9.9
Non-food	0.9	0.6	2.9	10.8	7.8	10.0
<u>Rs. 18001- 35000</u>						
General	0.4	-0.4	2.4	6.8	7.7	9.8
Food	-0.1	-1.5	1.7	5.8	7.8	9.8
Non-food	0.8	0.6	3.0	7.7	7.6	9.9
<u>Above Rs. 35000</u>						
General	0.4	-0.2	1.9	7.3	6.8	8.4
Food	-0.1	-1.7	1.6	6.1	7.8	9.5
Non-food	0.6	0.6	2.0	7.9	6.4	7.9
<u>All income groups</u>						
General	0.4	-0.3	2.0	7.7	7.4	9.1
Food	-0.1	-1.5	1.7	5.8	7.9	9.8
Non-food	0.7	0.6	2.2	9.0	7.0	8.6

Table A8: SPI Item-wise Price Movements

Sr.No.	Items	Unit	Prices Oct-13	Percentage change	
				YoY	MoM
1	Wheat	10Kg.	362.7	25.7	0.1
2	Wheat Flour Bag	10Kg.	411.2	22.8	1.0
3	Rice Basmati Broken	Kg.	74.5	9.3	0.3
4	Rice Irri-6	Kg.	53.8	9.7	-0.2
5	Bread Plain Med. Size (340-400 Gm.)	Each	38.5	16.0	1.9
6	Beef	Kg.	281.7	5.4	0.5
7	Mutton	Kg.	553.2	8.3	0.3
8	Chicken Live (Farm)	Kg.	140.2	16.4	-5.8
9	Milk Fresh	Litr	68.5	6.0	0.1
10	Curd	Kg.	80.7	7.4	0.2
11	Milk Powdered Nido	500G	297.9	2.7	1.2
12	Egg Hen (Farm)	Doz.	98.0	-7.1	-0.3
13	Mustard Oil	Kg.	182.6	-1.9	-0.6
14	Cooking Oil (Tin)	2.5Ltr	537.4	-0.4	0.0
15	Veg. Ghee (Tin)	2.5Kg.	510.4	-3.6	0.0
16	Veg. Ghee Loose	Kg.	158.0	-2.7	0.2
17	Bananas	Doz.	55.9	-6.2	-8.8
18	Masoor Pulse Washed	Kg.	112.8	16.1	0.4
19	Moong Pulse Washed	Kg.	124.5	8.3	1.3
20	Mash Pulse Washed	Kg.	129.6	-3.4	0.7
21	Gram Pulse Washed	Kg.	70.9	-33.1	-3.4
22	Potatoes	Kg.	45.0	47.4	29.5
23	Onions	Kg.	52.4	27.0	11.1
24	Tomatoes	Kg.	68.3	35.2	5.9
25	Sugar	Kg.	55.7	4.3	3.4
26	Gur	Kg.	89.2	21.2	-0.8
27	Salt Powdered Loose (Lahori)	Kg.	9.2	7.1	0.8
28	Red Chilies Powder Loose	Kg.	217.0	-22.9	0.0
29	Garlic	Kg.	129.3	9.4	3.6
30	Tea (Yellow Label)	200Gm.	170.6	29.5	-0.9
31	Cooked Beef Plate	Each	76.2	14.3	1.0
32	Cooked Dal Plate	Each	45.1	15.1	0.3
33	Tea Prepared (Sada)	Cup	16.3	8.1	0.0
34	Cigarettes K-2 (20'S)	20'S	37.6	17.5	0.1
35	Long Cloth (Coarse Latha)	Mtr.	172.0	20.0	0.5
36	Shirting	Mtr.	141.6	19.7	0.4
37	Lawn	Mtr.	189.8	18.6	0.0
38	Georgette (Voil Printed)	Mtr.	110.4	12.5	0.1
39	Sandal Gents Bata	Pair	649.0	30.1	0.0
40	Chappal Spong. Bata (Gents)	Pair	179.0	0.0	0.0
41	Sandal Ladies Bata	Pair	499.0	25.1	0.0
42	Electric Charges 1-50	Unit	2.0	0.0	0.0
43	Gas Charges upto 3.3719	Mmbtu	124.2	7.1	0.0
44	Kerosene	Litr	126.7	6.2	1.5
45	Firewood	40Kg	520.4	9.8	0.6
46	Energy Savor 14 Watts	Each	161.5	9.1	0.0
47	Washing Soap (200-250 Gm.)	Cake	23.1	11.3	0.3
48	Match Box	Each	1.4	26.6	7.0
49	Petrol	Litr	115.0	10.2	3.7
50	Diesel	Litr	118.6	4.3	4.1
51	L.P.G.(11 Kg Cylinder.)	Each	1534.7	1.3	0.3
52	Tele. Local Call	Call	3.9	9.7	0.0
53	Bath Soap Lifebuoy (Standard)	Cake	36.0	12.5	0.2
Maximum				47.4	29.5
Median				9.4	0.2
Minimum				-33.1	-8.8

Table A9: Distribution of Price Changes (YoY) - WPI Items: October 2013				
Groups	Decrease or no change	Subdued increase (Up to 5%)	Moderate increase (5 to 10%)	More than 10% increase
Agriculture Forestry & Fishery Products	Pulses, Eggs, Millet/Bajra, Other Oil Seeds, Cotton Seeds, Sugar Crops	Milk from Bovine Animals	Maize, Unmanufactured Tobacco, Rice, Hides and Fur Skins, Raw	Edible Roots/Potatoes, Sorghum/Jowar, Fish Live Fresh or Chilled, Stimulant and Spice Crops, Fibre Crops, Wheat, Vegetables, Poultry, Fresh Fruits, Fuel Wood in Logs, Raw Animal Material/Wool, Dry Fruits
Ores & Minerals, Electricity Gas & Water			Natural Gas Liquefied	Salt & Pure Sodium Chloride, Electrical Energy, Coal not Agglomerated
Food Products, Beverages and Tobacco, Textiles, Apparel and Leather Products	Spices, Other Cereal Flour, Other Food Products, Processed Liquid Milk, Vegetable Ghee, Chocolate, Woolen Carpets	Oil Cakes, Nylon Yarn, Vegetables & Fruit Juices, Vegetable Oil Refined, Sugar Confectionary, Synthetic Carpets	Blankets, Quilts, Footwear, Cotton Fabrics, Other Fabrics, Mineral Water, Beverages, Dairy Products N.E.C, Hosiery Products, Sugar Refined, Blended Yarn, Silk and Rayon Fabrics, Meat of Animals, Dried Fruits & Nuts, Fruit Juices	Other Leather N.E.C, Leather without Hairs, Wheat Flour, Ice Cream, Coffee and Tea, Tobacco Products, Towels, Ready Made Garments, Bed Sheets, Cotton Yarn, Woven Fabrics, Milk and Cream in Solid Form
Other Transportable Goods except Metal Products, Machinery and Equipments	Hard Board, Medicines, Coke, Dying Materials	Plastic Products, Diesel Oil, Auto Tyres, Fertilizers, Furnace Oil	Motor Sprit, Cement, Other Glass Articles, Ceramics and Sanitary, Glass Sheets, Soaps & Detergent, Mobil Oil, Bed Foams, Kerosene Oil, Paints & Varnishes	Matches, Printing Paper, Pesticides, Bricks Blocks and Tiles, Insecticides, Chemicals, Timber
Metal Product Machinery & Equipment	Motor Cycles, Pig Iron, Engines and Motors, Vacuum Pumps, Concrete Mixer	Air Conditioners, Tractors, Chuff Cutter, Steel Products, Motor Vehicles, Steel Bars & Sheets, Bicycles, Radio and Television	Cultivators, Lathe Machines, Electrical Wires	Pipe Fittings, Lighting Equipments, Refrige, Wash & Sew Mach, Iron, Fan

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

Items and specification	Weights	Index		
		Oct-12	Sep-13	Oct-13
General	100.00	173.10	185.18	188.82
Food & Non-Alcoholic Beverages.	34.83	193.56	208.29	211.99
1 Wheat	0.35	169.62	210.43	212.47
2 Wheat Flour	4.16	178.16	219.75	221.49
3 Wheat Product	0.10	171.84	200.79	203.19
4 Besan	0.15	236.28	172.67	171.16
5 Rice	1.58	171.96	191.49	192.27
6 Cereals	0.16	201.55	225.08	227.50
7 Bakery & Confectionary	1.16	173.13	192.20	193.77
8 Nimco	0.46	196.94	212.27	213.57
9 Meat	2.43	218.61	227.90	228.63
10 Chicken	1.36	144.25	172.37	172.68
11 Fish	0.30	190.61	204.54	208.46
12 Milk Fresh	6.68	215.09	229.63	230.76
13 Milk Product	0.63	208.96	224.25	225.47
14 Milk Powder	0.11	182.84	196.38	197.75
15 Egg	0.46	215.35	200.85	198.88
16 Mustard Oil	0.10	161.41	157.73	157.41
17 Cooking Oil	1.75	165.39	161.00	161.21
18 Vegetable Ghee	2.07	162.88	155.71	156.04
19 Dry Fruits	0.25	201.35	219.52	221.30
20 Fresh Fruits	1.86	188.87	192.94	195.24
21 Pulse Masoor	0.27	143.13	158.34	159.87
22 Pulse Moong	0.23	219.90	233.56	232.81
23 Pulse Mash (Washed)	0.21	193.39	187.31	187.13
24 Pulse Gram	0.24	238.12	165.50	163.71
25 Gram Whole	0.16	227.51	176.72	174.43
26 Beans	0.03	211.70	233.29	234.82
27 Potatoes	0.45	204.38	236.99	295.14
28 Onion	0.51	245.99	283.29	322.63
29 Tomatoes	0.42	155.77	217.79	234.89
30 Fresh Vegetable	1.75	217.38	230.51	253.79
31 Sugar	1.04	195.57	194.50	200.64
32 Gur	0.02	224.78	275.82	276.11
33 Honey	0.04	246.00	257.91	260.63
34 Sweet Meet	0.25	204.05	217.22	218.95
35 Beverages	1.20	168.93	187.70	188.18
36 Jam, Tomato Ketchup & Pickle	0.25	174.76	188.19	188.91
37 Condiments	0.27	212.16	219.19	220.82
38 Spices	0.54	262.27	214.85	214.81
39 Tea	0.84	203.23	254.67	253.90
Alcoholic Beverages, Tobacco	1.41	190.43	217.85	218.25
40 Cigarette	1.39	190.62	218.30	218.68
41 Betel Leaves & Nuts	0.02	178.37	190.83	192.62
Clothing & Footwear	7.57	170.38	193.59	194.51
42 Cotton Cloth	1.73	158.22	180.48	181.33
43 Woolen Cloth	0.88	190.45	208.95	211.03
44 Ready Made Garment	0.97	172.07	191.11	192.61
45 Woolen Readymade Garments	0.40	168.96	194.99	196.12
46 Hosiery	0.51	181.55	200.13	201.09
47 Dopatta	0.44	186.02	209.40	210.56
48 Cleaning & Laundering	0.21	190.15	212.30	213.08

Table A10: Consumer Price Index Numbers by Major Groups and Composite Commodities				
Items and specification	Weights	Index		
		Oct-12	Sep-13	Oct-13
49 Tailoring	0.88	202.23	232.70	233.15
50 Footwear	1.55	142.91	169.25	169.38
Housing,Water,Elect,Gas & Other Fuel	29.41	149.95	157.75	164.17
51 House Rent	21.81	139.61	148.24	150.59
52 Construction Input Item	0.56	201.21	217.40	218.32
53 Construction Wage Rate	0.33	170.75	188.19	188.80
54 Water Supply	0.50	133.23	145.80	145.80
55 Electricity	4.40	196.37	196.37	227.44
56 Gas	1.58	134.34	143.81	143.81
57 Kerosene Oil	0.01	274.09	288.89	293.68
58 Fire Wood Whole	0.23	228.19	249.90	250.91
Furnished H.Hold Equip.& Maint. Etc	4.21	176.84	190.99	192.39
59 Furniture	0.33	167.17	180.68	182.22
60 Household Textile	0.65	173.23	186.39	188.19
61 Household Equipment	0.59	156.81	163.50	164.21
62 Utensils	0.32	174.91	189.05	190.82
63 Plastic Products	0.25	174.34	186.86	187.78
64 Washing Soap & Detergent	0.79	191.20	210.04	211.38
65 Sewing Needle & Dry Cell	0.15	150.69	168.44	170.32
66 Household Servant	1.04	186.45	202.20	203.63
67 Marriage Hall Charges	0.08	193.11	204.59	206.52
Health	2.19	155.13	164.23	165.15
68 Drug Medicine	1.27	137.39	142.09	142.10
69 Medical Equipment	0.01	195.91	208.73	208.73
70 Doctor (MBBS) Clinic Fee	0.59	192.89	212.47	214.87
71 Medical Test	0.32	154.65	161.78	163.57
Transport	7.20	191.22	194.54	197.06
72 Motor Vehicle	0.66	152.25	159.74	160.39
73 Motor Vehicle Accessories	0.24	205.45	219.28	220.01
74 Motor Fuel	3.03	193.27	190.34	195.25
75 Mechanical Service	0.46	181.25	195.60	196.39
76 Motor Vehicle Tax	0.11	152.02	153.74	153.74
77 Transport Services	2.70	200.46	207.03	207.87
Communication	3.22	123.68	129.66	129.68
78 Postal Services	0.07	172.89	215.89	215.89
79 Communication & Apparatus	3.15	122.65	127.85	127.87
Recreation & Culture	2.02	165.94	181.87	182.19
80 Recreation & Culture	0.86	121.85	124.90	125.46
81 Text Books	0.57	230.23	266.88	267.10
82 News Papers	0.19	155.91	170.49	170.49
83 Stationery	0.40	174.36	189.17	189.24
Education	3.94	154.47	166.49	167.91
84 Education	3.94	154.47	166.49	167.91
Restaurants And Hotels	1.23	200.30	221.68	223.77
85 Ready Made Food	1.23	200.30	221.68	223.77
Miscellaneous Goods And Services	2.76	198.94	206.86	208.36
86 Personal Care	1.49	178.18	188.30	190.82
87 Cosmetics	0.39	148.93	169.63	174.26
88 Blades	0.03	171.51	180.16	180.16
89 Personal Equipments	0.84	259.57	257.70	256.05

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

Items and Specifications	Index		
	Oct-12	Sep-13	Oct-13
General	192.88	209.33	211.70
Agriculture Forestry & Fishery	194.13	218.32	220.96
1 Wheat	177.61	221.91	222.41
2 Maize	167.05	193.51	182.03
3 Rice	163.86	178.15	174.66
4 Sorghum/Jowar	184.26	266.44	263.80
5 Millet/Bajra	194.58	187.35	185.50
6 Vegetables	269.17	314.40	333.60
7 Fresh Fruits	183.93	220.14	221.48
8 Dry Fruits	173.49	188.16	192.11
9 Cotton Seeds	170.28	165.07	168.29
10 Other Oil Seeds	183.21	175.36	175.89
11 Edible Roots/ Potatoes	196.16	231.30	308.49
12 Stimulant And Spice Crops	204.46	254.77	261.90
13 Pulses	213.03	176.48	175.64
14 Sugar Crops	267.92	267.92	267.92
15 Fibre Crops	176.84	219.53	225.78
16 Unmanufactured Tobacco	168.99	181.07	181.07
17 Poultry	143.42	177.47	173.31
18 Milk From Bovine Animals	213.76	222.52	223.35
19 Eggs	217.03	205.51	203.29
20 Raw Animal Material/Wool	136.65	153.55	153.55
21 Hides And Fur Skins, Raw	137.17	145.03	144.43
22 Fuel Wood In Logs	205.02	234.96	232.88
23 Fishes Live Fresh Or Chilled	176.68	249.62	248.24
Ores/Minerals, Gas & Elect.	207.79	240.04	243.64
24 Coal Not Agglomerated	196.08	223.53	223.53
25 Natural Gas Liquefied	192.25	204.58	204.63
26 Salt & Pure Sodium Chloride	164.54	217.04	217.04
27 Electrical Energy	226.10	279.61	287.44
Food, Beverages, Tobacco, Textiles	185.83	199.08	200.96
28 Meat Of Animals	227.09	233.93	239.95
29 Vegetables & Fruit Juices	185.05	192.05	192.05
30 Dried Fruits & Nuts	212.04	223.21	223.95
31 Fruit Juices	157.15	165.08	165.10
32 Vegetable Oil Refined	155.32	161.04	160.07
33 Vegetable Ghee	141.43	140.69	140.53
34 Oil Cakes	172.81	176.21	181.08
35 Processed Liquid Milk	208.43	205.54	205.54
36 Milk And Cream In Solid Form	170.79	179.40	188.09
37 Ice Cream	167.68	209.53	209.79
38 Dairy Products N.E.C	202.69	216.63	217.26
39 Wheat Flour	164.13	202.67	205.40
40 Other Cereal Flour	208.22	138.44	134.55
41 Sugar Refined	204.34	212.34	218.48
42 Chocolate	99.19	99.19	99.19
43 Sugar Confectionary	100.40	102.28	102.28
44 Coffee And Tea	192.33	230.54	230.00
45 Spices	304.68	195.85	191.28
46 Other Food Products	323.46	316.68	308.23
47 Mineral Water	168.29	180.22	181.84
48 Beverages	137.86	139.63	148.83
49 Tobacco Products	208.80	242.41	242.41
50 Cotton Yarn	200.08	222.40	223.38
51 Nylon Yarn	176.45	182.19	183.61
52 Blended Yarn	190.06	200.64	202.06
53 Woven Fabrics	196.74	217.16	218.12
54 Cotton Fabrics	173.68	187.43	187.77
55 Other Fabrics	165.62	175.74	178.98

Table A11: Wholesale Price Index Numbers by Major Groups and Composite Commodities				
		Index		
Items and Specifications		Oct-12	Sep-13	Oct-13
56 Silk And Rayon Fabrics		151.23	160.08	160.48
57 Towels		200.68	218.47	231.87
58 Blankets		172.59	185.21	189.62
59 Bed Sheets		197.94	217.78	223.74
60 Quilts		147.05	156.32	160.74
61 Woolen Carpets		106.55	106.55	106.55
62 Synthetic Carpets		113.15	114.41	114.41
63 Hosiery Products		173.15	185.30	185.37
64 Ready Made Garments		135.15	152.13	153.12
65 Leather With Out Hairs		109.83	140.50	140.50
66 Other Leather N.E.C		122.57	263.79	263.79
67 Footwear's		128.50	139.49	139.49
Other Transportable Goods		206.53	213.44	216.28
68 Timber		148.07	161.45	163.35
69 Printing Paper		147.96	164.84	167.02
70 Hard Board		239.58	208.33	214.58
71 Coke		163.45	163.45	163.45
72 Motor Sprit		174.17	184.38	191.35
73 Diesel Oil		268.79	270.32	279.68
74 Kerosene Oil		273.51	282.64	288.36
75 Furnace Oil		179.20	179.02	182.48
76 Mobil Oil		182.64	192.70	193.09
77 Chemicals		149.01	165.49	165.70
78 Dying Materials		104.26	104.26	104.26
79 Fertilizers		259.86	269.45	264.71
80 Pesticides		197.49	213.45	222.93
81 Insecticides		117.46	129.93	131.09
82 Paints & Varnishes		237.29	247.70	249.49
83 Medicines		139.44	138.77	138.77
84 Soaps & Detergent		168.39	178.79	178.79
85 Auto Tyres		180.73	185.57	185.57
86 Plastic Products		191.31	199.06	199.24
87 Glass Sheets		190.93	204.55	205.47
88 Other Glass Articles		189.33	206.09	206.09
89 Ceramics And Sanitary		157.32	166.88	170.85
90 Bricks Blocks And Tiles		172.14	188.17	192.69
91 Cement		183.17	201.55	200.39
92 Bed Foams		140.00	145.33	147.67
93 Matches		126.70	143.20	143.20
Metal Product Machinery & Equip		158.67	166.39	166.77
94 Pig Iron		128.97	128.97	128.97
95 Steel Bars & Sheets		135.96	141.14	141.14
96 Pipe Fittings		141.47	150.29	160.63
97 Steel Products		161.94	168.46	168.46
98 Engines And Motors		109.07	109.07	109.07
99 Vacuum Pumps		115.39	115.39	115.39
100 Air Conditioners		172.67	179.78	181.12
101 Cultivators		184.66	191.51	200.36
102 Chuff Cutter		138.54	144.94	144.94
103 Tractors		161.96	161.96	169.82
104 Lathe Machines		147.68	148.86	155.90
105 Concrete Mixer		138.83	138.83	138.83
106 Refrige,Wash& Sew Mach, Iron,Fan		163.68	180.51	181.62
107 Electrical Wires		159.57	168.13	168.13
108 Lighting Equipments		145.21	162.27	162.52
109 Radio And Television		126.46	126.49	126.49
110 Motor Vehicles		167.70	174.21	174.21
111 Motor Cycles		125.19	124.80	124.80
112 Bicycles		177.87	180.99	180.99

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

Period		CPI			WPI			SPI *
		Overall	Food	Non-food	Overall	Food	Non-Food	
2008-09		117.03	123.12	113.38	118.93	119.68	118.45	123.26
2009-10		128.85	139.05	122.73	135.40	136.85	134.48	139.84
2010-11		146.45	164.10	135.87	164.17	159.26	167.28	164.02
2011-12		162.57	182.20	150.80	181.28	181.32	181.26	178.67
2012-13		174.53	195.18	162.16	194.61	197.21	192.95	189.64
2011	Feb	146.85	163.56	136.83	168.82	158.33	175.47	164.99
	Mar	148.91	167.10	138.01	174.41	162.92	181.70	166.81
	Apr	150.99	169.25	140.05	178.69	165.46	187.09	167.83
	May	151.33	168.76	140.88	176.97	167.15	183.20	167.98
	Jun	152.78	169.88	142.53	177.98	172.14	181.68	168.09
	Jul	154.72	174.80	142.68	177.26	175.45	178.41	171.45
	Aug	156.89	177.32	144.65	178.24	178.67	177.97	173.86
	Sep	158.50	180.16	145.52	178.68	181.88	176.65	175.02
	Oct	160.79	183.07	147.44	179.34	182.82	177.13	176.45
	Nov	161.25	183.26	148.06	178.39	181.48	176.43	177.53
	Dec	160.12	179.21	148.67	176.01	178.29	174.57	175.04
2012	Jan	162.58	181.90	151.00	179.99	178.95	180.65	178.25
	Feb	163.07	180.69	152.51	180.99	177.56	183.17	178.63
	Mar	164.98	183.46	153.90	182.20	180.41	183.34	180.79
	Apr	168.00	187.43	156.35	185.48	184.45	186.13	184.03
	May	169.93	187.75	159.25	189.46	186.57	191.29	184.88
	Jun	169.99	187.35	159.58	189.37	189.36	189.37	188.14
	Jul	169.57	190.72	156.89	190.05	193.92	187.59	183.98
	Aug	171.09	192.47	158.27	191.99	195.30	189.89	186.47
	Sep	172.44	193.80	159.64	192.66	195.81	190.66	188.21
	Oct	173.10	193.66	160.77	192.88	196.21	190.77	187.32
	Nov	172.42	193.03	160.07	192.16	193.02	191.61	187.35
	Dec	172.82	192.97	160.74	192.98	195.49	191.39	187.95
2013	Jan	175.70	196.58	163.19	195.39	198.81	193.22	190.89
	Feb	175.11	194.05	163.76	196.06	197.22	195.32	190.79
	Mar	175.82	195.06	164.29	196.57	196.02	196.92	192.01
	Apr	177.74	197.74	165.75	198.09	199.00	197.51	192.02
	May	178.65	200.00	165.85	197.23	201.14	194.75	191.96
	Jun	179.94	202.11	166.65	199.21	204.60	195.79	196.75
	Jul	183.58	208.19	168.83	202.49	209.34	198.15	200.80
	Aug	185.71	212.27	169.79	207.85	211.45	205.57	203.29
	Sep	185.18	209.09	170.85	209.33	211.29	208.09	203.05
	Oct	188.82	212.61	174.56	211.70	213.26	210.71	207.69

*: all groups combined

Table A13: International Commodity Prices/ Indices				
	Jul-13	Aug-13	Sep-13	Oct-13
Energy				
Crude Oil (US\$ per barrel) *	105.2	108.1	108.8	105.5
IMF Energy Index (2005 = 100)	192.3	196.8	197.9	192.9
WB Energy Index (2010 = 100) @	128.1	130.9	131.6	128.3
Food				
Rice (\$/MT)	538.3	503.8	470.0	453.3
Wheat (\$/MT)	304.7	305.5	307.5	325.7
Sugar (US cent/ pound)	17.1	17.2	17.6	18.8
Palm Oil (\$/MT)	729.9	722.8	725.8	762.6
Soybean Oil (\$/MT)	1,000.8	944.3	935.0	897.7
Non-Food Non-Energy				
Cotton Outlook 'A' Index #	92.6	92.7	90.1	89.3
IMF Metal Price Index (2005 = 100)	172.7	180.9	177.9	179.0
Copper (\$/MT)	6,906.6	7,186.3	7,159.3	7,203.0
Aluminum (\$/MT)	1,769.6	1,816.2	1,761.3	1,814.6
Iron Ore (\$ cents/dry MT)	127.2	137.1	134.2	132.6
Tin (\$/MT)	19,563.8	21,638.2	22,735.1	23,101.6
Nickle (\$/MT)	13,750.3	14,308.3	13,801.4	14,117.7
Zinc (\$/MT)	1,837.6	1,896.4	1,846.9	1,884.8
Lead (\$/MT)	2,047.7	2,173.1	2,084.9	2,115.4
Uranium (\$/MT)	38.0	35.6	35.8	35.8
DAP (\$/MT)	460.0	438.1	398.1	377.3
Urea (\$/MT)	321.5	303.3	297.8	299.3
Source: IMF and World Bank				
\$/MT = US\$ per metric ton.				
* Crude Oil (Petroleum), simple average of three spot prices; Dated Brent, West Texas Intermediate, and the Dubai fateh				
# Middling 1-3/32 inch staple, Liverpool Index "A", average of the cheapest Cts/lb five of fourteen styles, CIF Liverpool (Cotton Outlook, Liverpool). From January 1968 to May 1981 strict middling 1-1/16 inch staple. Prior to 1968, Mexican 1-1/16.2/				
DAP: Diammonium Phosphate				
@ World Bank commodity index for low and middle income countries				

Table 14. CPI Data Series Original and Seasonally Adjusted

Original Series				
Period	FY11	FY12	FY13	FY14
Jul	137.62	154.72	169.57	183.58
Aug	140.63	156.88	171.09	185.71
Sep	143.49	158.50	172.44	185.18
Oct	144.90	160.79	173.10	188.82
Nov	146.34	161.25	172.42	
Dec	145.90	160.12	172.82	
Jan	147.67	162.58	175.70	
Feb	146.85	163.07	175.11	
Mar	148.91	164.98	175.82	
Apr	150.99	168.00	177.74	
May	151.33	169.93	178.65	
Jun	152.78	169.99	179.94	
Seasonally Adjusted Series				
Jul	137.48	154.57	169.36	183.00
Aug	139.72	155.82	169.86	184.33
Sep	142.62	157.55	171.44	184.12
Oct	143.74	159.47	171.70	187.30
Nov	145.63	160.46	171.54	
Dec	146.67	160.99	173.80	
Jan	147.82	162.71	175.82	
Feb	148.00	164.38	176.52	
Mar	149.78	165.96	176.89	
Apr	150.95	167.90	177.60	
May	151.80	170.52	179.31	
Jun	153.44	170.76	180.82	

Table 15. CPI Food Data Series Original and Seasonally Adjusted				
Original Series				
Period	FY11	FY12	FY13	FY14
Jul	149.33	174.80	190.72	208.19
Aug	156.70	177.32	192.47	212.27
Sep	163.96	180.16	193.80	209.09
Oct	163.91	183.07	193.66	212.61
Nov	166.59	183.26	193.03	
Dec	163.69	179.21	192.97	
Jan	166.52	181.90	196.58	
Feb	163.56	180.69	194.05	
Mar	167.10	183.46	195.06	
Apr	169.25	187.43	197.74	
May	168.77	187.75	200.00	
Jun	169.88	187.35	202.11	
Seasonally Adjusted Series				
Jul	148.87	174.23	189.93	207.19
Aug	154.45	174.63	189.37	208.76
Sep	161.51	177.41	190.86	205.92
Oct	160.95	179.75	190.25	208.95
Nov	164.32	180.73	190.23	
Dec	164.98	180.68	194.61	
Jan	167.20	182.60	197.32	
Feb	166.62	184.16	197.79	
Mar	169.23	185.88	197.70	
Apr	170.05	188.27	198.60	
May	170.06	189.35	201.80	
Jun	171.74	189.50	204.51	

Table 16: CPI Monthly & Average Seasonal Factors					
Period	FY11	FY12	FY13	FY14	Average
Jul	100.10	100.10	100.12	100.32	100.16
Aug	100.65	100.69	100.72	100.75	100.70
Sep	100.61	100.60	100.58	100.58	100.59
Oct	100.81	100.83	100.81	100.81	100.82
Nov	100.49	100.49	100.51		100.50
Dec	99.48	99.46	99.44		99.46
Jan	99.90	99.92	99.93		99.92
Feb	99.22	99.21	99.20		99.21
Mar	99.42	99.41	99.39		99.41
Apr	100.02	100.06	100.08		100.05
May	99.69	99.66	99.63		99.66
Jun	99.57	99.55	99.51		99.55

Table 17: CPI Food Monthly & Average Seasonal Factors					
Period	FY11	FY12	FY13	FY14	Average
Jul	100.31	100.33	100.42	100.48	100.38
Aug	101.46	101.54	101.64	101.68	101.58
Sep	101.52	101.55	101.54	101.54	101.54
Oct	101.83	101.85	101.79	101.75	101.81
Nov	101.38	101.40	101.47		101.42
Dec	99.22	99.19	99.16		99.19
Jan	99.60	99.62	99.63		99.61
Feb	98.16	98.12	98.11		98.13
Mar	98.74	98.70	98.67		98.70
Apr	99.53	99.55	99.57		99.55
May	99.23	99.16	99.11		99.17
Jun	98.92	98.87	98.83		98.87

Table 18: CPI Month-on-Month Change Original & Seasonally Adjusted				
Original Series				
Period	FY11	FY12	FY13	FY14
Jul	2.07	1.27	-0.25	2.02
Aug	2.19	1.40	0.90	1.16
Sep	2.03	1.03	0.79	-0.29
Oct	0.98	1.44	0.38	1.97
Nov	0.99	0.29	-0.39	
Dec	-0.30	-0.70	0.23	
Jan	1.21	1.54	1.67	
Feb	-0.56	0.30	-0.34	
Mar	1.40	1.17	0.41	
Apr	1.40	1.83	1.09	
May	0.23	1.15	0.51	
Jun	0.96	0.04	0.72	
Seasonally Adjusted Series				
Jul		0.73	-0.82	1.21
Aug	1.63	0.81	0.29	0.73
Sep	2.08	1.11	0.93	-0.12
Oct	0.78	1.22	0.15	1.73
Nov	1.32	0.62	-0.09	
Dec	0.71	0.33	1.32	
Jan	0.79	1.07	1.16	
Feb	0.12	1.02	0.40	
Mar	1.20	0.96	0.21	
Apr	0.79	1.17	0.40	
May	0.56	1.56	0.96	
Jun	1.08	0.14	0.84	

Table 19: CPI Food Month-on-Month Change Original & Seasonally Adjusted Series				
Original Series				
Period	FY11	FY12	FY13	FY14
Jul	1.84	2.90	1.80	3.01
Aug	4.93	1.44	0.92	1.96
Sep	4.64	1.60	0.69	-1.50
Oct	-0.04	1.62	-0.07	1.68
Nov	1.64	0.10	-0.33	
Dec	-1.74	-2.21	-0.03	
Jan	1.73	1.50	1.87	
Feb	-1.77	-0.66	-1.29	
Mar	2.16	1.53	0.52	
Apr	1.28	2.16	1.37	
May	-0.28	0.17	1.14	
Jun	0.66	-0.21	1.06	
Seasonally Adjusted Series				
Jul		1.45	0.23	1.31
Aug	3.75	0.23	-0.30	0.76
Sep	4.57	1.60	0.79	-1.36
Oct	-0.35	1.32	-0.32	1.47
Nov	2.10	0.55	-0.01	
Dec	0.40	-0.03	2.30	
Jan	1.35	1.06	1.39	
Feb	-0.35	0.85	0.24	
Mar	1.57	0.93	-0.05	
Apr	0.48	1.29	0.46	
May	0.01	0.57	1.61	
Jun	0.98	0.08	1.34	

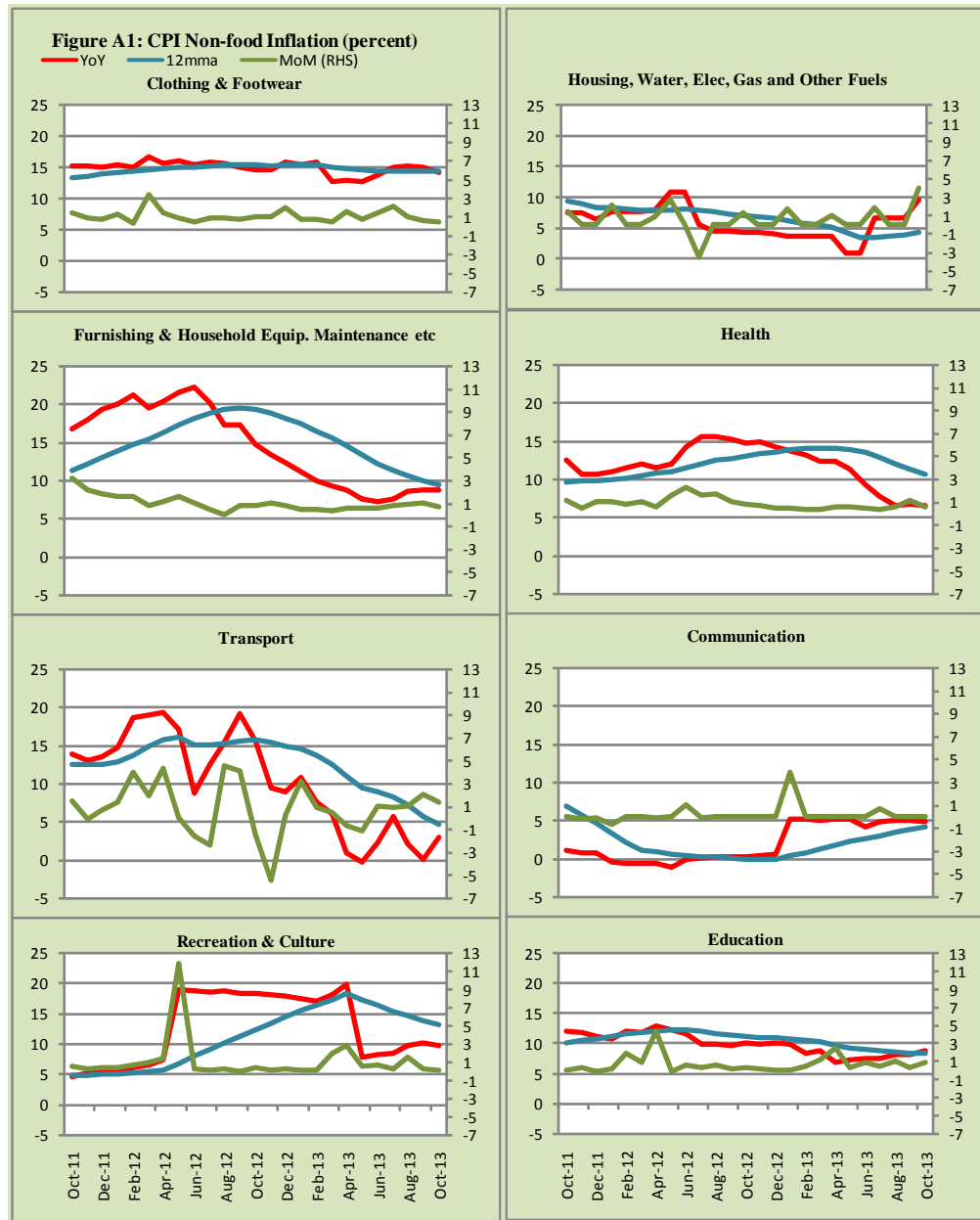


Figure A2: Frequency Distribution of Price Changes of CPI Items, October 2013

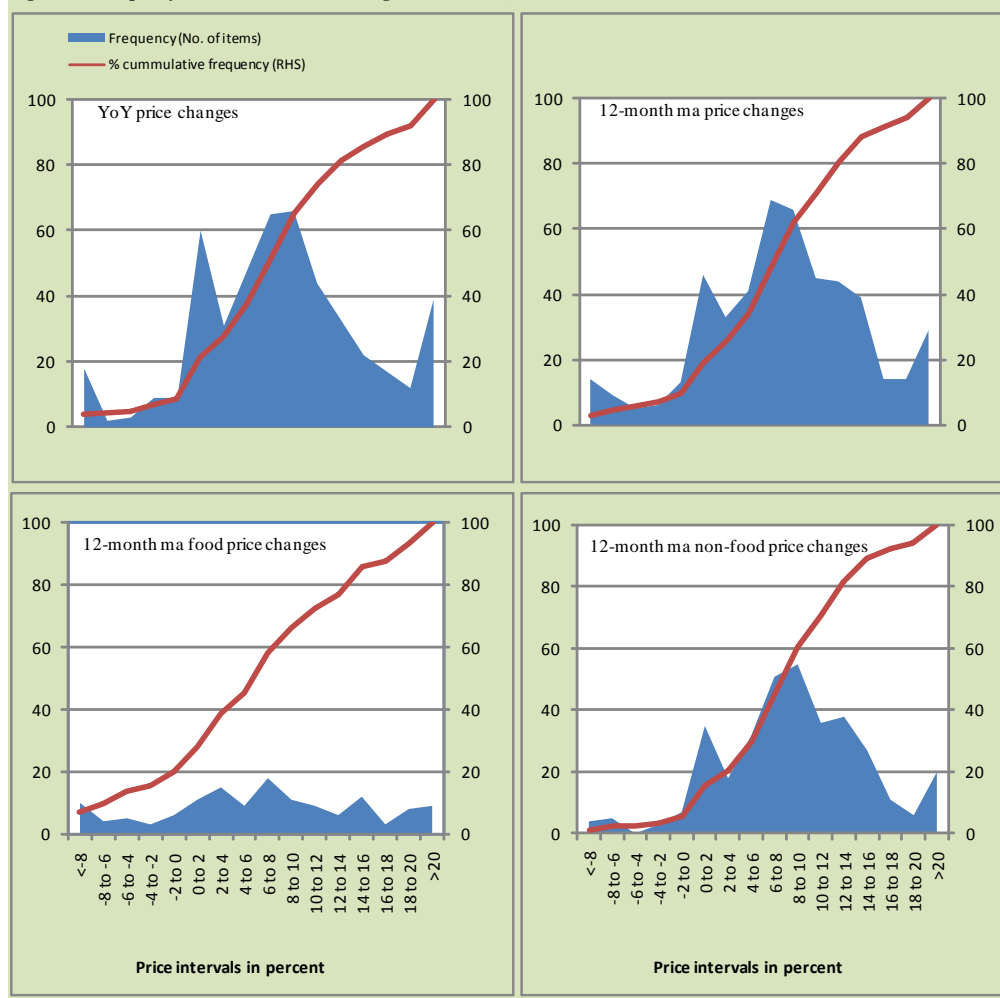


Figure A3: Frequency Distribution of Price Changes of WPI Commodities, October 2013

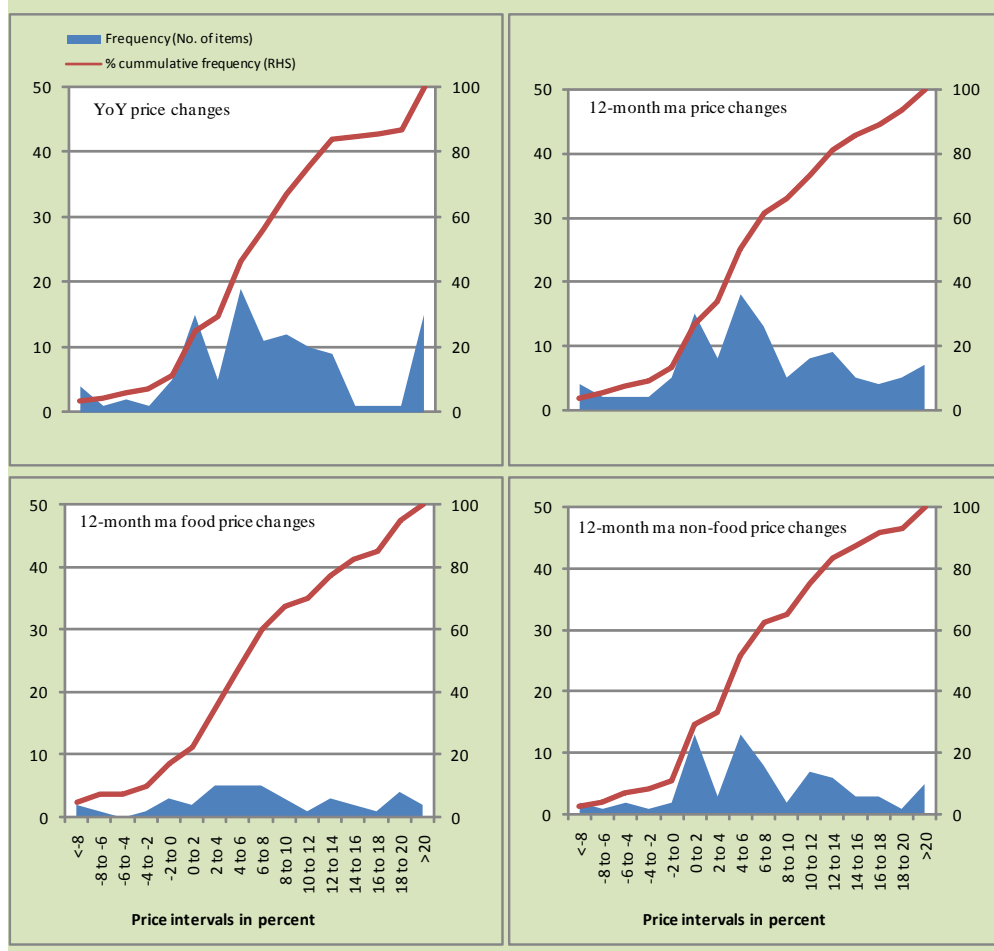
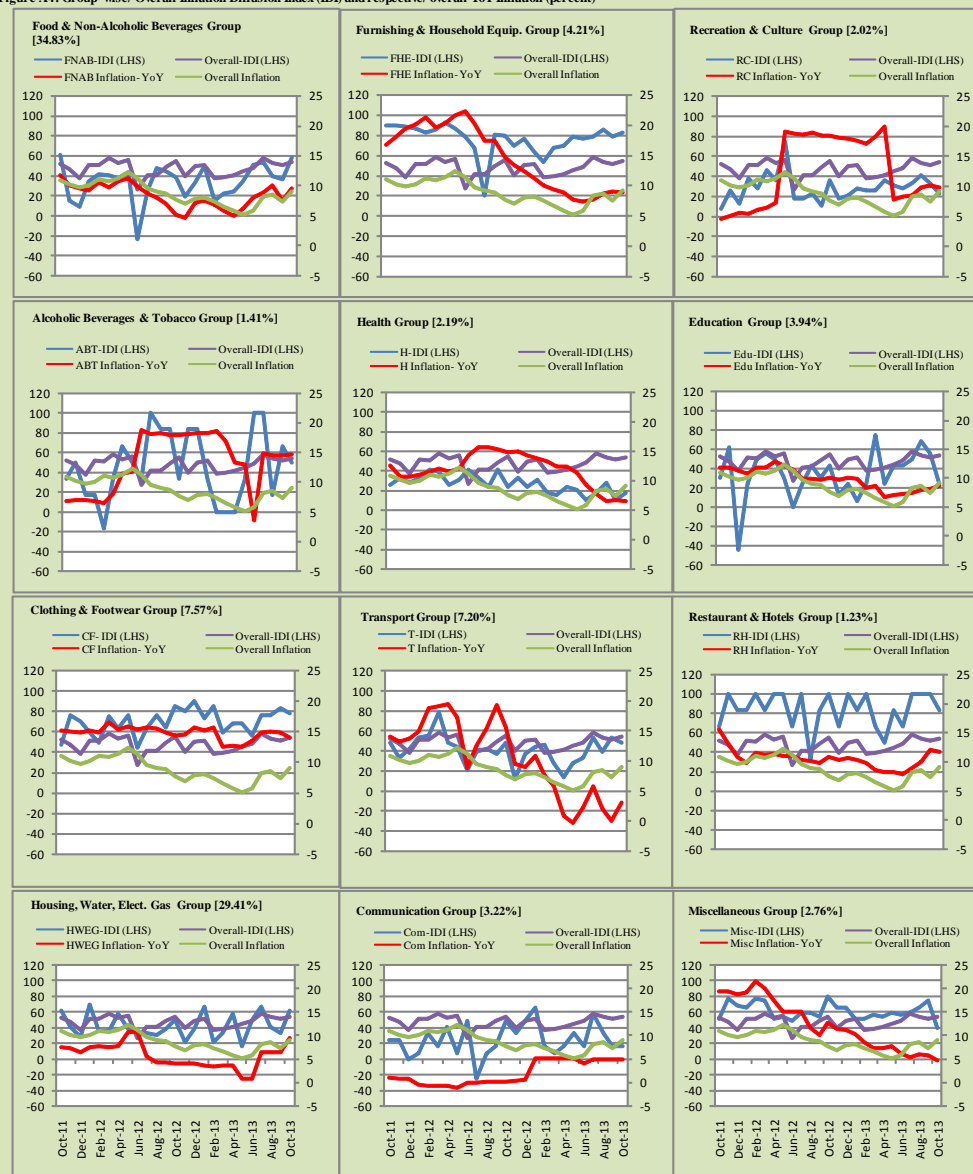


Figure A4: Group-wise/ Overall Inflation Diffusion Index (IDI) and respective/ overall YoY Inflation (percent)



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.
 - c) Relatively Stable Component of CPI (RSC-CPI) developed by State Bank of Pakistan is a hybrid method based on permanent exclusion criteria. Volatile price items, to be excluded in the newly proposed

measure RSC-CPI, are identified by analyzing the list and frequency of commodities that have been trimmed frequently in the past while computing monthly weighted trimmed mean measure. Commodities that were trimmed out 13 and above times since July 2008 to February 2013 are selected for permanently excluding from the CPI basket. This newly developed component includes a mix of both food and non-food commodities that show persistent price behavior. Fifty Commodities included comprise relatively stable component (RSC-CPI) with a weight of 67.69. The detailed methodology of RSC-CPI and group wise items along their weights can be viewed at the following link;

<http://www.sbp.org.pk/publications/wpapers/2013/wp66.pdf>

9. Weighted contribution of different items (or sub-groups) to total inflation is worked out as below:

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

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

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

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

Where C_{it} : Contribution of i^{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^{th} item

π_{it} : Inflation of i^{th} item

π_t : Overall inflation

10. Annualized rate of inflation (based on a month-on-month rate π) 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 constant¹.

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 analysis² suggests that IDI is a leading indicator for Pakistan’s YoY inflation.

¹ 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.

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