

Inflation Monitor

December 2013



State Bank of Pakistan

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Review

Inflation in Brief

1. Headline CPI inflation (2007-08=100) is recorded at 9.2 percent on year-on-year basis in December 2013 as compared to 10.9 percent in the previous month and 7.9 percent in the corresponding month of last year.
2. CPI inflation on month-on-month basis is recorded at -1.3 percent in December 2013 as compared to 1.3 percent in the previous and 0.2 percent during the corresponding month of last year. Seasonally adjusted month-on-month CPI inflation is recorded at -0.1 percent in December 2013 compared to 1.5 percent in the previous month.
3. Core inflation (trimmed) on year-on-year basis decreased to 8.7 percent in December 2013 compared to 9.2 percent in the previous and corresponding month of last year.
4. On month-on-month basis, the Core inflation (trimmed) remained at the level of 0.4 percent in December 2013 and in previous month while it was 0.3 percent in the corresponding month of last year.
5. Non-food, non-energy inflation measured by CPI Core (NFNE) on year-on-year basis decreased to 8.2 percent in December 2013 compared to 8.5 percent in the previous month. It was 9.8 percent in the corresponding month of last year.
6. Core NFNE inflation on month-on-month basis decreased to 0.2 percent in December 2013 as compared to 0.4 percent in the previous month. A 0.5 percent increase in Core NFNE index was observed in December 2012.
7. WPI inflation on year-on-year basis decreased to 8.9 percent in December 2013 when compared to 10.4 percent a month earlier. During December 2012, WPI inflation was recorded at 9.6%.

8. WPI inflation on month-on-month basis is recorded at -1.0 percent in December 2013 as compared to 0.2 percent in the previous month and 0.4 percent in the corresponding month of last year.
9. SPI inflation on year-on-year basis decreased to 12.1 percent in December 2013 as compared to 14.6 percent in the previous month. It was 7.4 percent in the corresponding month of last year.
10. SPI inflation on month-on-month basis recorded at -1.9 percent in December 2013 as compared to 3.4 percent in previous month and 0.3 percent in the corresponding month of last year.

1.1 A New Measure of Core Inflation

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

- Core inflation based on new measure RSC on year-on-year basis recorded at 8.4 percent in December 2013 compared to 8.5 percent in the previous month and 7.8 percent in the corresponding month of last year.
- Core RSC inflation on month-on-month basis remained at the level of 0.3 percent in December 2013 compared to the previous month while it was 0.4 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
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
Nov-13	10.9	1.3	13.0	2.6	9.4	0.3	8.5	0.4	9.2	0.4	8.5	0.3	10.4	0.2	14.6	3.4
Dec-13	9.2	-1.3	9.3	-3.3	9.1	0.2	8.2	0.2	8.7	0.4	8.4	0.3	8.9	-1.0	12.1	-1.9

* NFNE is Non-food non-energy

** Relatively Stable Component of CPI

*** SPI for all income groups combined

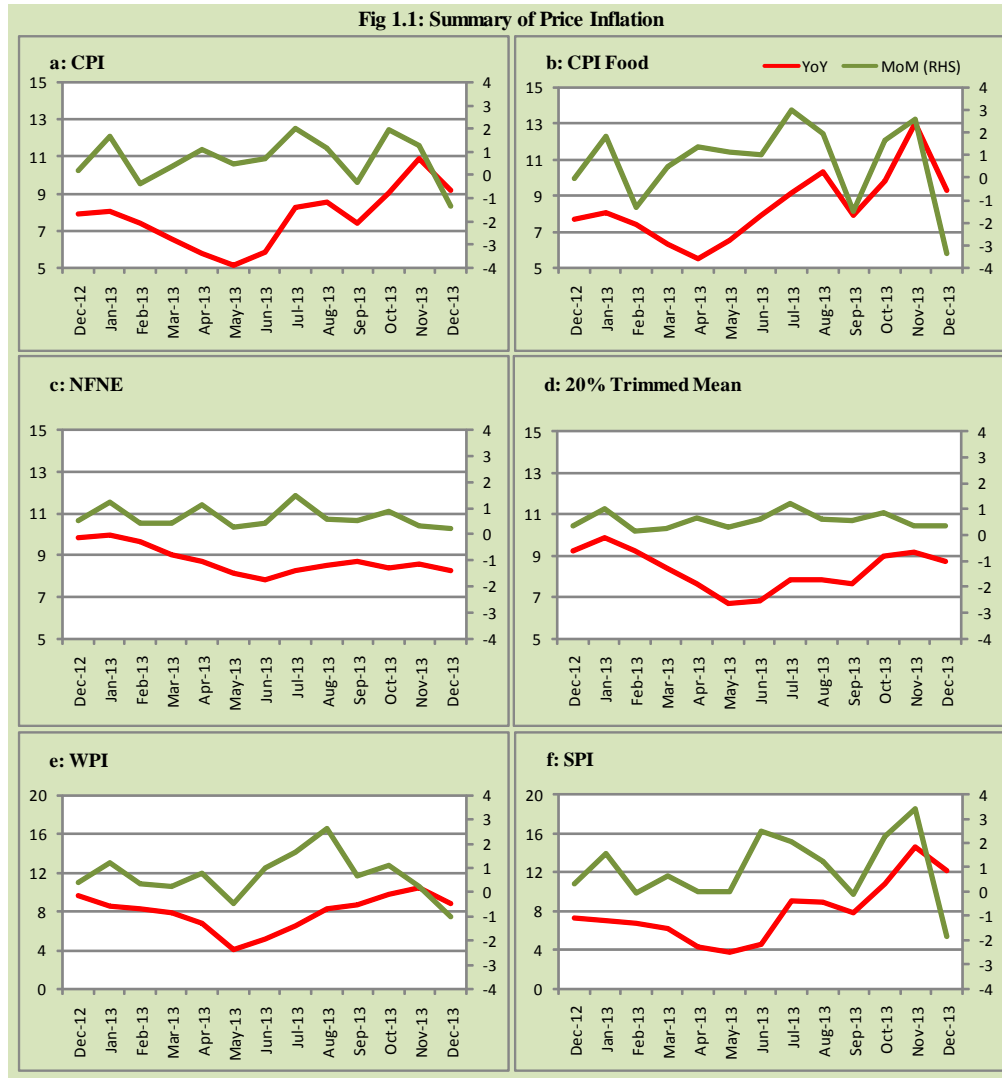
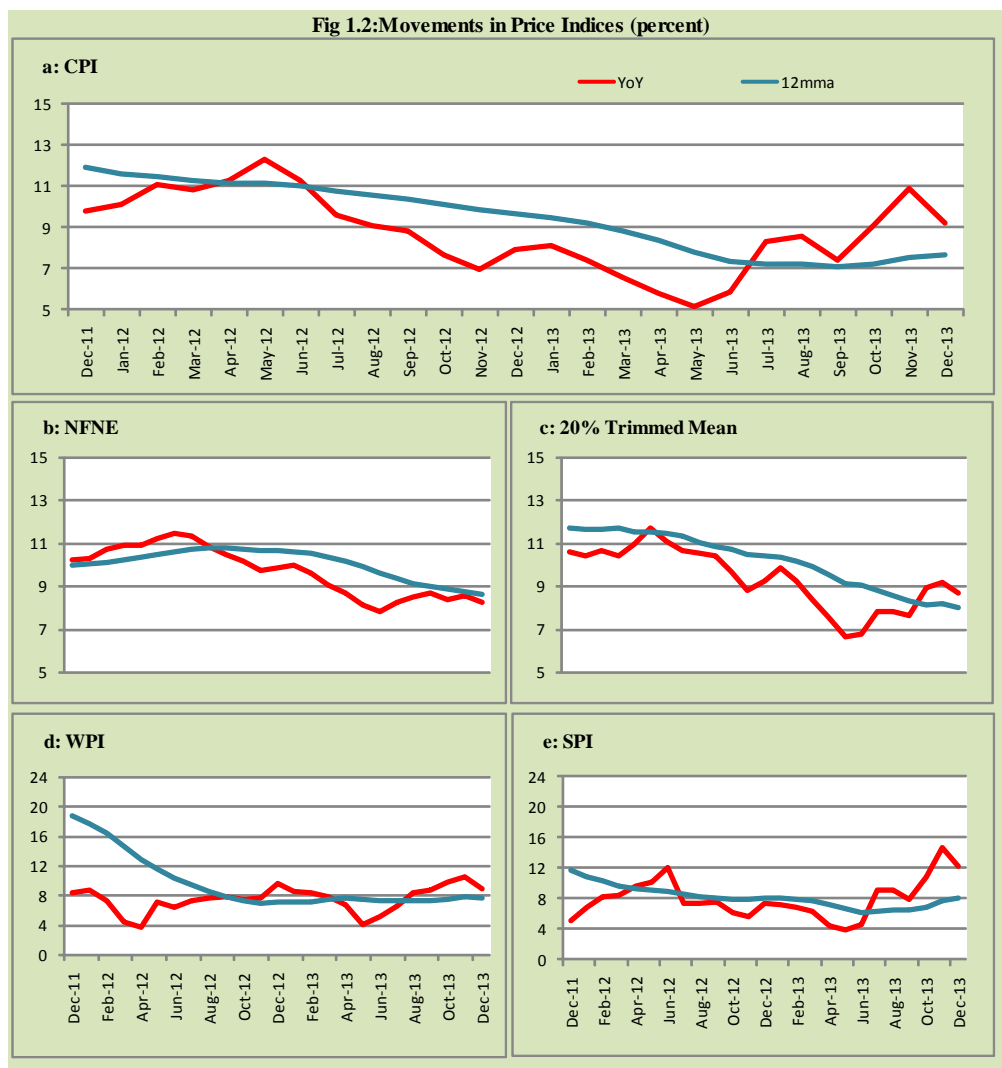


Fig 1.2: Movements in Price Indices (percent)



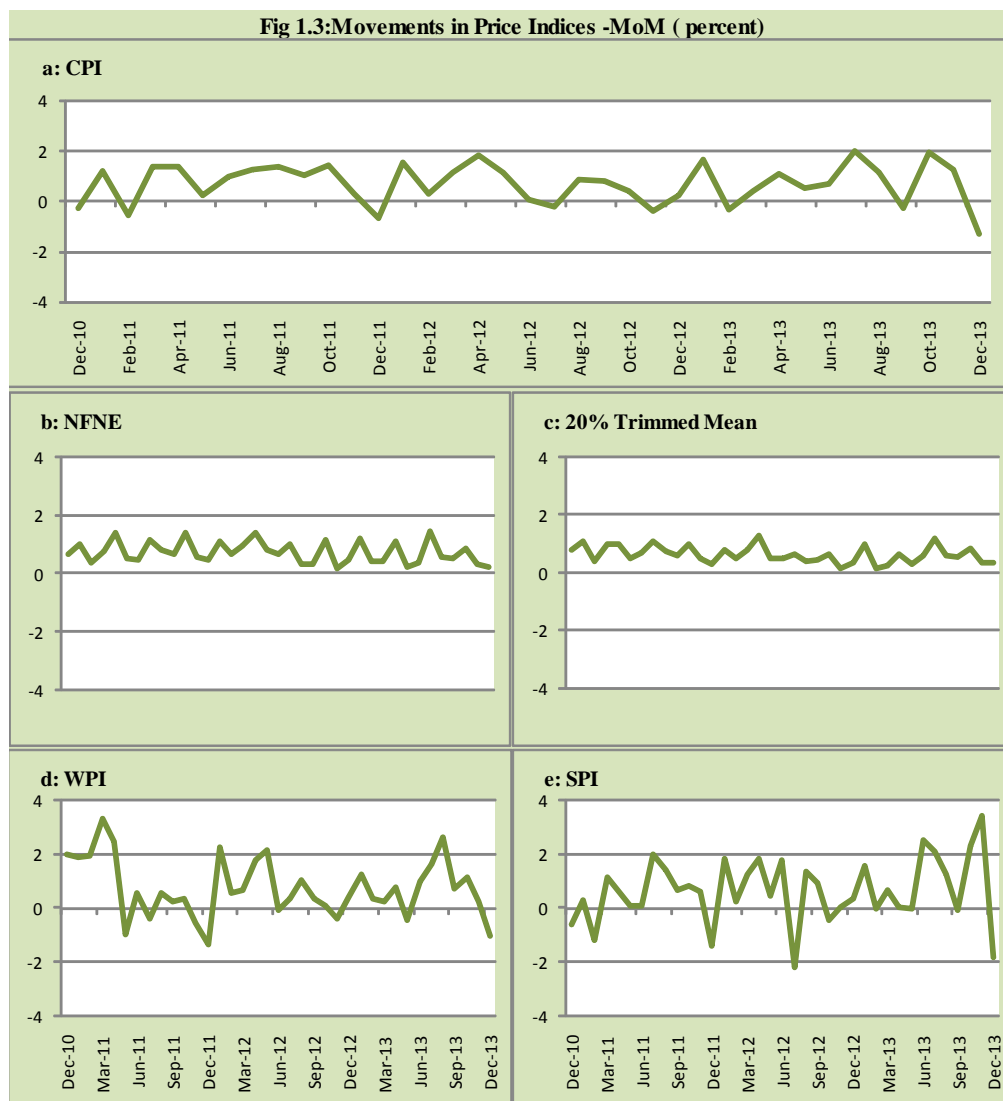
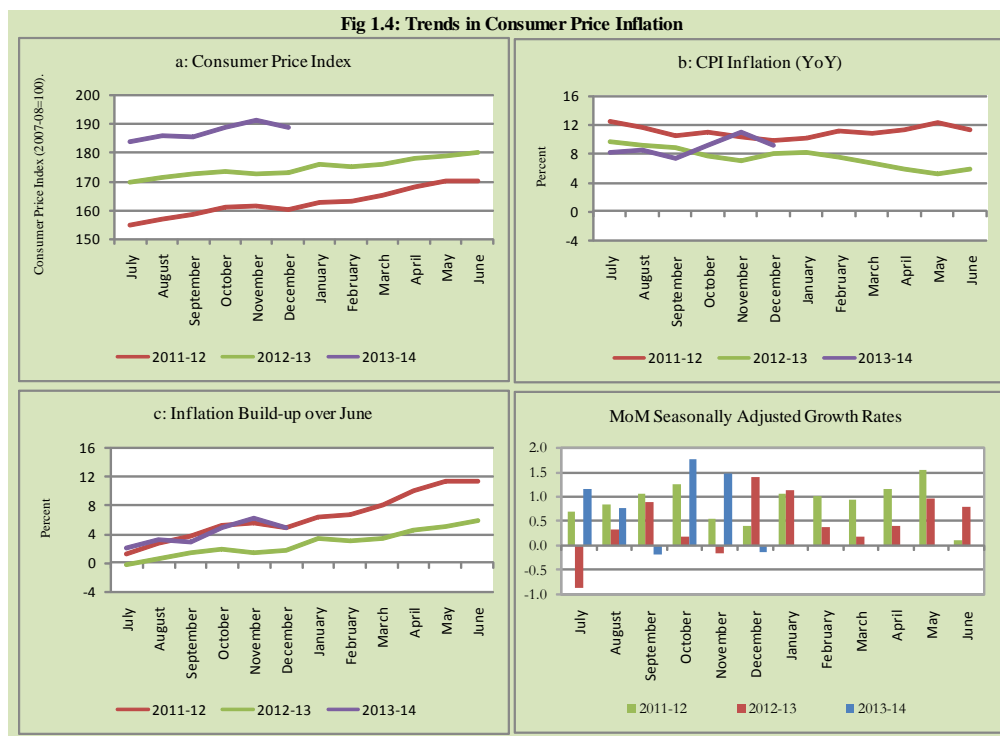


Fig 1.4: Trends in Consumer Price Inflation



2. City wise Inflation

CPI Inflation on year-on-year basis in federal and provincial capitals of Pakistan showed a mixed trend during December 2013. Among these five cities, the lowest inflation was observed in Karachi at 6.5 percent while the highest inflation was observed in Islamabad at 15.5 percent (Table A6 of annexure-A).

Table 2.1 City-wise Inflation of Selected Cities (percent)						
	Dec-12		Nov-13		Dec-13	
	MoM	YoY	MoM	YoY	MoM	YoY
Overall CPI	0.2	7.9	1.3	10.9	-1.3	9.2
Islamabad	0.0	7.4	0.5	16.0	-0.4	15.5
Karachi	0.3	8.4	1.2	8.5	-1.6	6.5
Lahore	-0.1	8.5	0.8	9.9	-1.8	8.0
Peshawar	0.4	6.4	1.9	14.1	-0.4	13.2
Quetta	-0.2	8.6	1.5	9.7	0.4	10.4

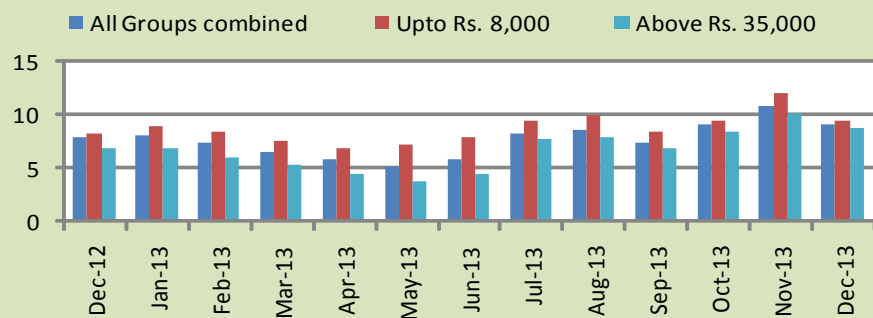
3. Income Group wise Inflation

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

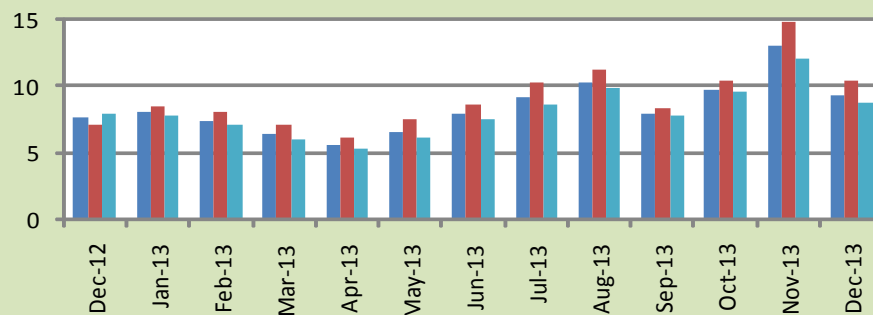
Table 3.1 Income Group- wise Inflation (YoY)									
Income Groups	General			Food			Non-food		
	Dec-12	Nov-13	Dec-13	Dec-12	Nov-13	Dec-13	Dec-12	Nov-13	Dec-13
All Groups Combined	7.9	10.9	9.2	7.7	13.0	9.3	8.1	9.4	9.1
Up to Rs. 8,000	8.2	12.1	9.4	7.1	14.9	10.5	9.6	8.5	8.1
Rs. 8,001- 12,000	9.3	11.2	8.9	7.3	14.1	9.9	11.5	8.1	7.8
Rs. 12,001- 18,000	9.1	11.9	9.7	7.5	13.6	9.6	10.6	10.2	9.8
Rs. 18,001- 35,000	7.6	11.5	9.6	7.8	13.1	9.2	7.4	10.2	9.9
Above Rs. 35,000	6.9	10.1	8.9	7.9	12.1	8.8	6.4	9.1	8.9

Fig 3.1: Income Group- wise Inflation

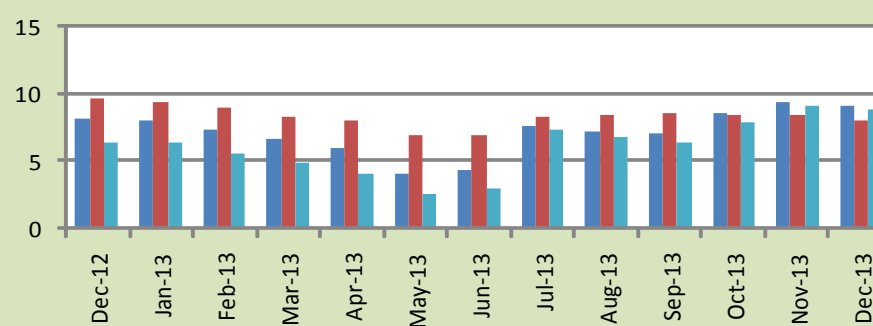
a: CPI Overall Inflation (YoY)



b: CPI Food Inflation (YoY)



c: CPI Non-Food Inflation (YoY)



4. Weighted Contribution

The weighted contribution of food group in the overall inflation decreased to 42.35 percent during December 2013 from 50.12 percent in November 2013. It was 40.58 percent in December 2012.

The weighted contribution of non-food group showed increase to touch 57.65 percent in December 2013 from 49.88 percent in November 2013.

Table 4.1 Weighted Contribution to CPI Inflation (YoY)						
Period	Food	Clothing & Footwear	Housing, Water, Elect, Gas & Other Fuel	Transport	Education	Others
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
Nov-13	50.12	9.70	22.42	6.24	2.76	8.76
Dec-13	42.35	10.02	26.60	7.26	3.33	10.44

5. Inflation Diffusion Index

Table 5.1 Inflation Diffusion Index - based on MoM change

	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13
General	49.6	51.4	37.9	39.1	40.9	44.5	48.4	58.0	53.5	51.4	53.9	49.7	50.0
Food & Non-Alcoholic Beverages	33.0	49.6	15.2	22.5	23.9	34.6	50.4	53.5	39.8	36.3	57.4	49.6	41.1
Alcoholic Beverages & Tobacco	83.3	33.3	0.0	0.0	0.0	33.3	100.0	100.0	16.7	66.7	50.0	-33.3	66.7
Clothing & Footwear	89.8	72.9	84.7	59.3	67.8	67.8	55.9	76.3	76.3	83.1	78.0	83.1	76.3
Housing, Water, Elect, Gas & other Fuels	38.9	66.7	22.2	33.3	58.3	16.7	50.0	66.7	41.7	33.3	61.1	44.4	25.0
Furnishing & Household Equip. Maintenance etc	76.8	63.8	53.6	68.1	69.6	78.3	76.8	78.3	85.5	78.3	82.6	85.5	89.9
Health	23.1	30.8	17.9	15.4	23.1	20.5	10.3	17.9	28.2	10.3	17.9	15.4	20.5
Transport	37.2	44.2	46.5	27.9	14.0	27.9	32.6	53.5	39.5	53.5	48.8	30.2	34.9
Communication	50.0	66.7	16.7	8.3	16.7	33.3	16.7	58.3	33.3	16.7	16.7	25.0	16.7
Recreation & Culture	20.5	28.2	25.6	25.6	35.9	30.8	28.2	33.3	41.0	33.3	23.1	20.5	33.3
Education	25.0	6.3	25.0	75.0	25.0	43.8	43.8	50.0	68.8	56.3	25.0	0.0	37.5
Restaurant & Hotels	100.0	83.3	100.0	66.7	50.0	83.3	66.7	100.0	100.0	100.0	83.3	83.3	100.0
Miscellaneous	65.7	51.4	51.4	57.1	54.3	60.0	57.1	60.0	65.7	74.3	40.0	62.9	57.1
NFNE	55.3	52.7	45.9	45.6	49.1	49.4	47.9	58.6	58.6	55.9	51.8	52.4	53.3

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

6. Domestic Commodity Prices

Table 6.1 Inflation in Domestic CPI Food Commodities

Sr. No	Item	Unit	Dec-12		Nov-13		Dec-13	
			YoY	MoM	YoY	MoM	YoY	MoM
1	Wheat	10 Kg	10.31	2.78	27.35	3.82	30.87	5.62
2	Wheat Flour Bag	10 Kg	10.34	0.87	25.32	2.46	26.27	1.64
3	Rice Basmati Sup. Qlty.	Kg	21.61	1.36	16.87	0.83	16.04	0.65
4	Pulse Masoor (Washed)	Kg	-5.74	-0.52	13.37	1.37	18.34	3.85
5	Pulse Moong (Washed)	Kg	-12.36	0.15	10.56	2.30	17.07	6.05
6	Pulse Mash (Washed)	Kg	-9.73	-0.40	-2.25	0.80	-0.62	1.27
7	Pulse Gram	Kg	44.45	-0.89	-30.41	-0.85	-29.24	0.78
8	Vegetable Ghee (Loose)	Kg	0.80	-0.19	-1.28	1.35	-0.17	0.93
9	Sugar Refined	Kg	-2.74	-1.30	10.38	7.42	1.69	-9.07
10	Milk Fresh (Unboiled)	Ltr	11.89	0.66	6.77	0.36	6.56	0.46
11	Tea- Tapal Danedar	200 Gm	9.98	0.00	22.75	-0.51	22.13	-0.51
12	Beef With Bone Av. Qlty.	Kg	7.04	0.16	3.40	0.09	3.48	0.24
13	Mutton Av. Qlty.	Kg	6.64	0.05	6.94	0.00	7.51	0.59
14	Chicken Farm Broiler (Live)	Kg	14.44	10.95	4.56	-5.94	7.34	13.89
15	Eggs Farm	Doz	26.53	8.41	-3.68	11.06	-4.74	7.21
16	Potatoes	Kg	21.97	-6.62	116.89	44.51	48.79	-35.94
17	Onion	Kg	-30.58	-20.55	72.83	12.33	78.24	-18.07
18	Tomatoes	Kg	-35.53	-0.58	216.48	75.81	46.97	-53.83
19	Ginger	Kg	1.52	-5.78	63.47	6.89	63.24	-5.91
20	Garlic	Kg	13.80	4.69	11.93	1.75	14.49	7.08

7. Global Commodity Prices

Table 7.1 Changes in Major Global Indices (percent)

Item/ Group	Dec-12		Nov-13		Dec-13	
	YoY	MoM	YoY	MoM	YoY	MoM
Overall	-0.8	1.0	-0.6	-1.5	0.8	2.4
Food	10.8	0.7	-5.4	-0.9	-3.5	2.7
Metals	0.3	5.8	-2.3	-0.6	-7.0	0.8
Energy	-3.5	0.4	0.7	-2.0	3.0	2.7
Agricultural Raw Material	2.4	1.0	5.8	1.5	5.3	0.6
Cotton	-12.7	3.1	4.7	-5.3	4.9	3.4

Source: IMF

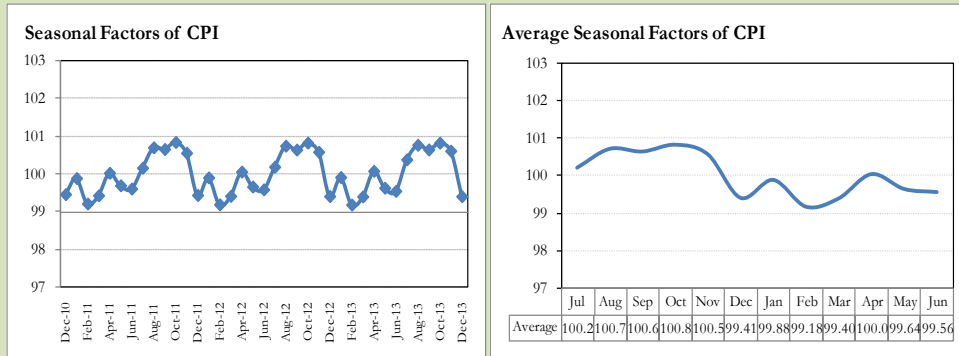
8. Seasonal Adjustment in CPI

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

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

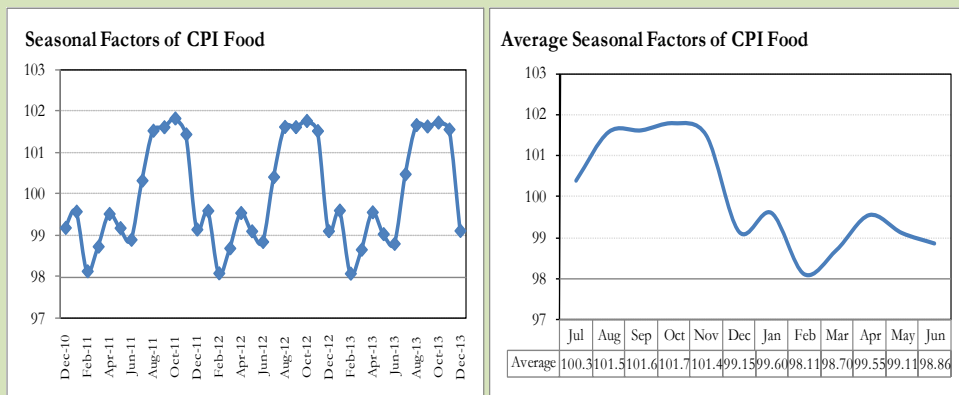
Figure 8.1 reveals that seasonality in CPI has been increasing over the period of last four years. Average seasonal factors reveal strong seasonality during the calendar year. There is an upward seasonality during the months from July to November & April and downward seasonality in the remaining months 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

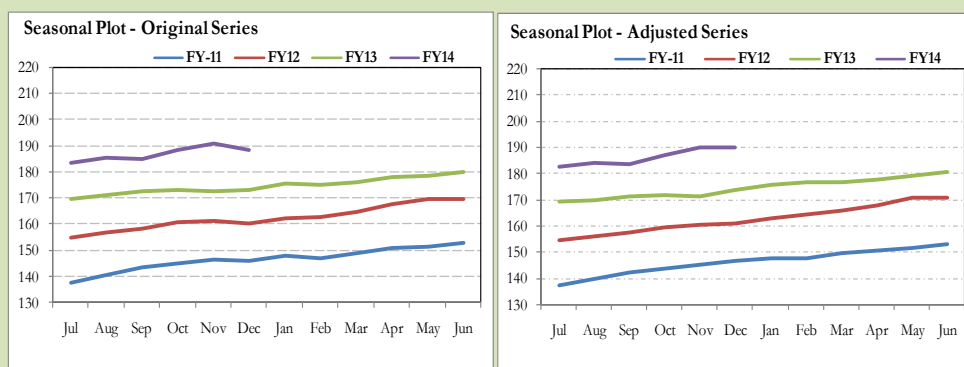
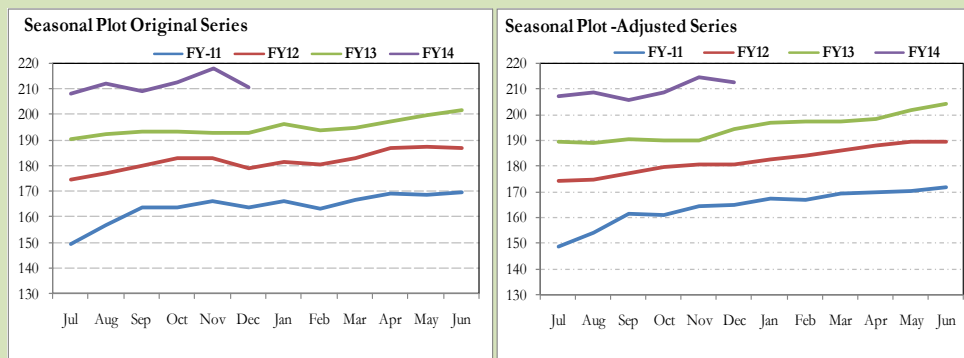


Fig. 8.4 Seasonal Plots of CPI (Food)



Seasonally adjusted CPI for December 2013 stood at 189.84 against 188.68 in original series showing an increase of 1.16 on account of adjustment of downward seasonality in December 2013.

Seasonally adjusted CPI food group for December 2013 stood at 212.76 against 210.89 in original series showing an increase of 1.87 on account of adjustment of downward seasonality in December 2013.

Month-on-month change of seasonally adjusted CPI series stood at -0.12% reflecting decrease during December 2013 over November 2013 and a decrease of 1.32% in original series.

Month-on-month change of seasonally adjusted CPI food group series stood at -0.95% reflecting decrease during December 2013 over November 2013 and a decrease of 3.33% in original series.

It is important to note that inflation rates should be analyzed on the basis of seasonally adjusted rates. This is especially needed for inflation rates on month-on-month basis. The most recent annual rate of inflation is usually indicated by annualizing the seasonally adjusted month-on-month rate. Annualized rate of CPI inflation in December 2013 (corresponding to the seasonally adjusted month-on-month rate) is -1.48 percent.

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

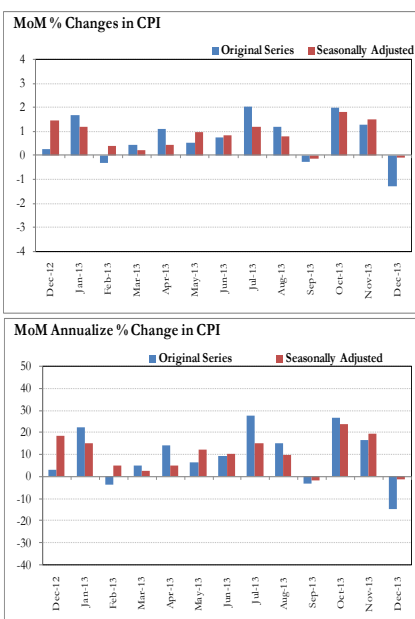
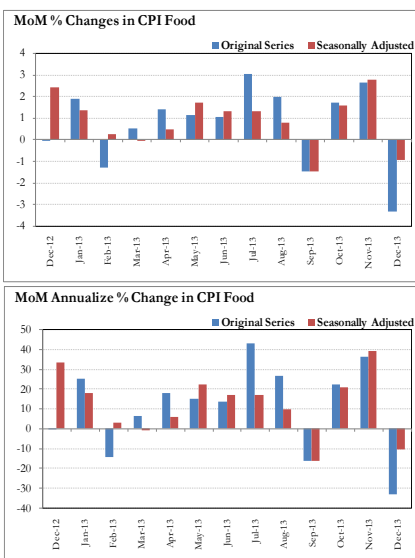


Fig. 8.6 Month-on-Month Percent Changes in CPI Food



Annexure A

Table A1: CPI Inflation by Groups (percent)							
	Weight	MoM change			YoY change		
		Dec-12	Nov-13	Dec-13	Dec-12	Nov-13	Dec-13
I. Food Group	37.5	0.0	2.6	-3.3	7.7	13.0	9.3
Food & Non-Alcoholic Beverages	34.8	-0.1	2.8	-3.7	7.2	13.0	8.9
Alcoholic Beverages & Tobacco	1.4	0.2	0.0	1.2	18.2	14.4	15.7
Restaurant & Hotels	1.2	0.7	0.9	1.1	10.7	12.3	12.7
II. Non-Food Group	62.5	0.4	0.3	0.2	8.1	9.4	9.1
Clothing & Footwear	7.6	2.0	0.9	0.2	15.8	14.0	12.0
Housing, Water, Elect, Gas & other Fuels	29.4	0.1	0.1	0.1	4.1	9.5	9.6
Furnishing & Household Equip. Maintenance etc	4.2	0.8	0.9	0.9	12.3	8.7	8.8
Health	2.2	0.4	0.4	0.7	14.3	6.2	6.4
Transport	7.2	0.2	0.0	0.0	8.9	9.0	8.8
Communication	3.2	0.1	0.0	0.1	0.6	4.8	4.8
Recreation & Culture	2.0	0.3	0.3	0.3	17.9	9.9	9.9
Education	3.9	0.1	0.0	0.3	10.0	8.5	8.7
Miscellaneous	2.8	0.4	0.6	0.4	11.3	4.6	4.5
Headline	100.0	0.2	1.3	-1.3	7.9	10.9	9.2

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)	
		Dec-12	Dec-13	Dec-12	Dec-13	Dec-12	Dec-13	Dec-12	Dec-13	Dec-12	Dec-13
I. Food Group	9.3	126	126	31	31	17	18	32	28	46	49
Food & Non-Alcoholic Beverages	8.9	114	114	31	31	16	17	28	26	39	40
Alcoholic Beverages & Tobacco	15.7	6	6	0	0	1	1	2	1	3	4
Restaurant & Hotels	12.7	6	6	0	0	0	0	2	1	4	5
II. Non-Food Group	9.1	348	348	40	57	42	55	71	110	195	126
Clothing & Footwear	12.0	59	59	1	4	1	2	5	14	52	39
Housing, Water, Elect, Gas & other Fuels	9.6	36	36	7	2	2	2	11	18	16	14
Furnishing & Household Equip. Maintenance etc	8.8	69	69	2	1	10	10	14	31	43	27
Health	6.4	39	39	11	23	5	7	5	3	18	6
Transport	8.8	43	43	2	13	5	7	12	18	24	5
Communication	4.8	12	12	5	2	2	4	2	3	3	3
Recreation & Culture	9.9	39	39	8	7	8	13	7	5	16	14
Education	8.7	16	16	4	2	3	4	3	5	6	5
Miscellaneous	4.5	35	35	0	3	6	6	12	13	17	13
Overall	9.2	474	474	71	88	59	73	103	138	241	175

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

Table A3: Top and Bottom 15 Contributors to CPI Inflation (YoY) in December 2013					
Top 15 Contributors		Weights	YoY Change		Weighted Contribution
Items/ Contributors			Dec-12	Dec-13	
Ranked by Weighted Contribution					
1	House Rent	21.81	6.27	7.86	15.10
2	Wheat Flour	4.16	10.32	26.92	12.92
3	Electricity	4.40	16.39	15.82	8.62
4	Milk Fresh	6.68	11.91	6.34	5.84
5	Onion	0.53	-30.58	78.24	4.37
6	Motor Fuel	3.03	6.19	12.69	4.17
7	Education	3.94	10.04	8.66	3.33
8	Cigarette	1.39	18.37	15.84	2.65
9	Potatoes	0.47	21.97	48.79	2.64
10	Cotton Cloth	1.73	8.01	13.07	2.30
11	Transport Services	2.70	9.72	6.33	2.11
12	Rice	1.58	14.38	11.90	2.06
13	Ready Made Food	1.23	10.66	12.70	1.99
14	Tailoring	0.88	15.60	14.79	1.70
15	Tomatoes	0.44	-35.54	46.98	1.69
Total		54.98			71.51
Bottom 15 Contributors					
1	Spices	0.54	3.09	-16.08	-1.42
2	Pulse Gram	0.24	44.45	-29.24	-1.01
3	Fresh Fruits	1.86	2.13	-3.27	-0.69
4	Besan	0.15	42.74	-26.55	-0.59
5	Gram Whole	0.16	12.36	-21.22	-0.49
6	Egg	0.46	26.53	-4.74	-0.34
7	Vegetable Ghee	2.07	3.30	-1.56	-0.33
8	Personal Equipments	0.84	14.30	-2.04	-0.29
9	Cooking Oil	1.75	11.75	-0.65	-0.12
10	Fresh Vegetable	1.69	-1.08	-0.23	-0.04
11	Pulse Mash (Washed)	0.21	-9.74	-0.61	-0.02
12	Mustard Oil	0.10	5.02	-0.49	0.00
13	Medical Equipment	0.01	13.66	5.74	0.01
14	Kerosene Oil	0.01	13.70	8.89	0.01
15	Betel Leaves & Nuts	0.02	6.36	3.98	0.01
Total		10.11			-5.30

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

<u>Top 15 Contributors</u>		<u>MoM Change</u>		Weighted Contribution	
Items/ Contributors	Weights	Nov-13	Dec-13		
Ranked by Weighted Contribution					
1	Chicken	1.36	-5.94	13.90	12.13
2	Wheat Flour	4.16	2.86	1.85	6.95
3	Egg	0.46	11.06	7.22	2.87
4	Milk Fresh	6.68	0.35	0.45	2.75
5	Wheat	0.35	3.82	5.62	1.70
6	Cigarette	1.39	0.00	1.26	1.52
7	Pulse Moong	0.23	2.30	6.05	1.33
8	Woolen Readymade Garments	0.40	2.10	4.18	1.31
9	Rice	1.58	0.19	0.98	1.18
10	Ready Made Food	1.23	0.89	1.06	1.17
11	Bakery & Confectionary	1.16	1.02	1.09	0.98
12	Personal Care	1.49	0.26	0.83	0.94
13	Woolen Cloth	0.88	1.99	1.25	0.93
14	Household Textile	0.65	1.15	1.80	0.88
15	Construction Input Item	0.56	1.56	1.69	0.83
Total		22.57			37.45
Bottom 15 Contributors					
1	Fresh Vegetable	1.69	4.20	-30.59	-53.99
2	Tomatoes	0.44	75.81	-53.83	-38.58
3	Potatoes	0.47	44.51	-35.94	-28.30
4	Onion	0.53	12.32	-18.07	-13.75
5	Sugar	1.04	7.42	-9.07	-8.07
6	Fresh Fruits	1.86	-6.80	-4.24	-5.68
7	Footwear	1.55	0.12	-3.90	-4.06
8	Tea	0.84	-0.34	-2.17	-1.82
9	Motor Fuel	3.03	-0.20	-0.36	-0.85
10	Personal Equipments	0.84	1.21	-0.51	-0.44
11	Gur	0.02	1.04	-9.95	-0.24
12	Beverages	1.20	0.83	-0.01	-0.01
13	Betel Leaves & Nuts	0.02	-0.55	-0.18	0.00
14	Motor Vehicle Tax	0.11	0.00	0.00	0.00
15	Gas	1.58	0.00	0.00	0.00
Total		15.22			-155.79

Table A3.2: Top Fifteen Contributors to CPI Inflation (YoY) in December 2013					
Items/ Contributors		Weights	YoY Change		Weighted Contribution
			Dec-12	Dec-13	
A. Ranked by Percentage Change					
1	Onion	0.53	-30.58	78.24	4.37
2	Potatoes	0.47	21.97	48.79	2.64
3	Tomatoes	0.44	-35.54	46.98	1.69
4	Wheat	0.35	10.30	30.87	1.20
5	Wheat Product	0.10	6.26	27.29	0.28
6	Wheat Flour	4.16	10.32	26.92	12.92
7	Postal Services	0.07	5.27	24.42	0.18
8	Pulse Masoor	0.27	-6.86	18.15	0.44
9	Cosmetics	0.39	6.10	17.81	0.65
10	Pulse Moong	0.23	-12.36	17.07	0.54
11	Cigarette	1.39	18.37	15.84	2.65
12	Electricity	4.40	16.39	15.82	8.62
13	Text Books	0.57	40.53	15.60	1.30
14	Tailoring	0.88	15.60	14.79	1.70
15	Sewing Needle & Dry Cell	0.15	9.99	14.01	0.20
Total		14.40			39.38
B. Ranked by Weights					
1	House Rent	21.81	6.27	7.86	15.10
2	Milk Fresh	6.68	11.91	6.34	5.84
3	Electricity	4.40	16.39	15.82	8.62
4	Wheat Flour	4.16	10.32	26.92	12.92
5	Education	3.94	10.04	8.66	3.33
6	Communication & Apparatus	3.15	0.47	4.22	1.03
7	Motor Fuel	3.03	6.19	12.69	4.17
8	Transport Services	2.70	9.72	6.33	2.11
9	Meat	2.43	6.91	4.81	1.61
10	Vegetable Ghee	2.07	3.30	-1.56	-0.33
11	Fresh Fruits	1.86	2.13	-3.27	-0.69
12	Cooking Oil	1.75	11.75	-0.65	-0.12
13	Cotton Cloth	1.73	8.01	13.07	2.30
14	Fresh Vegetable	1.69	-1.08	-0.23	-0.04
15	Rice	1.58	14.38	11.90	2.06
Total		63.00			57.92
Note: Weighted contribution is estimated by multiplying the weights by the price change of an item; this is then reported as a share in YoY change in CPI, which is 9.2 percent in December, 2013.					

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

Table 1: Top 10 Contributors to CPI Food Inflation (2012) in December 2013					
Items/ Contributors		Weights	YoY Change		Weighted Contribution
			Dec-12	Dec-13	
A. Ranked by Weighted Contribution					
1	Wheat Flour	4.16	10.32	26.92	12.92
2	Milk Fresh	6.68	11.91	6.34	5.84
3	Onion	0.53	-30.58	78.24	4.37
4	Cigarette	1.39	18.37	15.84	2.65
5	Potatoes	0.47	21.97	48.79	2.64
6	Rice	1.58	14.38	11.90	2.06
7	Ready Made Food	1.23	10.66	12.70	1.99
8	Tomatoes	0.44	-35.54	46.98	1.69
9	Bakery & Confectionary	1.16	8.52	12.64	1.62
10	Meat	2.43	6.91	4.81	1.61
Total		20.07			37.39
B. Ranked by Percentage Change					
1	Onion	0.53	-30.58	78.24	4.37
2	Potatoes	0.47	21.97	48.79	2.64
3	Tomatoes	0.44	-35.54	46.98	1.69
4	Wheat	0.35	10.30	30.87	1.20
5	Wheat Product	0.10	6.26	27.29	0.28
6	Wheat Flour	4.16	10.32	26.92	12.92
7	Pulse Masoor	0.27	-6.86	18.15	0.44
8	Pulse Moong	0.23	-12.36	17.07	0.54
9	Cigarette	1.39	18.37	15.84	2.65
10	Tea	0.84	8.59	13.40	1.55
Total		8.78			28.29
C. Ranked by Weights					
1	Milk Fresh	6.68	11.91	6.34	5.84
2	Wheat Flour	4.16	10.32	26.92	12.92
3	Meat	2.43	6.91	4.81	1.61
4	Vegetable Ghee	2.07	3.30	-1.56	-0.33
5	Fresh Fruits	1.86	2.13	-3.27	-0.69
6	Cooking Oil	1.75	11.75	-0.65	-0.12
7	Fresh Vegetable	1.69	-1.08	-0.23	-0.04
8	Rice	1.58	14.38	11.90	2.06
9	Cigarette	1.39	18.37	15.84	2.65
10	Chicken	1.36	14.43	7.34	1.08
Total		24.99			24.99
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 9.3 percent in December, 2013.					

Table A3.4: Top Ten Contributors to CPI Non-food Inflation (YoY) in December 2013					
Items/ Contributors		Weights	YoY Change		Weighted Contribution
			Dec-12	Dec-13	
A. Ranked by Weighted Contribution					
1	House Rent	21.81	6.27	7.86	15.10
2	Electricity	4.40	16.39	15.82	8.62
3	Motor Fuel	3.03	6.19	12.69	4.17
4	Education	3.94	10.04	8.66	3.33
5	Cotton Cloth	1.73	8.01	13.07	2.30
6	Transport Services	2.70	9.72	6.33	2.11
7	Tailoring	0.88	15.60	14.79	1.70
8	Footwear	1.55	20.96	9.25	1.35
9	Text Books	0.57	40.53	15.60	1.30
10	Ready Made Garment	0.97	16.49	11.93	1.28
Total		41.59			41.27
B. Ranked by Percentage Change					
1	Postal Services	0.07	5.27	24.42	0.18
2	Cosmetics	0.39	6.10	17.81	0.65
3	Electricity	4.40	16.39	15.82	8.62
4	Text Books	0.57	40.53	15.60	1.30
5	Tailoring	0.88	15.60	14.79	1.70
6	Sewing Needle & Dry Cell	0.15	9.99	14.01	0.20
7	Woolen Readymade Garments	0.40	26.08	13.11	0.60
8	Cotton Cloth	1.73	8.01	13.07	2.30
9	Motor Fuel	3.03	6.19	12.69	4.17
10	Doctor (MBBS) Clinic Fee	0.59	19.93	12.64	0.92
Total		12.20			20.64
C. Ranked by Weights					
1	House Rent	21.81	6.27	7.86	15.10
2	Electricity	4.40	16.39	15.82	8.62
3	Education	3.94	10.04	8.66	3.33
4	Communication & Apparatus	3.15	0.47	4.22	1.03
5	Motor Fuel	3.03	6.19	12.69	4.17
6	Transport Services	2.70	9.72	6.33	2.11
7	Cotton Cloth	1.73	8.01	13.07	2.30
8	Gas	1.58	-42.09	7.05	0.94
9	Footwear	1.55	20.96	9.25	1.35
10	Personal Care	1.49	10.10	7.14	1.21
Total		45.39			40.17
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 9.1 percent in December, 2013.					

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

Groups	Decrease or no change	Subdued increase (Greater than 0% but less than 5%)	Moderate increase (5% but less than 10%)	Double digit increase (10% or more)
Food & Non-Alcoholic Beverages	Chillies Powd.National 200 Gm, Pulse Gram, Peas, Besan Av. Qlty., Guava, Cauliflower, Gram Whole Black Av Qlty.	Squash-Mitchelles, Kinnu, Pepper Black National, Pickles Ahmed/Mitchelles, Beef With Bone Av. Qlty., Dates Av.Qlty.	Rusk (Papay), Rice Basmati Broken Av.Qlty, Cloves Loose Av.Qlty, Ice, Mineral Water Nestle 1.5 Litre, Fish-Rahu Medium Size, Curd	Onion, Ginger, Potatoes, Tomatoes, Ice Cream Walls, Chillies Green, Wheat, Wheat Flour Fine/Superior, Suji, Maida, Wheat Flour Avg. Qlty, Pistachio Av.Qlty., Wheat Flour Bag, Tapal Danedar Tea 200 Gm, Pastry Av.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, Child Shoe Power Lite Bata	Pullover Ladies Oxford/Bon, Shoe Repair Half Sole	Dopatta Georgette Av.Qlty, School Uni. Pant, Shirt Boys, Sewing Thread/Reel, School Uni. Kameez- Shal Boys, Foot Wear Local (Female), Sports Shoes	Gents Shoes Paul Bata, Secondhand Winter Jacket, Tailoring Suit (Female), Shoe Polish Charges Avg. Shirt Boy 24"/26" Length, Gents Sandal Bata, Shirting Av.Qlty., Brassier Av.Qlty, Frock W/Wear Girls, Pullover (Gents) Others Av.Qlty, Chaddar (W/Wear) (2X2.5 Mtr)
Housing, Water, Elect, Gas & other Fuels	Elect. Charges Upto 50 Units, Elect. Charges 01 - 100 Units	Iron Bar (M.S. Bar) 1/2", Bajree	Carpenter Wage Rate, Water Charges Per House, Electrician Wage Rate(P/Day), Kerosene Oil, House Rent For Q-I, House Rent For Q-II	Elect. Charges 301 - 1000 Units, Elect. Charges 101 - 300 Units, Electrician Wage Rate (P/Pnt), Elect. Charges Overall/ Combined, Elect. Charges Above 1000 Units, Synthetic Enemal Robialac, Timber Shesham Log
Furnishing & Household Equip. Maintenance etc	Air conditioner 1.5 Ton PEL	Thermos Starvac 1 Ltr, Sewing Machine (Singer), Washing Machine (Singer), Gizer Large Size 30 Gallon, Toilet Paper Roll (R.Petal)	Single Bed Without Foam, Pressure Cooker 4 Ltr. Table Spoon S. Steel Sup. Qlty, Bucket(Balti) Plastic Med, Almirah (Steel)	Match Box (Small), Boot Polish Cherry/Kiwi 50 Ml, Washing Powder (Wheel/ Bonus), Cleanser Powder Vim 1000 Gms, Finis 500 Ml, Robin Blue (35 Gm), Tea Set Pak. China Wear 21 Pcs, Chair Shesham Wood, Water Set Jug+6 Glasses
Health	Flagyl Tab. 200 Mg., Polyfax Eye Ointment, Calcium Syrup Sandoz, Burnol Cream 30 Gm, Amoxil Capsule 250 Mg.	Blood Test (Cp) Charges, Thermometer China, Dettol (Medium), Sugar Test (Random/Fasting), ECG Charges, Cac. 1000 Tab	Urine Test (Dr) Charges, Cotton Bandage 2" - 4", Ear Drops (Cardisporine)	Galxos-D (450 Gm), Jouhar Joshanda, Saniplast (1 Putty), Doctor (MBBS) Clinic Fee, X-Ray (Chest) Charges, Phenergan Syrup 120 Ml.
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.	Bus Fare Outside City (A/C), Car Toyota 1300 CC, Full Tonga Charges, Motorcycle Honda CD-70, Bus Fare Max (Within City)	Car Service Charges, Suzuki Fare Min.Within City, Car Suzuki 800 CC (W/O. AC), Tyre Car With Tube General, Tyre Cycle	CNG, Bus Fare Outside City (Non A/C), Minibus Fare Min.Within City, Cycle Overhauling Charges, Petrol Super
Communication	Postal Envelope Domestic, Mobile Cell Charges	Internet Charges, Telephone Set Av. Qlty, Postal Envelope For Saudi Arabia, Mobile Set Nokia/Sony/Ericsson Av.Qlty	Fax Charges (Local), Telephone Charges Local Call, Telephone Charges Outside City	U.M.S. Reg Charges Min., T.C.S. Ch. Min.Within Zone, Postal Registration Charges
Recreation & Culture	English Book BA/B.Sc, Maths Book Ist. Year (T.B. Board), T.V. 20" Colored Sony, V.C.P. Panasonic/LG/National, TV License Fee Domestic	Pencil Goldfish/Deer, Fountain Pen Hero/Wings/China, Photostat Paper 70 Gm, T.V 20" Color China/Korea, Video Cassette Blank. Tdk/Sony	Urdu Book Ist Year/ Inter, Exercise Book Lined 80/10, Personnel Computer (Branded), Paper Fool Scape (27"X17"), Ball Pen (Local)	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, Pakistan Studies Book BA/B.Sc, Eng. Book Ist. Yr Complete Set, Pen Ink Dollor 57 Ml Bottle
Education	Coaching Charges For Class XI/ XII Commerce Group	Coaching Fee For Class IX/ X, Pvt School Fee Eng. Med (Class-V), Pvt School Fee Eng. Med (Class-VI), MBA Govt. Engg. Coll. Fee Ist Year	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), Tea Prepared (Ordinary), Bread Tandoori St. Size, Cooked Mutton (Av. Hotel), Cooked Dal (Av. Hotel)
Miscellaneous	Toothpaste Med Size Colgate 70Gm, Silver Tezabi 24 Ct, Gold Tezabi 24 Ct	Gel Medium Size, Toilet Soap Safeguard Bath Size, Talc Powder Viceroy/ Black Cat	Toothpowder Dentonic 90 Gm, Beauty Parlor Hair Style Charges, Hair Removing Cream (EU-Cream)	Perfume Med. Size Medora/Broche, Toilet Soap Lux 95 Gm, Purse Ladies (Leather) Av. Qlty, Shaving Charges, Artificial Jewellery Set, Beauty Cream (Fair & Lovely)

Table A5: City- wise CPI Inflation by Income Groups, December 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	10.7	-3.9	11.2	0.7	9.9	-1.6	10.9	-3.8	11.2	0.9	10.5
2 Islamabad	-1.8	14.3	-3.8	11.7	0.9	17.6	-1.3	14.1	-3.1	11.7	0.7	16.8
3 Lahore	-2.9	7.9	-5.4	9.5	0.9	5.8	-2.7	7.9	-5.1	9.6	0.5	5.9
4 Gujranwala	-3.0	6.7	-6.0	5.5	1.2	8.4	-2.7	6.6	-5.6	5.2	0.8	8.2
5 Sialkot	-2.9	7.2	-5.1	6.2	0.1	8.7	-2.3	7.2	-4.2	5.9	-0.1	8.7
6 Faisalabad	-3.4	10.2	-6.1	8.8	0.3	12.0	-2.9	9.7	-5.6	8.1	0.2	11.6
7 Multan	-2.7	8.2	-4.9	8.9	0.2	7.4	-2.7	7.9	-5.1	8.3	0.1	7.4
8 Sargodha	-4.7	9.2	-7.9	9.4	-0.8	9.0	-4.0	9.0	-7.2	9.1	-0.7	8.9
9 Bahawalpur	-2.0	9.7	-3.7	10.3	0.1	8.9	-1.3	9.2	-2.6	9.7	0.1	8.8
10 Karachi	-2.3	6.5	-4.2	7.6	0.5	5.0	-2.4	6.1	-4.6	6.5	0.4	5.5
11 Hyderabad	-2.4	8.6	-4.0	11.2	0.0	5.1	-2.3	8.1	-4.1	10.4	0.0	5.4
12 Sukkur	-2.1	10.4	-3.6	11.8	-0.2	8.6	-1.8	10.0	-3.3	11.3	-0.2	8.5
13 Larkana	-1.7	14.2	-3.1	14.3	0.1	14.0	-1.4	13.9	-2.9	14.3	0.1	13.6
14 Peshawar	-1.0	13.8	-1.9	14.7	0.2	12.8	-0.5	13.1	-1.3	13.9	0.3	12.3
15 Bannu	-2.4	8.1	-4.0	10.1	-0.4	5.7	-2.0	7.6	-3.6	9.6	-0.2	5.6
16 Quetta	0.6	12.9	1.2	16.2	-0.1	8.7	0.5	11.6	1.2	14.8	-0.2	8.0
17 Khuzdar	0.2	8.0	0.4	11.2	0.0	4.3	0.3	7.8	0.5	10.8	0.1	4.8
	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	-1.7	10.9	-4.0	11.1	0.5	10.8	-1.6	10.7	-4.2	10.7	0.5	10.7
2 Islamabad	-1.2	15.3	-3.0	11.6	0.6	19.2	-1.2	17.0	-3.4	11.5	0.7	21.9
3 Lahore	-2.5	7.8	-4.7	9.5	0.1	6.0	-2.1	8.0	-4.3	9.5	0.1	6.7
4 Gujranwala	-2.6	6.2	-5.1	5.0	0.1	7.5	-2.1	6.5	-4.6	5.0	0.2	7.9
5 Sialkot	-2.3	7.4	-3.9	6.5	-0.6	8.4	-1.7	7.8	-3.3	6.4	-0.4	9.0
6 Faisalabad	-2.7	9.7	-5.2	7.8	-0.1	11.8	-2.0	9.7	-4.4	7.8	0.2	11.5
7 Multan	-2.5	7.8	-4.7	8.1	-0.2	7.5	-2.2	7.7	-4.7	7.6	-0.1	7.9
8 Sargodha	-3.9	8.9	-7.1	9.2	-0.8	8.6	-3.5	8.8	-6.9	9.2	-0.7	8.5
9 Bahawalpur	-1.0	9.1	-2.0	9.7	0.0	8.7	-0.4	8.3	-1.2	9.5	0.1	7.4
10 Karachi	-2.4	6.0	-4.7	6.2	0.1	5.7	-2.0	6.3	-4.5	6.3	0.3	6.3
11 Hyderabad	-2.4	7.8	-4.2	10.0	-0.3	5.4	-2.1	7.6	-4.1	9.6	-0.2	5.9
12 Sukkur	-1.7	9.6	-3.0	10.8	-0.3	8.4	-1.3	9.0	-2.6	9.7	-0.2	8.3
13 Larkana	-1.3	14.3	-2.7	14.5	0.0	14.0	-1.0	14.0	-2.4	14.5	0.1	13.6
14 Peshawar	-0.5	13.1	-1.4	13.8	0.3	12.4	-0.5	12.7	-1.3	13.0	0.3	12.5
15 Bannu	-2.1	8.0	-3.7	10.0	-0.5	6.2	-2.1	7.7	-3.9	9.2	-0.4	6.5
16 Quetta	0.5	10.8	1.1	13.1	-0.1	8.4	0.4	10.2	0.9	11.9	-0.1	8.7
17 Khuzdar	0.3	7.3	0.5	10.2	0.1	4.7	0.4	7.5	0.7	10.2	0.1	5.3
	Above Rs 35000						Combined					
	General		Food		Non-Food		General		Food		Non-Food	
	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY
1 Rawalpindi	-0.7	10.7	-3.1	10.7	0.5	10.7	-1.1	10.6	-3.6	10.7	0.7	10.6
2 Islamabad	-0.3	15.6	-2.1	11.4	0.6	17.8	-0.4	15.5	-2.4	11.4	1.1	18.7
3 Lahore	-1.3	8.1	-3.5	9.4	0.1	7.4	-1.8	8.0	-4.2	9.5	0.2	6.8
4 Gujranwala	-1.5	6.3	-4.0	5.0	-0.1	7.0	-2.1	6.5	-4.8	5.1	-0.1	7.5
5 Sialkot	-1.2	7.8	-2.6	6.5	-0.5	8.5	-1.7	7.6	-3.3	6.4	-0.5	8.5
6 Faisalabad	-1.2	9.9	-3.5	7.4	0.1	11.2	-2.1	9.8	-4.8	7.9	-0.2	11.3
7 Multan	-1.1	7.4	-3.3	7.3	0.0	7.4	-1.9	7.6	-4.3	7.8	-0.1	7.5
8 Sargodha	-2.7	8.8	-6.6	8.9	-0.9	8.7	-3.5	8.9	-7.0	9.2	-1.2	8.7
9 Bahawalpur	-0.1	7.9	-0.4	9.3	0.0	7.2	-0.8	8.7	-1.9	9.7	0.0	8.0
10 Karachi	-1.2	6.8	-3.8	6.5	0.2	6.9	-1.6	6.5	-4.2	6.4	0.5	6.5
11 Hyderabad	-1.6	6.5	-3.7	8.6	-0.4	5.3	-2.0	7.4	-4.0	9.6	-0.5	5.7
12 Sukkur	-0.8	8.1	-1.8	8.8	-0.2	7.8	-1.4	9.2	-2.7	10.3	-0.5	8.5
13 Larkana	-0.7	12.7	-2.1	13.2	0.0	12.5	-1.2	13.9	-2.6	14.3	-0.2	13.6
14 Peshawar	-0.2	13.3	-1.0	12.7	0.2	13.5	-0.4	13.2	-1.3	13.5	0.2	12.9
15 Bannu	-1.3	5.8	-2.6	8.5	-0.7	4.5	-2.0	7.6	-3.6	9.6	-0.8	6.3
16 Quetta	0.3	9.4	1.0	10.9	0.0	8.7	0.4	10.4	1.0	12.6	0.0	8.9
17 Khuzdar	0.2	4.6	0.7	7.4	-0.1	3.2	0.3	7.5	0.5	10.3	0.1	5.7

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

	High inflation cities				Low inflation cities		
	General	Food	Non-food		General	Food	Non-food
Islamabad	15.5	11.4	18.7	Abbotabad	9.1	10.7	8.0
Larkana	13.9	14.3	13.6	Rahim Yar Khan	9.0	8.1	9.8
Mianwali	13.8	12.4	14.7	D.G. Khan	9.0	9.8	8.4
Mingora	13.4	12.2	14.1	Gawadar	8.9	10.8	7.7
Peshawar	13.2	13.5	12.9	Sargodha	8.9	9.2	8.7
Dera Mrd.Jamali	12.9	14.9	11.5	Jehlum	8.8	8.4	9.1
Mithi	12.3	9.3	14.2	Wazirabad	8.8	7.9	9.4
Mardan	12.1	10.9	12.8	Muzaffargarh	8.7	8.1	9.2
Jhang	11.3	10.6	11.7	Bahawalpur	8.7	9.7	8.0
Turbat	11.2	11.1	11.3	Lahore	8.0	9.5	6.8
Rawalpindi	10.6	10.7	10.6	Nawabshah	7.9	6.8	8.6
D. I. Khan	10.6	13.1	8.9	Multan	7.6	7.8	7.5
Quetta	10.4	12.6	8.9	Mirpur Khas	7.6	9.1	6.6
Attock	10.4	14.2	7.7	Sialkot	7.6	6.4	8.5
Loralai & Cantt	9.9	13.6	7.4	Bannu	7.6	9.6	6.3
Faisalabad	9.8	7.9	11.3	Khuzdar	7.5	10.3	5.7
Sahiwal	9.4	8.5	9.9	Dadu	7.4	8.7	6.5
Sukkur	9.2	10.3	8.5	Hyderabad	7.4	9.6	5.7
				Bahawalnagar	6.5	7.2	6.0
				Gujranwala	6.5	5.1	7.5
				Karachi	6.5	6.4	6.5
				Vehari	5.5	5.4	5.6

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

Table A7: Income Group-wise Inflation (percent)						
	MoM			YoY		
	Dec-12	Nov-13	Dec-13	Dec-12	Nov-13	Dec-13
<u>Up to Rs. 8000</u>						
General	0.1	2.1	-2.2	8.2	12.1	9.4
Food	-0.2	3.3	-4.0	7.1	14.9	10.5
Non-food	0.6	0.4	0.2	9.6	8.5	8.1
<u>Rs. 8001- 12000</u>						
General	0.2	1.8	-1.9	9.3	11.2	8.9
Food	-0.1	3.1	-3.8	7.3	14.1	9.9
Non-food	0.5	0.3	0.2	11.5	8.1	7.8
<u>Rs. 12001- 18000</u>						
General	0.2	1.6	-1.7	9.1	11.9	9.7
Food	-0.1	2.9	-3.6	7.5	13.6	9.6
Non-food	0.5	0.3	0.2	10.6	10.2	9.8
<u>Rs. 18001- 35000</u>						
General	0.2	1.4	-1.5	7.6	11.5	9.6
Food	0.0	2.7	-3.4	7.8	13.1	9.2
Non-food	0.4	0.3	0.2	7.4	10.2	9.9
<u>Above Rs. 35000</u>						
General	0.3	0.9	-0.9	6.9	10.1	8.9
Food	0.1	2.2	-2.9	7.9	12.1	8.8
Non-food	0.4	0.3	0.2	6.4	9.1	8.9
<u>All income groups</u>						
General	0.2	1.3	-1.3	7.9	10.9	9.2
Food	0.0	2.6	-3.3	7.7	13.0	9.3
Non-food	0.4	0.3	0.2	8.1	9.4	9.1

Table A8: SPI Item-wise Price Movements

Sr.No.	Items	Unit	Prices Dec-13	Percentage change	
				YoY	MoM
1	Wheat	10Kg.	397.4	30.0	3.8
2	Wheat Flour Bag	10Kg.	424.6	23.6	0.9
3	Rice Basmati Broken	Kg.	74.5	8.9	-0.8
4	Rice Irri-6	Kg.	54.2	10.2	1.3
5	Bread Plain Med. Size (340-400 Gm.)	Each	40.0	17.1	2.5
6	Beef	Kg.	283.4	5.7	0.5
7	Mutton	Kg.	556.5	8.6	0.5
8	Chicken Live (Farm)	Kg.	160.4	11.5	18.8
9	Milk Fresh	Litr	69.1	6.4	0.5
10	Curd	Kg.	81.1	7.6	0.2
11	Milk Powdered Nido	500G	298.7	3.0	0.1
12	Egg Hen (Farm)	Doz.	118.0	-4.9	4.3
13	Mustard Oil	Kg.	185.4	-0.4	1.3
14	Cooking Oil (Tin)	2.5Ltr	537.2	1.8	-0.1
15	Veg. Ghee (Tin)	2.5Kg.	510.8	-1.5	0.0
16	Veg. Ghee Loose	Kg.	161.9	2.0	0.8
17	Bananas	Doz.	53.8	-1.0	0.7
18	Masoor Pulse Washed	Kg.	121.5	24.8	4.5
19	Moong Pulse Washed	Kg.	134.1	20.0	4.5
20	Mash Pulse Washed	Kg.	132.6	0.2	1.3
21	Gram Pulse Washed	Kg.	72.9	-29.1	2.4
22	Potatoes	Kg.	38.8	44.7	-35.3
23	Onions	Kg.	45.5	72.2	-22.7
24	Tomatoes	Kg.	56.6	22.9	-51.1
25	Sugar	Kg.	54.1	2.0	-8.1
26	Gur	Kg.	81.7	10.9	-5.9
27	Salt Powdered Loose (Lahori)	Kg.	9.3	7.2	0.3
28	Red Chilies Powder Loose	Kg.	217.4	-13.5	0.5
29	Garlic	Kg.	137.6	11.6	1.9
30	Tea (Yellow Label)	200Gm.	158.6	10.0	-6.4
31	Cooked Beef Plate	Each	78.3	13.9	1.8
32	Cooked Dal Plate	Each	45.5	13.9	0.7
33	Tea Prepared (Sada)	Cup	17.0	12.1	2.3
34	Cigarettes K-2 (20'S)	20'S	38.1	17.8	0.9
35	Long Cloth (Coarse Latha)	Mtr.	172.7	17.0	0.3
36	Shirting	Mtr.	143.4	17.9	0.5
37	Lawn	Mtr.	189.8	18.1	0.0
38	Georgette (Voil Printed)	Mtr.	110.9	10.3	0.2
39	Sandal Gents Bata	Pair	674.0	35.1	3.9
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	7.8	0.0
45	Firewood	40Kg	538.8	9.2	1.5
46	Energy Savor 14 Watts	Each	162.3	8.1	0.3
47	Washing Soap (200-250 Gm.)	Cake	23.6	12.0	1.1
48	Match Box	Each	1.5	36.7	5.7
49	Petrol	Litr	114.1	10.2	0.0
50	Diesel	Litr	118.0	6.4	0.0
51	L.P.G.(11 Kg Cylinder.)	Each	1550.1	-10.4	-2.2
52	Tele. Local Call	Call	3.9	9.7	0.0
53	Bath Soap Lifebuoy (Standard)	Cake	36.0	12.5	0.0
Maximum				72.2	18.8
Median				10.0	0.5
Minimum				-29.1	-51.1

Table A9: Distribution of Price Changes (YoY) - WPI Items: December 2013				
Groups	Decrease or no change	Subdued increase (Greater than 0% but less than 5%)	Moderate increase (5% but less than 10%)	Double digit increase (10% or more)
Agriculture Forestry & Fishery Products	Fresh Fruits, Pulses, Other Oil Seeds, Eggs, Sugar Crops	Milk from Bovine Animals, Cotton Seeds	Fuel Wood in Logs, Rice, Maize, Hides and Fur Skins- Raw, Poultry	Stimulant and Spice Crops, Edible Roots/Potatoes, Fish Live Fresh or Chilled, Wheat, Sorghum/Jowar, Vegetables, Fibre Crops, Dry Fruits, Raw Animal Material/Wool, Millet/Bajra, Unmanufactured Tobacco
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, Dried Fruits & Nuts, Chocolate	Meat of Animals, Blended Yarn, Silk and Rayon Fabrics, Vegetable Oil Refined, Vegetables & Fruit Juices, Cotton Yarn, Sugar Confectionary, Vegetable Ghee, Nylon Yarn, Synthetic Carpets, Sugar Refined, Processed Liquid Milk, Footwear	Other Fabrics, Mineral Water, Cotton Fabrics, Woolen Carpets, Oil Cakes, Dairy Products N.E.C, Fruit Juices, Hosiery Products	Other Leather N.E.C, Leather without Hairs, Wheat Flour, Ice Cream, Bed Sheets, Tobacco Products, Towels, Coffee and Tea, Milk and Cream in Solid Form, Ready Made Garments, Quilts, Beverages, Blankets, Woven Fabrics
Other Transportable Goods except Metal Products, Machinery and Equipments	Medicines, Coke	Mobil Oil, Dying Materials, Auto Tyres, Fertilizers	Furnace Oil, Cement, Kerosene Oil, Printing Paper, Glass Sheets, Ceramics and Sanitary, Soaps & Detergent, Matches, Diesel Oil, Bed Foams, Plastic Products	Hard Board, Timber, Pesticides, Insecticides, Bricks Blocks and Tiles, Paints & Varnishes, Other Glass Articles, Motor Sprit, Chemicals
Metal Product Machinery & Equipment	Pig Iron, Engines and Motors, Vacuum Pumps, Concrete Mixer	Air Conditioners, Chuff Cutter, Bicycles, Motor Cycles, Radio and Television	Lighting Equipments, Electrical Wires, Motor Vehicles, Steel Bars & Sheets, Steel Products	Lathe Machines, Cultivators, Tractors, Pipe Fittings, Refrige,Wash& Sew Mach,Iron,Fan

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

Items and specification	Weights	Index		
		Dec-12	Nov-13	Dec-13
General	100.00	172.82	191.21	188.68
Food & Non-Alcoholic Beverages.	34.83	192.71	217.89	209.87
1 Wheat	0.35	178.02	220.58	232.97
2 Wheat Flour	4.16	182.83	227.82	232.04
3 Wheat Product	0.10	172.08	210.03	219.04
4 Besan	0.15	233.96	169.37	171.84
5 Rice	1.58	173.83	192.63	194.51
6 Cereals	0.16	204.56	228.10	229.43
7 Bakery & Confectionary	1.16	175.69	195.75	197.89
8 Nimco	0.46	197.49	217.02	220.68
9 Meat	2.43	219.05	228.77	229.58
10 Chicken	1.36	172.35	162.43	185.00
11 Fish	0.30	196.55	210.55	213.01
12 Milk Fresh	6.68	218.75	231.57	232.61
13 Milk Product	0.63	210.59	226.42	227.69
14 Milk Powder	0.11	184.69	198.67	199.29
15 Egg	0.46	248.60	220.88	236.82
16 Mustard Oil	0.10	160.99	158.69	160.20
17 Cooking Oil	1.75	162.59	161.02	161.53
18 Vegetable Ghee	2.07	160.41	157.09	157.90
19 Dry Fruits	0.25	209.67	225.01	227.99
20 Fresh Fruits	1.86	180.16	181.97	174.26
21 Pulse Masoor	0.27	142.02	161.86	167.79
22 Pulse Moong	0.23	215.75	238.17	252.58
23 Pulse Mash (Washed)	0.21	192.21	188.64	191.03
24 Pulse Gram	0.24	231.20	162.33	163.60
25 Gram Whole	0.16	224.64	175.32	176.98
26 Beans	0.03	215.10	235.84	237.14
27 Potatoes	0.47	183.63	426.51	273.22
28 Onion	0.53	166.58	362.39	296.92
29 Tomatoes	0.44	129.72	412.96	190.66
30 Fresh Vegetable	1.69	183.99	264.46	183.57
31 Sugar	1.04	192.72	215.52	195.97
32 Gur	0.02	222.46	278.99	251.24
33 Honey	0.04	252.31	262.05	270.31
34 Sweet Meet	0.25	206.12	221.10	221.74
35 Beverages	1.20	168.52	189.74	189.72
36 Jam, Tomato Ketchup & Pickle	0.25	178.89	189.16	190.20
37 Condiments	0.27	213.27	222.38	226.94
38 Spices	0.54	256.95	214.54	215.63
39 Tea	0.84	218.28	253.04	247.54
Alcoholic Beverages, Tobacco	1.41	191.04	218.24	220.95
40 Cigarette	1.39	191.16	218.68	221.44
41 Betel Leaves & Nuts	0.02	183.89	191.56	191.21
Clothing & Footwear	7.57	175.58	196.25	196.57
42 Cotton Cloth	1.73	161.67	182.05	182.80
43 Woolen Cloth	0.88	195.87	215.22	217.90
44 Ready Made Garment	0.97	174.96	194.06	195.84
45 Woolen Readymade Garments	0.40	184.41	200.23	208.59
46 Hosiery	0.51	185.86	203.32	206.31
47 Dopatta	0.44	192.59	212.53	214.25
48 Cleaning & Laundering	0.21	195.35	216.66	217.89

Table A10: Consumer Price Index Numbers by Major Groups and Composite Commodities				
Items and specification	Weights	Index		
		Dec-12	Nov-13	Dec-13
49 Tailoring	0.88	206.63	235.52	237.19
50 Footwear	1.55	149.16	169.58	162.96
Housing,Water,Elect,Gas & Other Fuel	29.41	150.10	164.33	164.44
51 House Rent	21.81	139.61	150.59	150.59
52 Construction Input Item	0.56	203.13	221.73	225.47
53 Construction Wage Rate	0.33	172.69	191.07	191.24
54 Water Supply	0.50	134.90	147.52	147.52
55 Electricity	4.40	196.37	227.44	227.44
56 Gas	1.58	134.34	143.81	143.81
57 Kerosene Oil	0.01	272.53	296.65	296.77
58 Fire Wood Whole	0.23	236.83	256.78	260.84
Furnished H.Hold Equip.& Maint. Etc	4.21	180.08	194.16	195.83
59 Furniture	0.33	169.13	183.52	187.36
60 Household Textile	0.65	176.21	190.35	193.78
61 Household Equipment	0.59	158.25	165.35	166.01
62 Utensils	0.32	177.63	195.29	197.31
63 Plastic Products	0.25	175.69	189.62	190.40
64 Washing Soap & Detergent	0.79	195.07	212.44	213.77
65 Sewing Needle & Dry Cell	0.15	151.84	172.30	173.11
66 Household Servant	1.04	191.93	205.48	206.44
67 Marriage Hall Charges	0.08	193.63	206.52	207.66
Health	2.19	156.76	165.73	166.83
68 Drug Medicine	1.27	138.76	142.19	142.27
69 Medical Equipment	0.01	198.31	209.63	209.70
70 Doctor (MBBS) Clinic Fee	0.59	194.63	216.61	219.23
71 Medical Test	0.32	157.07	163.95	166.32
Transport	7.20	181.04	197.04	197.03
72 Motor Vehicle	0.66	152.89	160.81	161.22
73 Motor Vehicle Accessories	0.24	209.17	221.31	222.12
74 Motor Fuel	3.03	172.28	194.85	194.14
75 Mechanical Service	0.46	184.20	197.52	198.85
76 Motor Vehicle Tax	0.11	152.02	153.74	153.74
77 Transport Services	2.70	195.85	207.87	208.24
Communication	3.22	123.85	129.71	129.79
78 Postal Services	0.07	173.52	215.89	215.89
79 Communication & Apparatus	3.15	122.80	127.90	127.98
Recreation & Culture	2.02	166.69	182.66	183.13
80 Recreation & Culture	0.86	122.16	126.38	126.50
81 Text Books	0.57	231.05	267.10	267.10
82 News Papers	0.19	155.92	170.49	172.95
83 Stationery	0.40	176.31	189.69	190.60
Education	3.94	154.93	167.91	168.34
84 Education	3.94	154.93	167.91	168.34
Restaurants And Hotels	1.23	202.44	225.76	228.16
85 Ready Made Food	1.23	202.44	225.76	228.16
Miscellaneous Goods And Services	2.76	201.20	209.61	210.35
86 Personal Care	1.49	180.05	191.32	192.91
87 Cosmetics	0.39	149.65	174.38	176.30
88 Blades	0.03	173.53	180.83	181.71
89 Personal Equipments	0.84	263.21	259.16	257.84

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

Items and Specifications	Index		
	Dec-12	Nov-13	Dec-13
General	192.98	212.22	210.11
Agriculture Forestry & Fishery	192.97	220.76	212.36
1 Wheat	185.88	231.90	244.00
2 Maize	165.11	178.94	175.94
3 Rice	163.76	176.47	176.55
4 Sorghum/Jowar	198.10	263.55	248.44
5 Millet/Bajra	157.83	179.40	175.79
6 Vegetables	185.19	367.68	220.02
7 Fresh Fruits	207.91	194.51	183.06
8 Dry Fruits	179.38	197.11	201.08
9 Cotton Seeds	166.78	168.77	168.48
10 Other Oil Seeds	186.07	178.95	182.45
11 Edible Roots/ Potatoes	176.09	472.04	296.10
12 Stimulant And Spice Crops	170.28	275.65	289.64
13 Pulses	207.89	178.53	186.65
14 Sugar Crops	267.92	267.92	267.92
15 Fibre Crops	179.31	212.61	210.20
16 Unmanufactured Tobacco	169.08	181.11	187.30
17 Poultry	175.34	159.59	185.85
18 Milk From Bovine Animals	213.76	223.35	224.04
19 Eggs	250.45	230.34	245.62
20 Raw Animal Material/Wool	137.58	153.55	153.55
21 Hides And Fur Skins, Raw	138.82	145.71	147.61
22 Fuel Wood In Logs	216.60	236.04	238.23
23 Fishes Live Fresh Or Chilled	178.10	249.22	249.61
Ores/Minerals, Gas & Elect.	208.45	243.77	243.89
24 Coal Not Agglomerated	196.08	223.53	223.53
25 Natural Gas Liquefied	193.63	204.91	205.11
26 Salt & Pure Sodium Chloride	164.54	217.04	220.90
27 Electrical Energy	226.10	287.44	287.44
Food, Beverages, Tobacco, Textiles	188.44	201.99	200.91
28 Meat Of Animals	228.57	239.95	239.95
29 Vegetables & Fruit Juices	188.52	192.59	193.79
30 Dried Fruits & Nuts	224.06	224.54	223.51
31 Fruit Juices	157.91	165.29	166.02
32 Vegetable Oil Refined	156.05	160.83	161.60
33 Vegetable Ghee	139.95	141.61	142.45
34 Oil Cakes	172.67	181.80	183.79
35 Processed Liquid Milk	208.43	205.54	210.94
36 Milk And Cream In Solid Form	171.59	190.96	193.72
37 Ice Cream	167.68	209.79	209.79
38 Dairy Products N.E.C	204.91	217.26	217.26
39 Wheat Flour	168.13	209.15	214.45
40 Other Cereal Flour	200.17	132.04	136.20
41 Sugar Refined	199.74	229.71	202.31
42 Chocolate	99.19	99.19	99.19
43 Sugar Confectionary	100.40	102.28	102.28
44 Coffee And Tea	199.81	229.47	226.18
45 Spices	301.56	194.28	194.39
46 Other Food Products	319.27	308.23	308.23
47 Mineral Water	168.32	181.84	181.84
48 Beverages	137.86	150.11	152.77
49 Tobacco Products	208.80	242.41	242.41
50 Cotton Yarn	211.22	221.66	215.52
51 Nylon Yarn	178.80	181.73	181.73
52 Blended Yarn	192.45	201.89	201.89
53 Woven Fabrics	206.00	224.64	226.82
54 Cotton Fabrics	174.17	187.77	187.77
55 Other Fabrics	165.62	179.06	179.06

Table A11: Wholesale Price Index Numbers by Major Groups and Composite Commodities				
		Index		
Items and Specifications		Dec-12	Nov-13	Dec-13
56 Silk And Rayon Fabrics		154.21	161.09	161.09
57 Towels		203.06	233.85	234.25
58 Blankets		184.97	196.10	204.97
59 Bed Sheets		197.94	227.19	236.05
60 Quilts		151.68	160.74	169.53
61 Woolen Carpets		106.55	109.52	113.69
62 Synthetic Carpets		114.41	115.69	116.10
63 Hosiery Products		178.65	187.81	187.81
64 Ready Made Garments		136.27	153.12	153.12
65 Leather With Out Hairs		109.83	144.55	149.13
66 Other Leather N.E.C		122.57	276.28	297.73
67 Footwear's		133.63	139.49	134.22
Other Transportable Goods		204.13	216.87	218.30
68 Timber		148.36	166.37	173.24
69 Printing Paper		155.35	167.02	169.75
70 Hard Board		194.44	214.58	229.17
71 Coke		163.45	163.45	163.45
72 Motor Sprit		171.33	190.50	190.50
73 Diesel Oil		261.87	279.46	279.46
74 Kerosene Oil		263.47	288.01	288.01
75 Furnace Oil		168.81	184.52	184.93
76 Mobil Oil		184.45	193.09	193.09
77 Chemicals		156.65	169.65	172.77
78 Dying Materials		104.26	106.46	107.55
79 Fertilizers		261.25	263.88	266.56
80 Pesticides		197.49	224.99	225.48
81 Insecticides		117.42	131.04	133.78
82 Paints & Varnishes		237.48	249.49	265.56
83 Medicines		139.54	138.77	138.77
84 Soaps & Detergent		168.41	178.85	181.19
85 Auto Tyres		180.84	185.73	185.73
86 Plastic Products		191.35	200.86	201.76
87 Glass Sheets		190.93	206.90	207.75
88 Other Glass Articles		191.72	213.87	214.09
89 Ceramics And Sanitary		157.32	171.02	171.05
90 Bricks Blocks And Tiles		173.20	194.89	196.76
91 Cement		187.19	200.84	204.86
92 Bed Foams		141.17	149.33	149.67
93 Matches		133.50	143.20	143.20
Metal Product Machinery & Equip		159.19	168.01	168.65
94 Pig Iron		128.97	128.97	128.97
95 Steel Bars & Sheets		133.53	140.55	140.33
96 Pipe Fittings		141.47	166.34	168.00
97 Steel Products		161.94	170.08	170.12
98 Engines And Motors		109.07	109.07	109.07
99 Vacuum Pumps		115.39	115.39	115.39
100 Air Conditioners		172.67	181.12	181.12
101 Cultivators		189.23	226.90	226.90
102 Chuff Cutter		138.54	144.94	144.94
103 Tractors		161.96	193.29	193.29
104 Lathe Machines		147.68	174.96	208.81
105 Concrete Mixer		138.83	138.83	138.83
106 Refrige,Wash& Sew Mach, Iron,Fan		166.45	186.98	191.24
107 Electrical Wires		159.57	169.09	169.55
108 Lighting Equipments		148.22	163.43	162.71
109 Radio And Television		126.46	126.49	126.49
110 Motor Vehicles		171.79	181.77	181.93
111 Motor Cycles		125.19	125.41	125.41
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	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
	Nov	191.21	218.16	175.06	212.22	215.77	209.97	214.76
	Dec	188.68	210.89	175.37	210.11	210.28	210.00	210.78

*: all groups combined

Table A13: International Commodity Prices/ Indices				
	Sep-13	Oct-13	Nov-13	Dec-13
Energy				
Crude Oil (US\$ per barrel) *	108.8	105.5	102.6	105.5
IMF Energy Index (2005 = 100)	198.1	193.0	189.0	194.1
WB Energy Index (2010 = 100) @	131.6	128.3	125.5	129.5
Food				
Rice (\$/MT)	470.0	453.3	448.8	447.5
Wheat (\$/MT)	307.5	325.1	306.8	291.6
Sugar (US cent/ pound)	17.6	18.8	17.7	16.4
Palm Oil (\$/MT)	725.8	762.6	810.3	795.3
Soybean Oil (\$/MT)	935.0	897.7	897.3	872.5
Non-Food Non-Energy				
Cotton Outlook 'A' Index #	90.1	89.3	84.6	87.5
IMF Metal Price Index (2005 = 100)	177.9	179.0	178.0	179.3
Copper (\$/MT)	7,159.3	7,203.0	7,070.7	7,214.9
Aluminum (\$/MT)	1,761.3	1,814.6	1,748.0	1,739.8
Iron Ore (\$ cents/dry MT)	134.2	132.6	136.3	135.8
Tin (\$/MT)	22,735.1	23,101.6	22,826.9	22,762.1
Nickle (\$/MT)	13,801.4	14,117.7	13,684.0	13,924.6
Zinc (\$/MT)	1,846.9	1,884.8	1,866.4	1,975.0
Lead (\$/MT)	2,084.9	2,115.4	2,089.6	2,136.7
Uranium (\$/MT)	35.8	35.8	35.8	35.8
DAP (\$/MT)	398.1	377.3	351.3	369.9
Urea (\$/MT)	297.8	299.3	312.4	330.1
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	191.21
Dec	145.90	160.12	172.82	188.68
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	137.43	154.50	169.28	182.91
Aug	139.72	155.81	169.85	184.32
Sep	142.58	157.49	171.37	184.02
Oct	143.74	159.47	171.71	187.31
Nov	145.57	160.38	171.45	190.08
Dec	146.72	161.05	173.88	189.84
Jan	147.86	162.77	175.88	
Feb	148.05	164.43	176.58	
Mar	149.79	165.98	176.92	
Apr	150.98	167.93	177.63	
May	151.82	170.54	179.35	
Jun	153.41	170.73	180.79	

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	218.16
Dec	163.69	179.21	192.97	210.89
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	148.86	174.22	189.92	207.18
Aug	154.45	174.63	189.38	208.77
Sep	161.41	177.28	190.70	205.71
Oct	160.97	179.77	190.28	208.98
Nov	164.26	180.64	190.12	214.79
Dec	165.02	180.74	194.69	212.76
Jan	167.21	182.62	197.34	
Feb	166.65	184.20	197.83	
Mar	169.23	185.88	197.69	
Apr	170.05	188.27	198.59	
May	170.14	189.43	201.93	
Jun	171.76	189.52	204.54	

Table 16: CPI Monthly & Average Seasonal Factors					
Period	FY11	FY12	FY13	FY14	Average
Jul	100.14	100.14	100.17	100.37	100.20
Aug	100.65	100.68	100.73	100.75	100.70
Sep	100.64	100.64	100.62	100.63	100.63
Oct	100.80	100.83	100.81	100.81	100.81
Nov	100.53	100.54	100.57	100.60	100.56
Dec	99.44	99.42	99.39	99.39	99.41
Jan	99.87	99.89	99.90		99.88
Feb	99.19	99.17	99.17		99.18
Mar	99.41	99.40	99.38		99.40
Apr	100.01	100.04	100.06		100.04
May	99.68	99.64	99.61		99.64
Jun	99.59	99.57	99.53		99.56

Table 17: CPI Food Monthly & Average Seasonal Factors					
Period	FY11	FY12	FY13	FY14	Average
Jul	100.31	100.34	100.42	100.49	100.39
Aug	101.46	101.54	101.63	101.68	101.58
Sep	101.58	101.62	101.63	101.64	101.62
Oct	101.82	101.84	101.78	101.74	101.79
Nov	101.42	101.45	101.53	101.57	101.49
Dec	99.20	99.15	99.12	99.12	99.15
Jan	99.59	99.61	99.61		99.60
Feb	98.15	98.10	98.09		98.11
Mar	98.74	98.70	98.67		98.70
Apr	99.53	99.55	99.57		99.55
May	99.19	99.11	99.04		99.11
Jun	98.91	98.86	98.81		98.86

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	1.27
Dec	-0.30	-0.70	0.23	-1.32
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		0.71	-0.85	1.17
Aug	1.67	0.85	0.34	0.77
Sep	2.05	1.08	0.89	-0.16
Oct	0.81	1.26	0.20	1.78
Nov	1.27	0.57	-0.15	1.48
Dec	0.79	0.42	1.42	-0.12
Jan	0.78	1.06	1.15	
Feb	0.12	1.02	0.40	
Mar	1.18	0.94	0.19	
Apr	0.79	1.17	0.41	
May	0.56	1.55	0.97	
Jun	1.05	0.11	0.81	

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	2.61
Dec	-1.74	-2.21	-0.03	-3.33
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		1.43	0.21	1.29
Aug	3.75	0.24	-0.28	0.77
Sep	4.50	1.52	0.70	-1.46
Oct	-0.27	1.40	-0.22	1.59
Nov	2.04	0.48	-0.09	2.78
Dec	0.46	0.06	2.41	-0.95
Jan	1.33	1.04	1.36	
Feb	-0.34	0.86	0.25	
Mar	1.55	0.91	-0.07	
Apr	0.48	1.29	0.46	
May	0.05	0.62	1.68	
Jun	0.95	0.04	1.29	

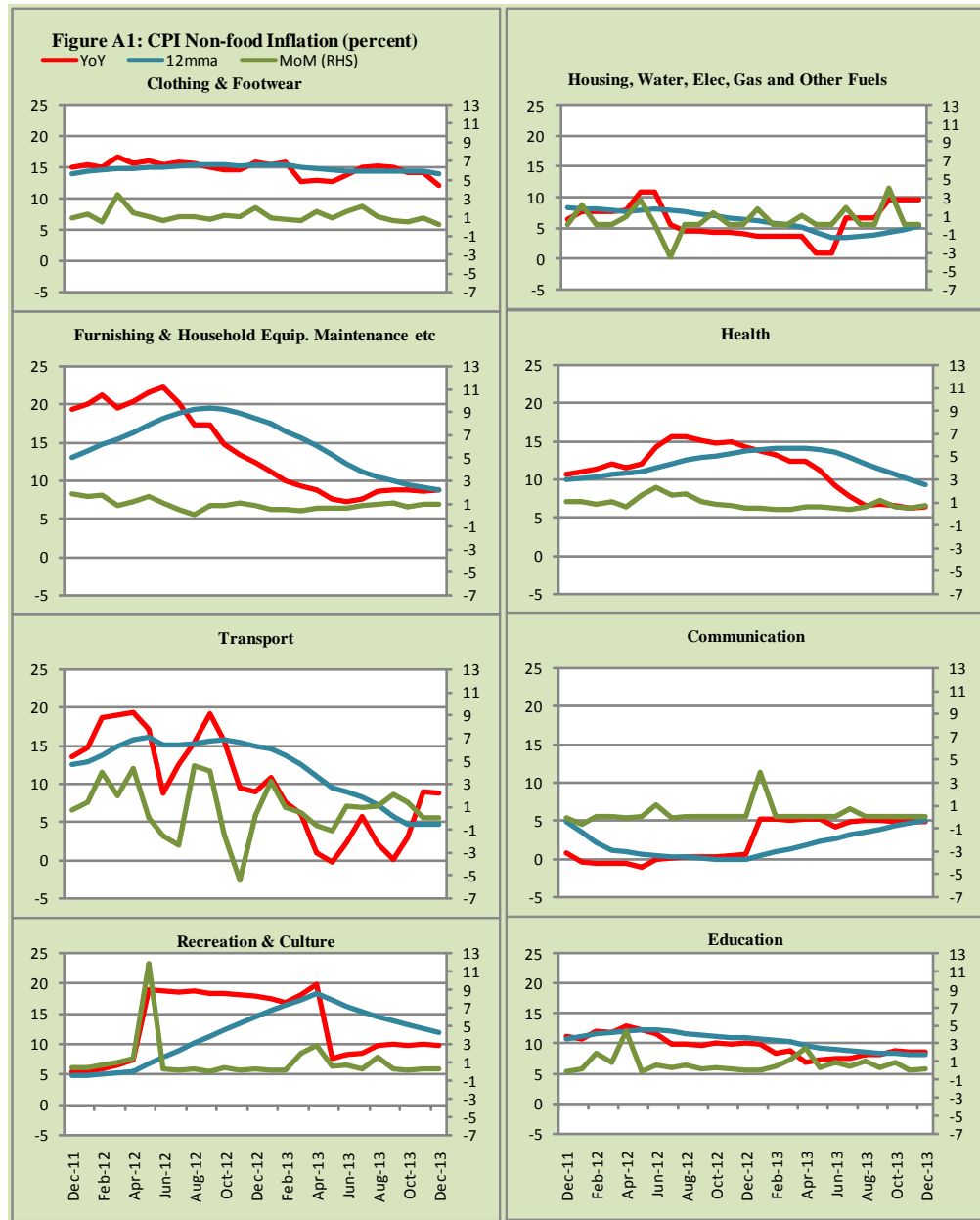


Figure A2: Frequency Distribution of Price Changes of CPI Items, December 2013

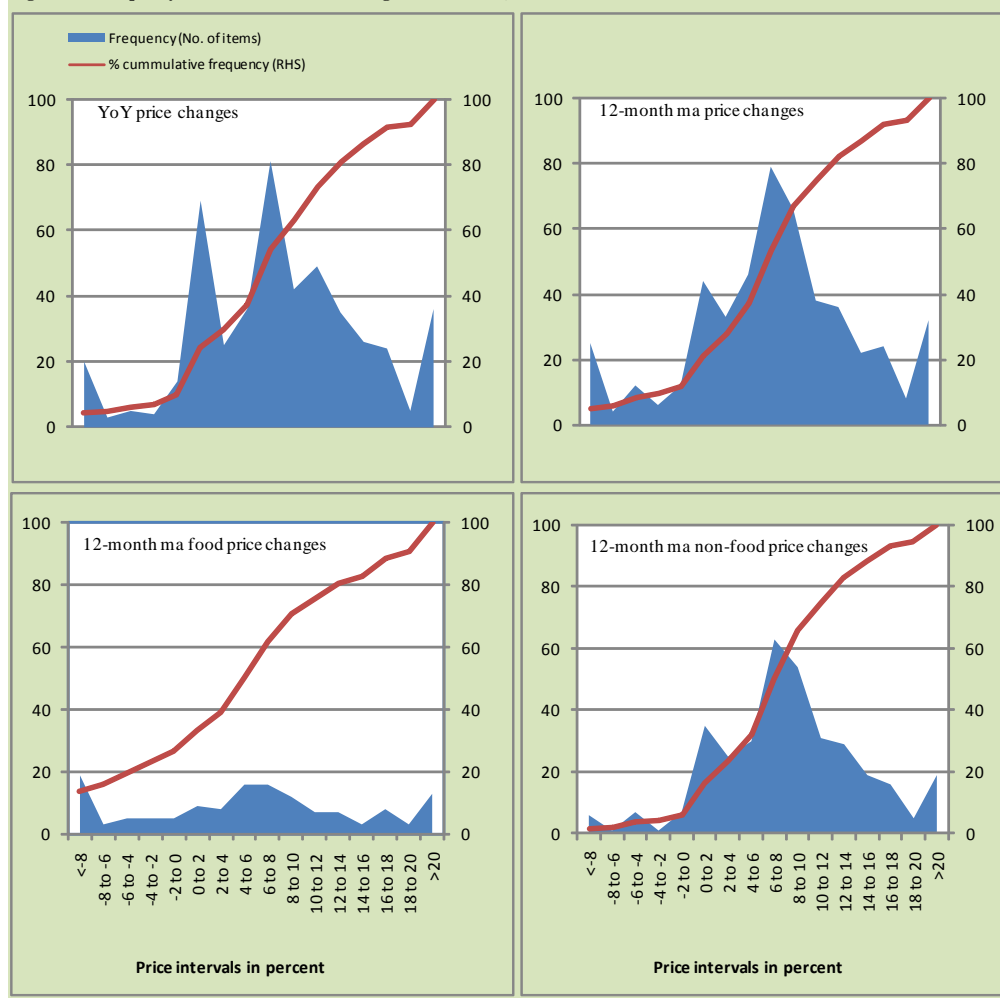


Figure A3: Frequency Distribution of Price Changes of WPI Commodities, December 2013

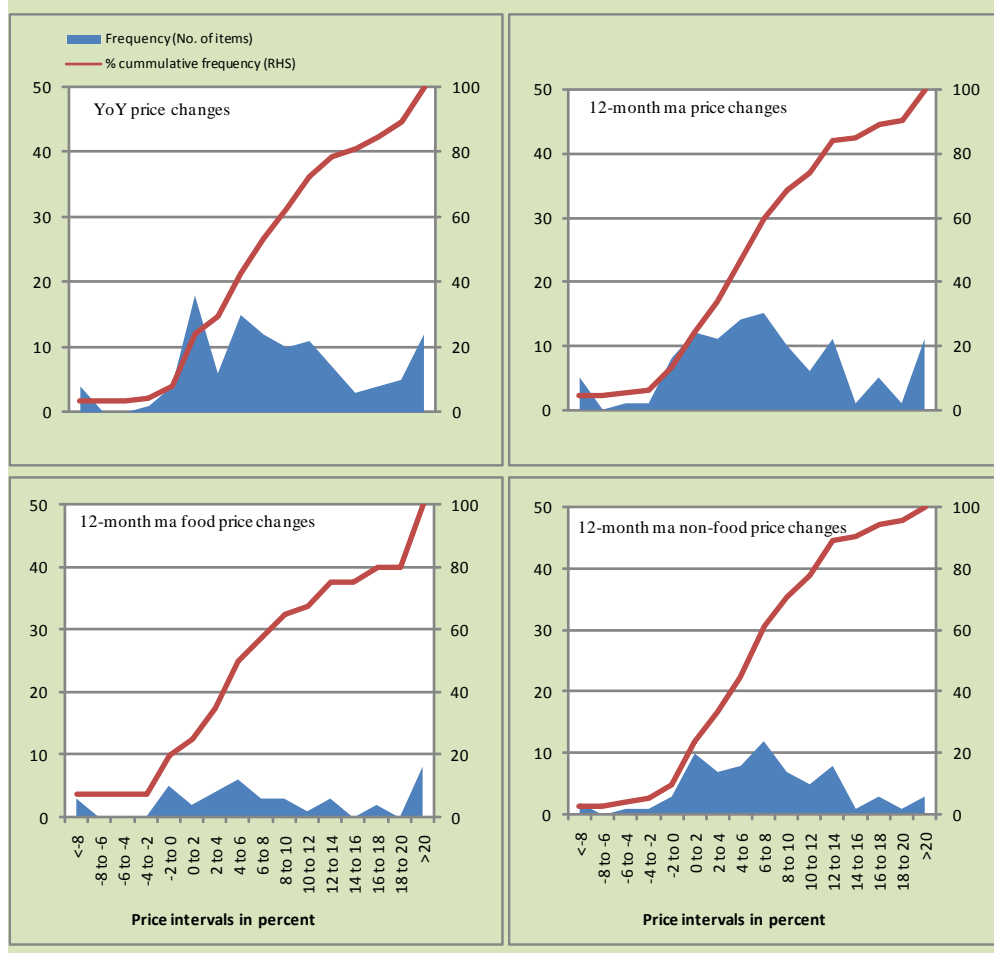
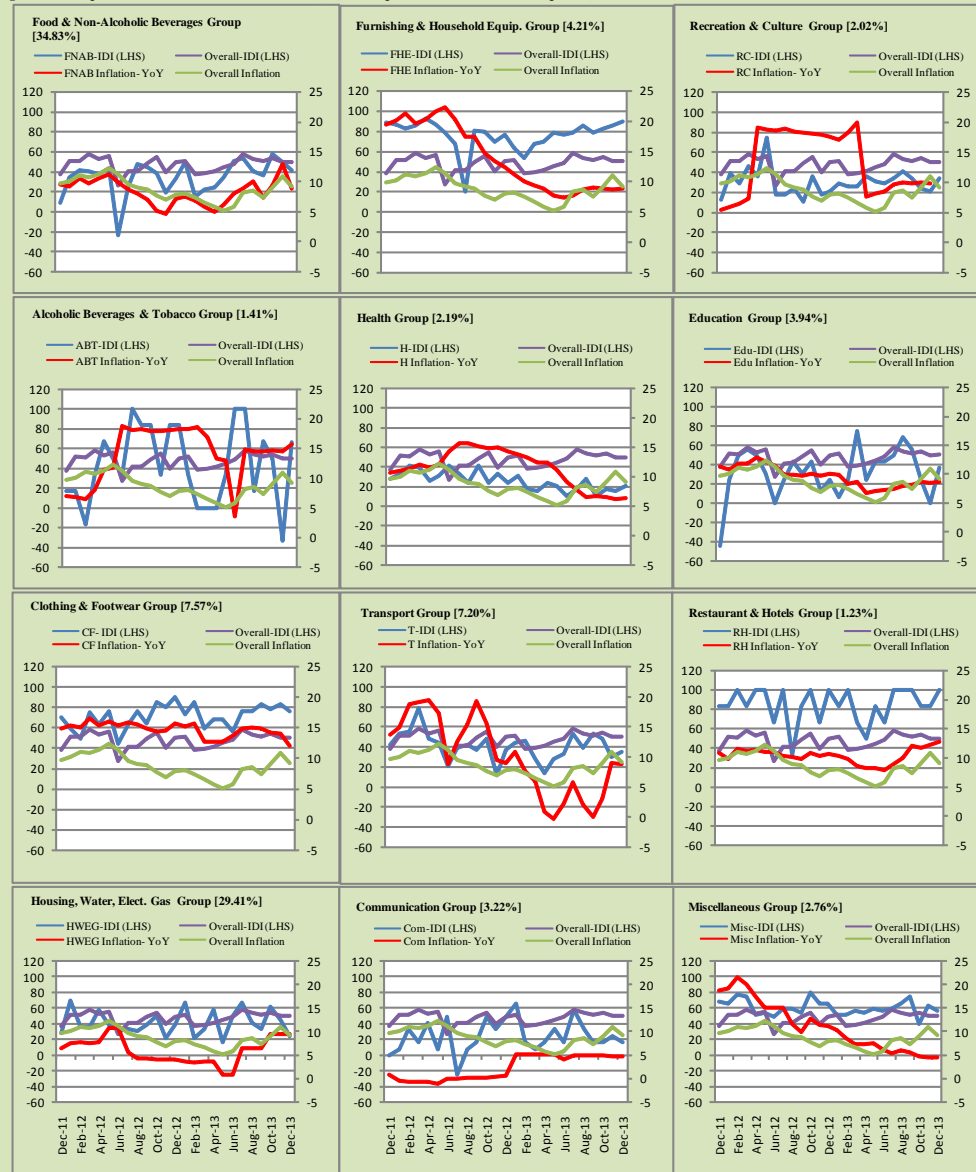


Figure A4: Group-wise/ Overall Inflation Diffusion Index (IDI) and respective/ overall YoY Inflation (percent)



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 three methods:

- a) Non-food, Non-energy inflation (NFNE inflation); it is computed by excluding food group and energy items (kerosene oil, petrol, diesel, CNG, electricity and natural gas) from the CPI basket.
- b) 20% trimmed-mean inflation; it is computed through the following steps:

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.