

Inflation Monitor

August 2012



State Bank of Pakistan

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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 August 2012 as compared to 9.6 percent in the previous month and 11.6 percent in the corresponding month of last year.
2. CPI inflation on month-on-month basis is recorded at 0.9 percent in August 2012 as compared to -0.2 percent in the previous month and 1.4 percent in the corresponding month of last year. Seasonally adjusted month-on-month CPI inflation increased to 0.5 percent in August 2012 as compared to -0.8 percent in the previous month.
3. Core inflation (trimmed) on year-on-year basis decreased to 10.6 percent in August 2012 as compared to 10.7 percent in the previous month and it was 12.4 percent in the corresponding month of last year.
4. On month-on-month basis, the Core inflation (trimmed) decreased to 0.4 percent in August 2012 as compared to 0.7 percent in previous month as well as 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 10.8 percent in August 2012 as compared to 11.3 percent in July 2012. It was 10.1 percent in August 2011.
6. Core NFNE inflation on month-on-month basis decreased to 0.3 percent in August 2012 when compared to 1.0 percent a month earlier. The rate of change in Core NFNE in August 2011 was 0.8 percent.
7. WPI inflation on year-on-year basis increased to 7.7 percent in August 2012 when compared to 7.2 percent a month earlier. During August 2011, WPI inflation was recorded at 18.7%.

8. WPI inflation on month-on-month basis increased to 1.0 percent in August 2012 as compared to 0.4 percent a month earlier. It was 0.6 percent in August 2011.
9. SPI inflation on year-on-year basis remained same at 7.3 percent in August 2012 as in the previous month. It was 11.9 percent in corresponding month of the last year.
10. SPI inflation on month-on-month basis is recorded at 1.4 percent in August 2012 as compared to -2.2 percent a month earlier and 1.4 percent in August 2011.

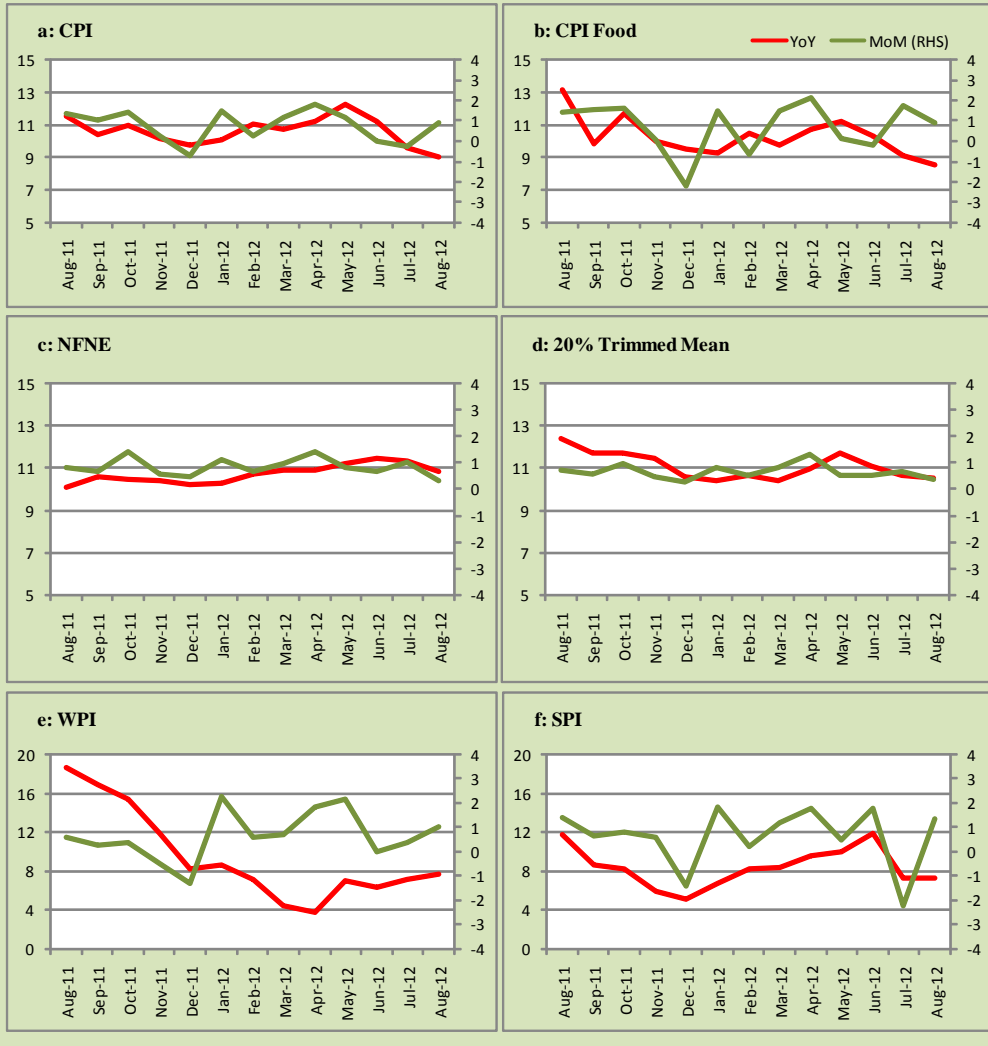
Table 1.1 Inflation Trends (percent) (Base 2007- 08 = 100)

Period	CPI Inflation						Core Inflation				WPI Inflation		SPI** Inflation	
	General		Food		Non-food		NFNE*		Trimmed					
	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM
Aug-11	11.6	1.4	13.2	1.4	10.4	1.4	10.1	0.8	12.4	0.7	18.7	0.6	11.9	1.4
Sep-11	10.5	1.0	9.9	1.6	10.9	0.6	10.6	0.7	11.7	0.6	17.0	0.2	8.7	0.7
Oct-11	11.0	1.4	11.7	1.6	10.4	1.3	10.5	1.4	11.7	1.0	15.4	0.4	8.2	0.8
Nov-11	10.2	0.3	10.0	0.1	10.3	0.4	10.4	0.6	11.5	0.5	12.0	-0.5	5.9	0.6
Dec-11	9.7	-0.7	9.5	-2.2	9.9	0.4	10.2	0.5	10.6	0.3	8.3	-1.3	5.1	-1.4
Jan-12	10.1	1.5	9.2	1.5	10.7	1.6	10.3	1.1	10.4	0.8	8.7	2.3	6.8	1.8
Feb-12	11.0	0.3	10.5	-0.7	11.5	1.0	10.7	0.7	10.7	0.5	7.2	0.6	8.3	0.2
Mar-12	10.8	1.2	9.8	1.5	11.5	0.9	10.9	1.0	10.5	0.8	4.5	0.7	8.4	1.2
Apr-12	11.3	1.8	10.7	2.2	11.6	1.6	10.9	1.4	11.0	1.3	3.8	1.8	9.7	1.8
May-12	12.3	1.1	11.3	0.2	13.0	1.9	11.2	0.8	11.7	0.5	7.1	2.1	10.1	0.5
Jun-12	11.3	0.0	10.3	-0.2	12.0	0.2	11.5	0.7	11.1	0.5	6.4	0.0	11.9	1.8
Jul-12	9.6	-0.2	9.1	1.8	10.0	-1.7	11.3	1.0	10.7	0.7	7.2	0.4	7.3	-2.2
Aug-12	9.1	0.9	8.5	0.9	9.4	0.9	10.8	0.3	10.6	0.4	7.7	1.0	7.3	1.4

* NFNE is Non-food non-energy

** SPI for all income groups combined

Fig 1.1: Summary of Price Inflation



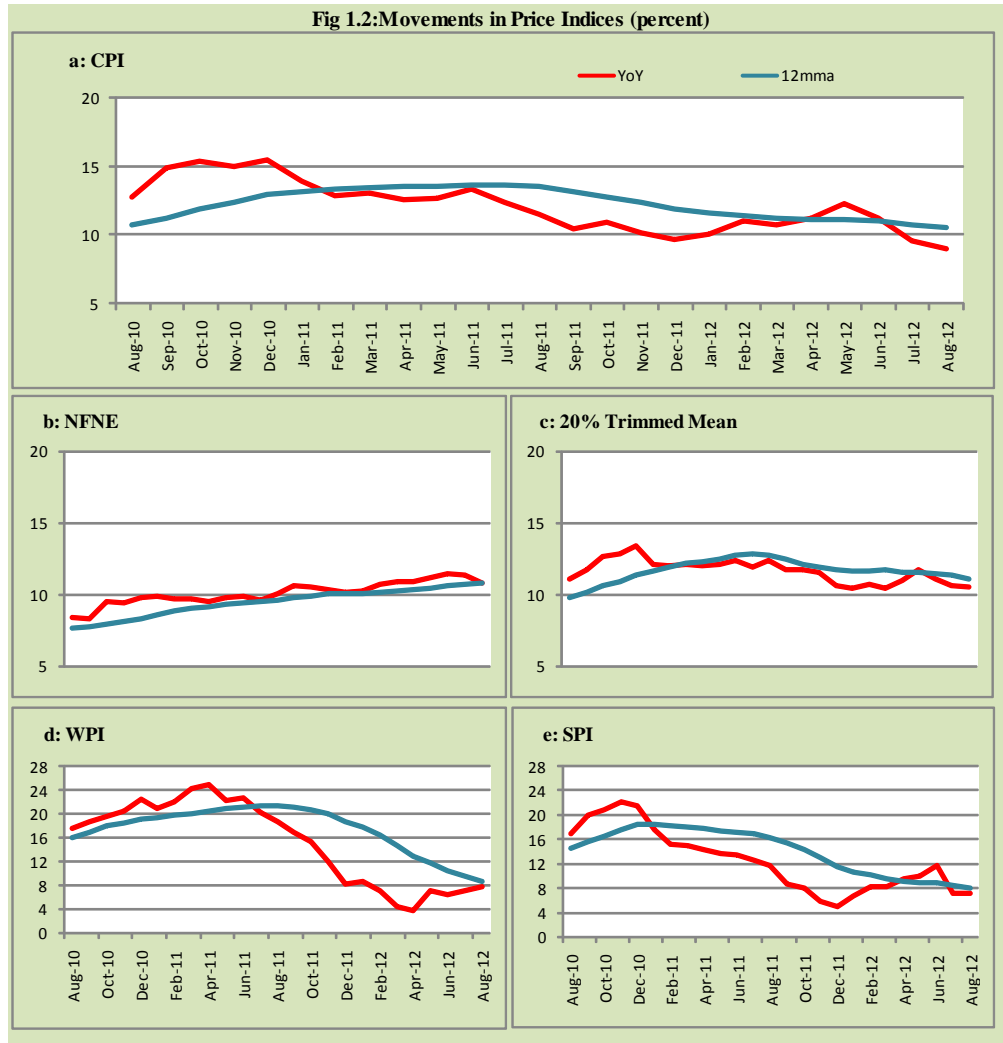


Fig 1.3: Movements in Price Indices -MoM (percent)

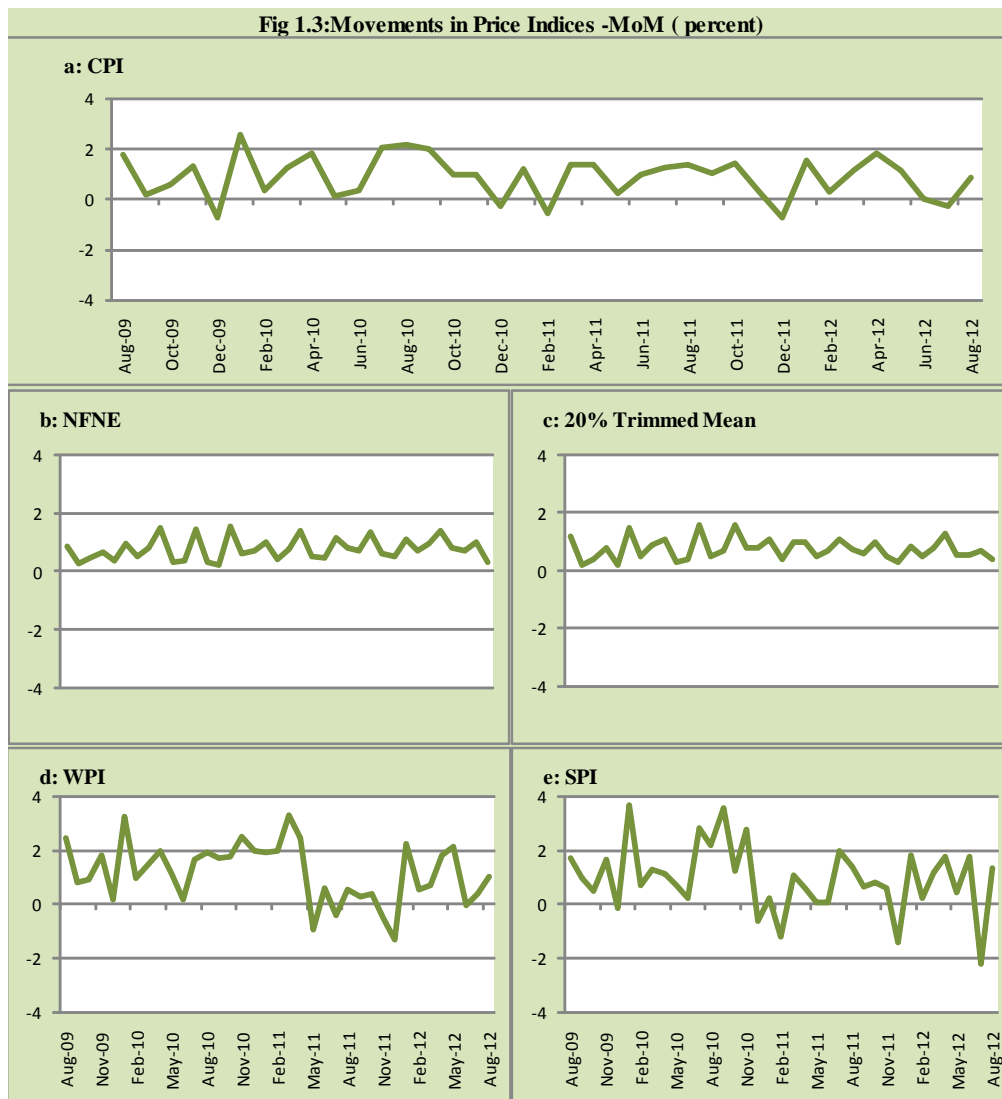
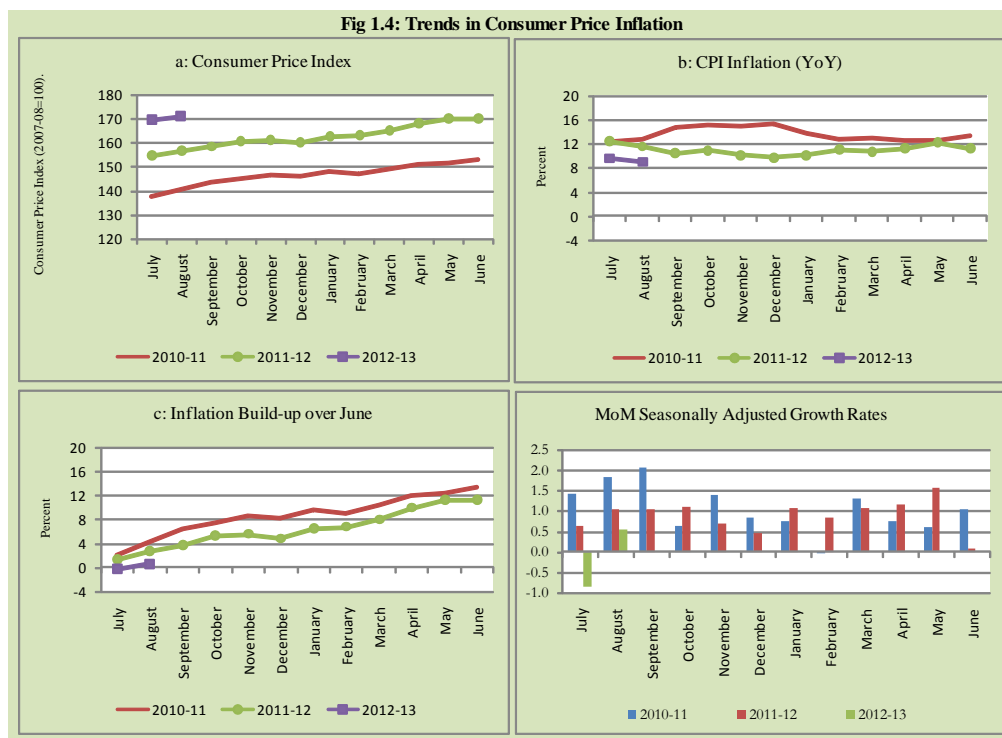


Fig 1.4: Trends in Consumer Price Inflation



2. City wise Inflation

CPI Inflation on year-on-year basis in federal and provincial capitals of Pakistan was lower than overall inflation observed during August 2012. Among these five cities, the lowest inflation was observed in Peshawar which is 6.9 percent while the highest inflation was observed in Quetta which is 8.8 percent (Table A6 of annexure-A).

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

	Aug-11		Jul-12		Aug-12	
	MoM	YoY	MoM	YoY	MoM	YoY
Overall CPI	1.4	11.6	-0.2	9.6	0.9	9.1
Islamabad	1.2	12.2	-0.2	8.6	1.1	8.6
Karachi	1.5	10.7	-1.6	7.8	1.6	7.9
Lahore	1.0	9.0	0.4	9.0	0.8	8.7
Peshawar	0.9	10.4	-0.8	6.7	1.1	6.9
Quetta	1.6	12.0	-0.7	9.5	1.0	8.8

3. Income Group wise Inflation

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

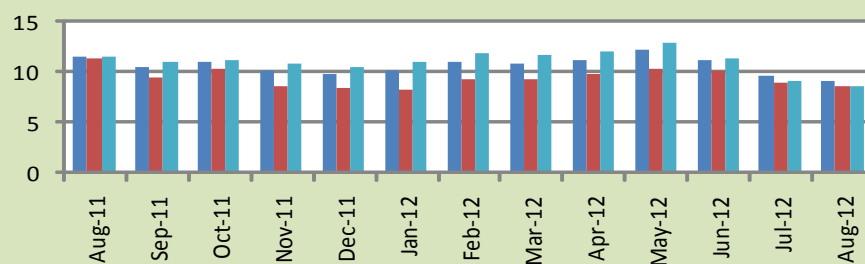
Table 3.1 Income Group- wise Inflation (YoY)

Income Groups	General			Food			Non-food		
	Aug-11	Jul-12	Aug-12	Aug-11	Jul-12	Aug-12	Aug-11	Jul-12	Aug-12
All Groups Combined	11.6	9.6	9.1	13.2	9.1	8.5	10.4	10.0	9.4
Up to Rs. 8,000	11.3	8.9	8.6	12.0	7.4	7.4	10.5	11.0	10.3
Rs. 8,001- 12,000	11.5	10.2	9.8	12.5	8.0	7.8	10.5	12.8	12.2
Rs. 12,001- 18,000	11.5	10.1	9.7	12.7	8.6	8.2	10.3	11.7	11.4
Rs. 18,001- 35,000	11.4	9.0	8.3	13.0	9.1	8.6	10.1	8.8	8.1
Above Rs. 35,000	11.6	9.2	8.5	13.9	10.0	9.1	10.5	8.7	8.2

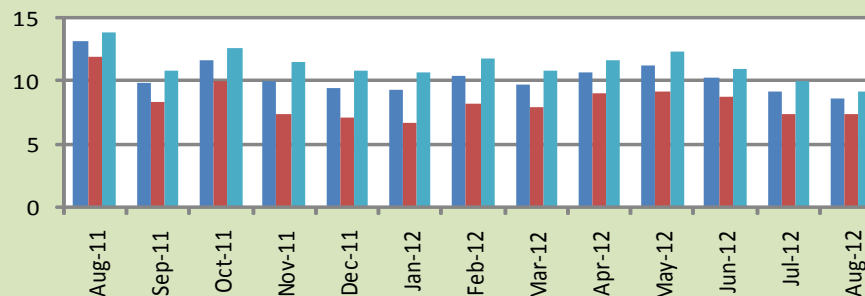
Fig 3.1: Income Group- wise Inflation

a: CPI Overall Inflation (YoY)

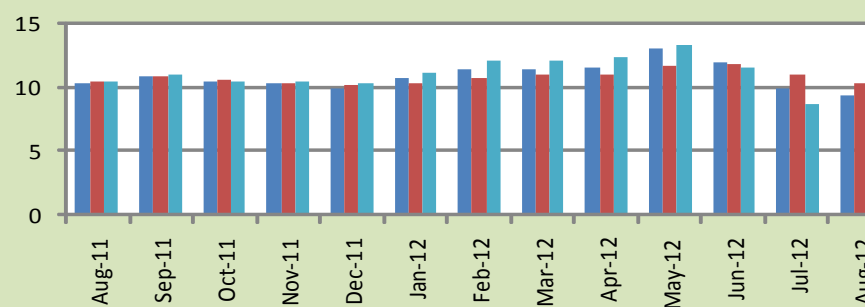
■ All Groups combined ■ Upto Rs. 8,000 ■ Above Rs. 35,000



b: CPI Food Inflation (YoY)



c: CPI Non-Food Inflation (YoY)



4. Weighted Contribution

The weighted contribution of food group in the overall inflation decreased to 39.99 percent during August 2012 from 40.17 percent in July 2012. It was 47.56 percent in August 2011.

The weighted contribution of non-food group showed increase to touch 60.01 percent in August 2012 from 59.83 percent in July 2012.

Table 4.1 Weighted Contribution to CPI Inflation (YoY)

Period	Food	Clothing & Footwear	Housing, Water, Elect, Gas & Other Fuel	Transport	Education	Others
Aug-11	47.56	8.12	18.86	9.01	4.24	12.21
Sep-11	40.43	9.57	20.32	10.15	4.56	14.96
Oct-11	45.19	9.37	18.53	9.18	3.71	14.02
Nov-11	41.90	9.98	19.57	9.28	3.97	15.30
Dec-11	40.91	10.44	18.07	10.09	3.95	16.54
Jan-12	38.66	10.37	20.73	10.51	3.64	16.08
Feb-12	39.57	9.23	19.19	12.30	3.73	15.99
Mar-12	38.15	10.69	18.96	12.82	3.79	15.59
Apr-12	40.06	9.63	18.88	12.79	4.01	14.62
May-12	38.26	9.17	23.72	10.54	3.49	14.82
Jun-12	38.05	9.65	25.43	6.22	3.60	17.04
Jul-12	40.17	11.54	15.53	9.68	3.66	19.42
Aug-12	39.99	12.01	12.97	12.64	3.85	18.55

5. Inflation Diffusion Index

Table 5.1 Inflation Diffusion Index - based on MoM change													
	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12
General	53.4	56.1	52.2	47.3	37.7	51.5	51.0	57.6	53.1	55.6	27.0	41.4	41.4
Food & Non-Alcoholic Beverages	51.7	57.8	60.9	15.3	9.4	34.2	41.6	40.2	37.6	43.4	-23.4	25.4	47.8
Alcoholic Beverages & Tobacco	83.3	33.3	33.3	50.0	16.7	16.7	-16.7	33.3	66.7	50.0	33.3	100.0	83.3
Clothing & Footwear	62.7	54.2	47.5	76.3	69.5	59.3	49.2	74.6	62.7	76.3	44.1	62.7	76.3
Housing, Water, Elect, Gas & other Fuels	33.3	25.0	61.1	41.7	27.8	69.4	36.1	36.1	58.3	38.9	33.3	33.3	30.6
Furnishing & Household Equip. Maintenance etc	78.3	87.0	89.9	89.9	88.4	87.0	82.6	85.5	92.8	87.0	78.3	68.1	20.3
Health	35.9	23.1	25.6	33.3	28.2	33.3	41.0	38.5	25.6	30.8	41.0	33.3	23.1
Transport	41.9	53.5	48.8	32.6	41.9	53.5	55.8	79.1	48.8	44.2	20.9	39.5	41.9
Communication	50.0	8.3	25.0	25.0	0.0	8.3	33.3	16.7	41.7	8.3	50.0	-25.0	8.3
Recreation & Culture	41.0	51.3	7.7	25.6	12.8	38.5	28.2	46.2	35.9	74.4	17.9	17.9	23.1
Education	43.8	37.5	31.3	62.5	-43.8	25.0	50.0	56.3	50.0	31.3	0.0	25.0	43.8
Restaurant & Hotels	83.3	100.0	66.7	100.0	83.3	83.3	100.0	83.3	100.0	100.0	66.7	100.0	33.3
Miscellaneous	57.1	91.4	51.4	77.1	68.6	65.7	77.1	74.3	51.4	54.3	48.6	60.0	60.0
NFNE	53.8	55.6	49.7	59.8	47.3	58.3	54.7	63.9	57.4	57.7	44.7	47.0	38.8

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	Aug-11		Jul-12		Aug-12	
			YoY	MoM	YoY	MoM	YoY	MoM
1	Wheat	10 Kg	4.60	0.50	6.49	0.21	7.42	1.37
2	Wheat Flour Bag	10 Kg	10.80	-0.75	4.84	-0.40	6.88	1.19
3	Rice Basmati Sup. Qlty.	Kg	13.01	1.09	18.65	2.28	18.54	1.00
4	Pulse Masoor (Washed)	Kg	-7.48	-0.46	-8.18	-1.10	-8.05	-0.33
5	Pulse Moong (Washed)	Kg	16.89	-0.38	-14.15	-0.47	-14.67	-0.98
6	Pulse Mash (Washed)	Kg	-9.24	-1.47	-12.19	-1.45	-11.32	-0.49
7	Pulse Gram	Kg	8.99	1.44	49.95	0.03	46.13	-1.14
8	Vegetable Ghee (Loose)	Kg	30.12	0.43	4.25	-1.16	3.11	-0.66
9	Sugar Refined	Kg	2.06	5.53	-21.90	-0.74	-26.70	-0.96
10	Milk Fresh (Unboiled)	Ltr	21.34	1.16	12.80	0.64	12.85	1.21
11	Tea- Tapal Danedar	200 Gm	19.86	0.20	-1.76	-7.19	-1.96	0.00
12	Beef With Bone Av. Qlty.	Kg	20.76	2.34	13.24	0.02	10.99	0.29
13	Mutton Av. Qlty.	Kg	22.77	1.45	13.40	0.00	12.18	0.35
14	Chicken Farm Broiler (Live)	Kg	18.76	6.15	14.59	12.15	-4.66	-11.68
15	Eggs Farm	Doz	6.79	1.20	0.11	3.04	5.09	6.23
16	Potatoes	Kg	-10.13	-1.54	-11.03	11.85	-3.82	6.44
17	Onion	Kg	-27.90	32.11	50.94	20.82	46.28	28.03
18	Tomatoes	Kg	-43.27	-19.36	-31.94	16.60	78.64	111.67
19	Ginger	Kg	-23.63	-0.87	-26.29	3.16	-25.59	0.08
20	Garlic	Kg	-29.71	-7.53	-37.01	9.01	-28.11	5.54

7. Global Commodity Prices

Table 7.1 Changes in Major Global Indices (percent)

Item/ Group	Aug-11		Jul-12		Aug-12	
	YoY	MoM	YoY	MoM	YoY	MoM
Overall	30.5	-4.3	-10.5	4.7	-2.6	4.2
Food	19.9	0.8	2.4	9.4	2.1	0.5
Metals	34.7	-3.9	-24.4	-1.4	-25.9	-5.8
Energy	34.1	-5.6	-9.9	5.0	2.8	7.7
Agricultural	21.9	-5.2	-17.1	-0.2	-14.5	-2.3
Cotton	26.3	-23.6	-43.7	2.2	-26.0	0.5

Source: IMF

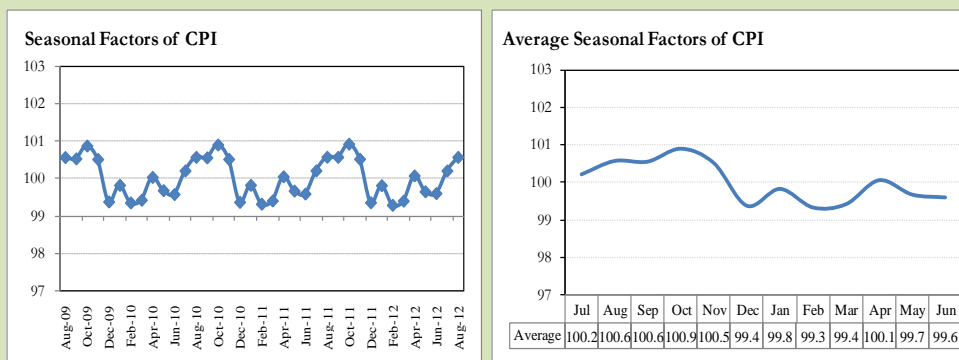
8. Seasonal Adjustment in CPI

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 August 2012 has been taken for seasonal adjustment analysis. The seasonal analysis is carried out without taking trading-day or Islamic calendar month's effects.

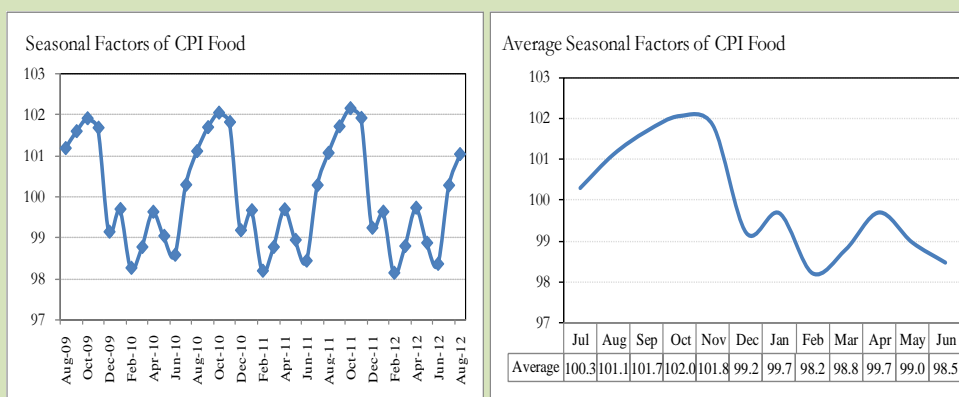
Figure 8.1 reveals that seasonality in CPI has been increasing over the period of last four years. Average seasonal factors reveal strong seasonality during the calendar year. There is an upward seasonality during the months July to November and downward seasonality in the remaining months of the year.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

Fig. 8.1 Seasonal Factors of CPI



Note: Data Available in Annex Table 16.

Fig. 8.2 Seasonal Factors of CPI Food



Note: Data Available in Annex Table 17.

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

Fig. 8.3 Seasonal Plots of CPI

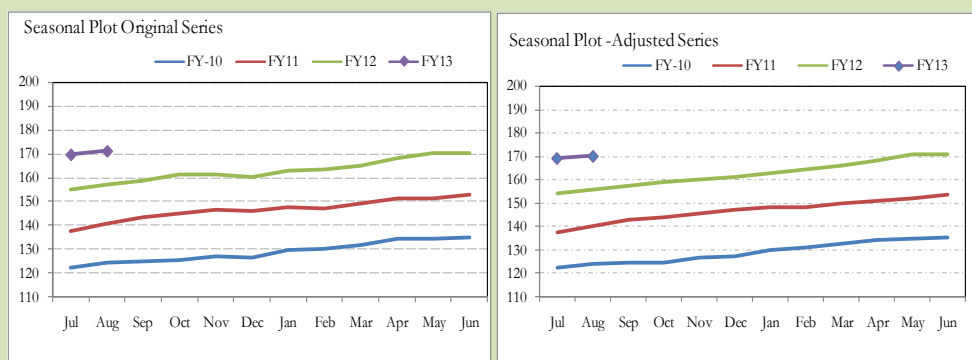
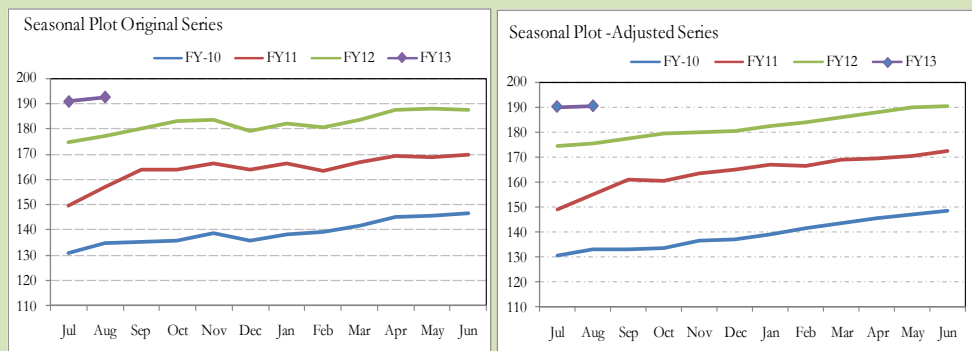


Fig. 8.4 Seasonal Plots of CPI (Food)



Seasonally adjusted CPI for August 2012 stood at 170.12 against 171.09 in original series showing a decrease of 0.97 on account of adjustment of upward seasonality in August 2012.

Seasonally adjusted CPI food group for August 2012 stood at 190.49 against 192.47 in original series showing a decrease of 1.98 on account of adjustment of upward seasonality in August 2012.

Month-on-month change of seasonally adjusted CPI series stood at 0.53% reflecting increase during August 2012 over July 2012 and an increase of 0.90% in original series.

Month-on-month change of seasonally adjusted CPI food group series stood at 0.16% reflecting increase during August 2012 over July 2012 and an increase of 0.92% 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 August 2012 (corresponding to the seasonally adjusted month-on-month rate) is 6.57 percent.

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

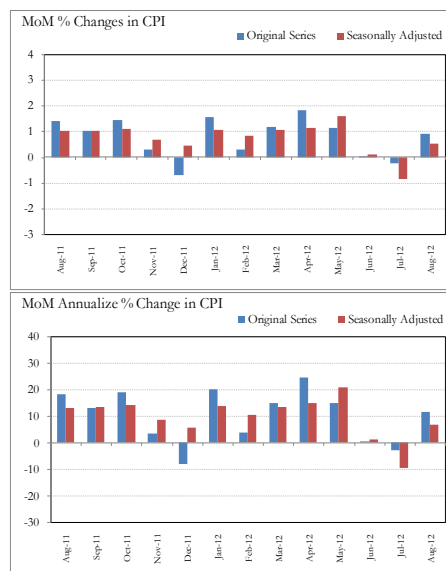
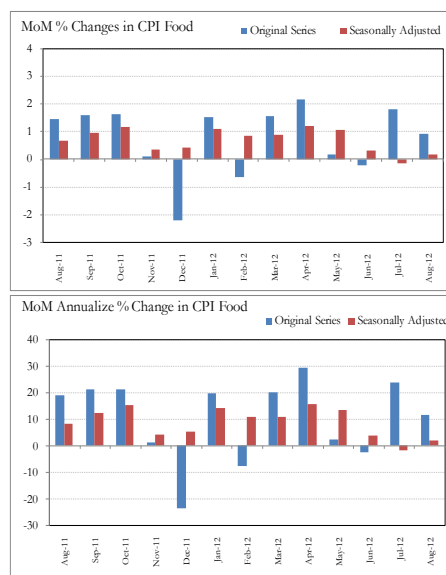


Fig. 8.6 Month-on-Month Percent Changes in CPI Food



Annexure A

	Weight	MoM change			YoY change		
		Aug-11	Jul-12	Aug-12	Aug-11	Jul-12	Aug-12
I. Food Group	37.5	1.4	1.8	0.9	13.2	9.1	8.5
Food & Non-Alcoholic Beverages	34.8	1.5	1.9	1.0	13.2	8.7	8.1
Alcoholic Beverages & Tobacco	1.4	0.3	0.7	0.3	7.2	18.1	18.1
Restaurant & Hotels	1.2	0.3	0.6	0.2	18.5	10.3	10.1
II. Non-Food Group	62.5	1.4	-1.7	0.9	10.4	10.0	9.4
Clothing & Footwear	7.6	1.2	1.0	0.9	13.7	15.8	15.6
Housing, Water, Elect, Gas & other Fuels	29.4	1.1	-3.5	0.0	8.0	5.6	4.4
Furnishing & Household Equip. Maint	4.2	2.4	0.5	0.0	12.2	20.2	17.4
Health	2.2	1.7	1.6	1.7	10.5	15.6	15.6
Transport	7.2	1.9	-2.4	4.5	14.4	12.6	15.4
Communication	3.2	-0.1	0.0	0.0	1.1	0.1	0.2
Recreation & Culture	2.0	0.2	0.2	0.3	5.8	18.6	18.8
Education	3.9	0.6	0.3	0.6	14.3	9.9	9.9
Miscellaneous	2.8	4.1	0.1	0.9	21.3	15.2	11.7
Headline	100.	1.4	-0.2	0.9	11.6	9.6	9.1

Groups	% changes	No of items in each inflation range									
		Total number of items		Decrease or no change (0% or less)		Subdued increase (>0% but <5%)		Moderate increase (5% but less than 10%)		Double digit increase (10% or more)	
		Aug-11	Aug-12	Aug-11	Aug-12	Aug-11	Aug-12	Aug-11	Aug-12	Aug-11	Aug-12
I. Food Group	8.5	129	128	18	25	9	19	22	31	80	53
Food & Non-Alcoholic Beverages	8.1	117	116	18	25	8	19	19	26	72	46
Alcoholic Beverages & Tobacco	18.1	6	6	0	0	1	0	3	2	2	4
Restaurant & Hotels	10.1	6	6	0	0	0	0	0	3	6	3
II. Non-Food Group	9.4	348	348	39	39	53	42	72	54	184	213
Clothing & Footwear	15.6	59	59	8	2	2	3	6	5	43	49
Housing, Water, Elect, Gas & other Fuels	4.4	36	36	2	6	4	1	10	12	20	17
Furnishing & Household Equip. Maintenance etc	17.4	69	69	2	1	4	7	19	13	44	48
Health	15.6	39	39	10	12	11	5	5	4	13	18
Transport	15.4	43	43	1	2	7	4	7	4	28	33
Communication	0.2	12	12	3	5	5	3	4	1	0	3
Recreation & Culture	18.8	39	39	9	6	14	9	10	8	6	16
Education	9.9	16	16	2	4	2	4	2	0	10	8
Miscellaneous	11.7	35	35	2	1	4	6	9	7	20	21
Overall	9.1	477	476	57	64	62	61	94	85	264	266

Note: Prices of 11 seasonal items were not reported during the month.

Table A3: Top Ten Contributors to CPI Inflation (YoY) in August 2012

Table 1: Top Ten Contributors to CPI Inflation (2011 to August 2012)					
Items/ Contributors		Weights	YoY Change		Weighted Contribution
			Aug-11	Aug-12	
A. Ranked by Weighted Contribution					
1	House Rent	21.81	7.51	6.52	12.89
2	Milk Fresh	6.68	21.33	12.95	11.50
3	Electricity	4.40	5.37	16.24	8.50
4	Motor Fuel	3.03	22.47	16.21	5.45
5	Transport Services	2.70	9.13	14.85	4.93
6	Fresh Fruits	1.86	23.60	18.31	4.85
7	Education	3.94	14.30	9.91	3.85
8	Meat	2.43	21.42	11.38	3.77
9	Household Servant	1.04	9.75	28.72	2.98
10	Cigarette	1.39	6.95	18.26	2.88
Total		49.30			61.58
B. Ranked by Percentage Change					
1	Tomatoes	0.44	-43.26	78.64	2.69
2	Onion	0.53	-27.90	46.27	2.35
3	Pulse Gram	0.24	9.00	46.13	1.25
4	Besan	0.15	11.01	43.65	0.76
5	Text Books	0.57	4.35	40.47	2.67
6	Household Servant	1.04	9.75	28.72	2.98
7	Motor Vehicle Tax	0.11	19.80	26.89	0.25
8	Gram Whole	0.16	26.59	23.96	0.51
9	Doctor (MBBS) Clinic Fee	0.59	18.56	22.37	1.43
10	Fire Wood Whole	0.23	28.20	21.46	0.64
Total		4.07			15.52
C. Ranked by Weights					
1	House Rent	21.81	7.51	6.52	12.89
2	Milk Fresh	6.68	21.33	12.95	11.50
3	Electricity	4.40	5.37	16.24	8.50
4	Wheat Flour	4.16	8.41	5.89	2.75
5	Education	3.94	14.30	9.91	3.85
6	Communication & Apparatus	3.15	1.09	0.04	0.01
7	Motor Fuel	3.03	22.47	16.21	5.45
8	Transport Services	2.70	9.13	14.85	4.93
9	Meat	2.43	21.42	11.38	3.77
10	Vegetable Ghee	2.07	31.41	5.09	1.16
Total		54.39			54.79
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 August, 2012.					

Table A3.1: Top Ten Contributors to CPI Food Inflation (YoY) in August 2012					
Items/ Contributors		Weights	YoY Change		Weighted Contribution
			Aug-11	Aug-12	
A. Ranked by Weighted Contribution					
1	Milk Fresh	6.68	21.33	12.95	11.50
2	Fresh Fruits	1.86	23.60	18.31	4.85
3	Meat	2.43	21.42	11.38	3.77
4	Cigarette	1.39	6.95	18.26	2.88
5	Wheat Flour	4.16	8.41	5.89	2.75
6	Tomatoes	0.44	-43.26	78.64	2.69
7	Cooking Oil	1.75	30.49	13.43	2.40
8	Onion	0.53	-27.90	46.27	2.35
9	Rice	1.58	23.63	12.80	2.13
10	Ready Made Food	1.23	18.48	10.14	1.57
Total		22.07			36.88
B. Ranked by Percentage Change					
1	Tomatoes	0.44	-43.26	78.64	2.69
2	Onion	0.53	-27.90	46.27	2.35
3	Pulse Gram	0.24	9.00	46.13	1.25
4	Besan	0.15	11.01	43.65	0.76
5	Gram Whole	0.16	26.59	23.96	0.51
6	Honey	0.04	17.90	21.08	0.13
7	Beans	0.03	9.61	19.60	0.06
8	Condiments	0.27	17.34	19.32	0.64
9	Fresh Fruits	1.86	23.60	18.31	4.85
10	Cigarette	1.39	6.95	18.26	2.88
Total		5.12			16.12
C. Ranked by Weights					
1	Milk Fresh	6.68	21.33	12.95	11.50
2	Wheat Flour	4.16	8.41	5.89	2.75
3	Meat	2.43	21.42	11.38	3.77
4	Vegetable Ghee	2.07	31.41	5.09	1.16
5	Fresh Fruits	1.86	23.60	18.31	4.85
6	Cooking Oil	1.75	30.49	13.43	2.40
7	Fresh Vegetable	1.68	-17.50	-5.27	-1.14
8	Rice	1.58	23.63	12.80	2.13
9	Cigarette	1.39	6.95	18.26	2.88
10	Chicken	1.36	18.76	-4.66	-0.85
Total		24.98			29.44
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 8.5 percent in August, 2012.					

Table A3.2: Top Ten Contributors to CPI Non-food Inflation (YoY) in August 2012					
Items/ Contributors		Weights	YoY Change		Weighted Contribution
			Aug-11	Aug-12	
A. Ranked by Weighted Contribution					
1	House Rent	21.81	7.51	6.52	12.89
2	Electricity	4.40	5.37	16.24	8.50
3	Motor Fuel	3.03	22.47	16.21	5.45
4	Transport Services	2.70	9.13	14.85	4.93
5	Education	3.94	14.30	9.91	3.85
6	Household Servant	1.04	9.75	28.72	2.98
7	Text Books	0.57	4.35	40.47	2.67
8	Personal Care	1.49	13.59	14.92	2.40
9	Footwear	1.55	1.79	16.28	2.18
10	Tailoring	0.88	15.53	18.26	1.92
Total		41.43			47.75
B. Ranked by Percentage Change					
1	Text Books	0.57	4.35	40.47	2.67
2	Household Servant	1.04	9.75	28.72	2.98
3	Motor Vehicle Tax	0.11	19.80	26.89	0.25
4	Doctor (MBBS) Clinic Fee	0.59	18.56	22.37	1.43
5	Fire Wood Whole	0.23	28.20	21.46	0.64
6	Utensils	0.32	11.36	21.34	0.68
7	Cleaning & Laundering	0.21	12.51	20.18	0.46
8	Dopatta	0.44	21.64	18.98	0.89
9	Woolen Cloth	0.88	20.35	18.64	1.80
10	Ready Made Garment	0.97	14.18	18.61	1.81
Total		5.37			13.61
C. Ranked by Weights					
1	House Rent	21.81	7.51	6.52	12.89
2	Electricity	4.40	5.37	16.24	8.50
3	Education	3.94	14.30	9.91	3.85
4	Communication & Apparatus	3.15	1.09	0.04	0.01
5	Motor Fuel	3.03	22.47	16.21	5.45
6	Transport Services	2.70	9.13	14.85	4.93
7	Cotton Cloth	1.73	17.46	8.68	1.52
8	Gas	1.58	13.55	-42.09	-10.84
9	Footwear	1.55	1.79	16.28	2.18
10	Personal Care	1.49	13.59	14.92	2.40
Total		45.39			30.88
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 9.4 percent in August, 2012.					

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

Groups	Decrease or no change	Subdued increase (Up to 5%)	Moderate increase (5 to 10%)	More than 10% increase
Food & Non-Alcoholic Beverages	Garlic, Sugar Refined, Ginger, Gur Av.Qlty, Pulse Masoor (Whole), Pulse Moong (Washed), Cardamom Small Av.Qlty	Biscuits-Packed, Chillies Green, Maida, Grapes, Salt Powdered (National/Shan), Cinamon Loose Av. Qlty, Custard Powder Rafhan 300	Mustard Oil Av.Qlty., Chips, Rusk (Papay), Almonds Whole Av.Qlty., Samosa (Vegetable), Fruit Juice Tetra Pack, Cooking Oil (Dalda), Apple	Tomatoes, Cloves Loose Av.Qlty, Bananas, Chillies Powd.National 200 Gm, Onion, Pulse Gram, Pepper Black National, Besan Av. Qlty., Gram Whole Black Av Qlty., Ice, Sweet melon (Garma), Powder Milk Nido 400Gm.
Alcoholic Beverages & Tobacco			Cigarettes Gold Leaf 20,S, Betel Leaves	Cigarettes K-20,S, Cigarettes Capstan 20,S, Cigarettes Morven Gold 20,S, Betel Nuts
Clothing & Footwear	Sports Shoes, Gents Shoe, Art 1109 Servis	Shoe Repair Half Sole, Long Cloth 57" Gul Ahmed/Al Karam, Child Shoe Power Lite Bata	Secondhand Winter Jacket, Handkerchief Sup. Qlty Pak, Lawn Printed Gul Ahmed/Al Karam, Tailoring Coat-Pant Suit, Azarband Cotton Avg.Qlty	Gents Spoung Chappal Bata, Ladies Spoung Chappal Bata, Ladies Sandal Bata, Foot Wear Local (Children), Awami-Suit W&W (Gents)Av.Qlty, Pullover Ladies Oxford/Bon, Tailoring Shirt, Foot Wear Local (Male), Washing Ch. (Kamiz-Shalwar)
Housing, Water, Elect, Gas & other Fuels	Gas Chrg All Over 500 Mmbtu, Gas Chrg Over 300 - 500 Mmbtu, Gas Chrg Overall/ Combined	Cement Blocks (6"X8"X12")	Timber Shesham Log, Water Charges Per House, Bricks (New) 1st Class, Electrician Wage Rate, Elect. Charges Upto 50 Units	Elect. Charges 01 - 100 Units, Firewood Whole, Elect. Charges 101 - 300 Units, Electrician Wage Rate, Synthetic Enemal ICI, Elect. Charges Overall/ Combined, Synthetic Enemal Robialac, Unskilled Labour Wage Rat
Furnishing & Household Equip. Maintenance etc	Match Box (Small)	Tube Light Philips 40 Watt, Air conditioner 1.5 Ton PEL, Electric Juicer, Bulb Philips 100-Watt, Split Air Conditioner 1.5 Ton	Electric Blub Energy Saver 14 Watt, Carpet Plain Av. Qlty, Washing Powder 1000 Grm (Express), Harpic, S. Steel Plate Avg. Qlty	Dinner Set Plastic 72 Pcs, Robin Blue (35 Gms), Elect. Iron Philips, Household Servant Female (Part Time), Table Shesham Wood, Lota Plastic (Med Size) Avg. Qlty, Washing Soap 250 Gm, Dari Cotton (6'X2 1/2')
Health	Amoxil Capsule 250 Mg., Entox Tab., Septran Tablets, Jouhar Joshanda, Calcium Syrup Sandoz, Sancos Syrup (50 ML)	Ventolin Tab. 2Mg., Betnesol Eye Drops, Daonil Tab. 5 Mg., Lederplex Syrup, Renitec Tab. 5 Mg.	Thermometer China, Vicks Vaporub/ Balm, Dettol (Medium), Ear Drops (Cardisorpine)	Cac. 1000 Tab, Hydryllin Syrup 120 ML., Disprin Tab., Panadol Tab. Extra/Plain, Doctor (Mbbs) Clinic Fee, Trisil Tab., Gripe-Water Woodward's, O.R.S. (Nimcol), Glycerin Small Bottle, Blood Test (Cp) Charges
Transport	Gas Cylinder S. Size (L.P.G), Bus Fare Outside City (Non A/C)	Motorcycle Yamaha 100 Cc, Bus Fare Outside City (A/C), Motorcycle Honda Cd-70, Motor Cycle Hero 70 Cc	Car Suzuki 1000 Cc, Suzuki Fare Maximum Within City, Bicycle With Tyres & Tube, Air Fare Economy Class.	Platform Ticket, Taxi 4 Seater Fare, Cycle Overhauling Charges, CNG, Car Tax For 800 Cc To 1300 Cc, Bus Fare Min (Within City), Tyre Puncture Charges, Full Tonga Charges, Train Fare 1st Slp.101-50, Tyre Car W/O Tube
Communication	Mobile Set Nokia/Sony/Ericsson Av.Qlty, Postal Envelope Domestic	Telephone Set Av. Qlty, T.C.S. Ch. Min.Within Zone, Mobile Cell Charges	Fax Charges (Local)	Postal Registration Charges, Postal Envelope For Saudi Arabia, Internet Charges
Recreation & Culture	English Book BA/B.Sc., Video Game Sega 16 Byte, Daily "Dawn", TV License Fee Domestic, Daily "Nawa-e-Waqt", Daily "Jang"	Radio With C.Player National, Ball Pen (Local), V.C.P. Panasonic/LG/National, Computer CD (Tdk/Imation), Tape Recorder Cassette (Blank), Urdu Book BA/B.Sc	Pencil Goldfish/Deer, Pen Ink Dollor 57 MI Bottle, Eng. Book Ist. yr Complete Set, Photostat Paper 70 Gm, Pakistan Studies Book BA/B.Sc, Cable Charges	English Book Class V1, English Book Class IX or X, Cinema A/C High Class, Urdu Book Class V (T.B.Board), Maths Book Class IX or X, Weekly "Mag", Cinema Non-A/C High Class, Maths Book Calss V (T.B.Board), Monthly "Naunehal Digest", Urdu Book Ist Year/ Inter
Education	MBA Tuition Fee, Govt. College Fee 4Th. Year, Govt. University Fee MS/MA	I.T. Tuition Fees, Pvt Med. College Fee MBBS (1st Year), Govt. Med. College Fee MBBS Ist Year		Govt. Engg. Coll. Fee 1st Year, Pvt School Fee Eng. Med (Class-X), Coaching Charges For Class XI/ XII Science Group, Coaching Fee For Class IX/ X, Pvt School Fee Eng. Med (Class-V)
Restaurant & Hotels			Tea Prepared (Ordinary), Cooked Dal (Av. Hotel), Bread Tandoori St. Size	Chicken Biryani Full/Double, Cooked Mutton (Av. Hotel), Cooked Beef (Av. Hotel)
Miscellaneous	Silver Tezabi 24 C,	Shampoo Sunsilk/Pantene 100 MI, Disposable Razor Gillette-II, Toilet Soap Lux 95 Gms, Hair Color Bigen	Wrist Watch Gents Citizen, Shaving Cream Touch-Me/Admiral, Toothbrush Shield	Toothpaste Med Size Colgate 70Gms, Wall Clock Quartz Av.Qlty, Face Cream Ponds (Medium), Nail Polish S. Miss/Medora, Gel Medium Size, Artificial Jewellery Set

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

	Up to Rs: 8000						Rs 8001- 12000					
	General		Food		Non-Food		General		Food		Non-Food	
	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY
1 Rawalpindi	2.1	11.4	3.2	12.0	0.7	10.5	1.8	11.2	2.9	11.8	0.6	10.5
2 Islamabad	1.5	11.2	2.1	11.3	0.6	10.9	1.6	10.0	2.0	11.0	1.1	8.9
3 Lahore	0.8	8.7	1.2	9.1	0.2	8.2	0.7	8.8	0.9	9.2	0.4	8.2
4 Gujranwala	1.7	9.5	2.9	11.6	0.0	6.7	1.5	9.4	2.6	11.7	0.2	6.9
5 Sialkot	0.4	8.5	0.4	10.1	0.5	6.2	0.3	8.7	0.2	10.5	0.5	6.7
6 Faisalabad	0.4	7.5	0.6	8.0	0.1	6.8	0.2	7.6	0.1	8.3	0.3	6.8
7 Multan	0.3	8.7	0.3	6.8	0.3	11.1	0.1	8.8	-0.1	7.2	0.4	10.7
8 Sargodha	0.5	8.1	0.7	4.9	0.2	12.1	0.4	8.2	0.5	4.9	0.3	11.8
9 Bahawalpur	0.0	10.1	-0.7	5.4	0.9	15.8	0.1	10.6	-0.7	6.4	0.9	15.2
10 Karachi	1.4	7.0	2.3	6.3	0.3	8.1	1.4	7.1	2.2	6.5	0.5	7.7
11 Hyderabad	1.2	6.4	1.9	4.2	0.3	9.4	1.2	6.9	1.9	4.8	0.4	9.4
12 Sukkur	1.0	7.4	1.3	4.9	0.6	10.6	0.7	7.9	0.9	5.7	0.5	10.4
13 Larkana	0.8	11.8	1.4	7.5	0.2	17.5	0.7	12.6	1.2	8.5	0.1	17.3
14 Peshawar	1.5	7.5	2.5	5.7	0.4	9.6	1.2	7.3	2.0	5.8	0.4	9.0
15 Bannu	2.0	11.2	2.9	7.6	1.1	15.9	1.8	10.8	2.3	8.0	1.3	14.0
16 Quetta	1.3	10.3	2.2	8.6	0.2	12.7	1.0	10.0	1.6	8.0	0.3	12.3
17 Khuzdar	0.7	6.5	0.4	3.3	1.0	10.4	0.7	6.8	0.4	3.6	1.1	10.3
	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	1.9	10.3	2.7	11.6	1.0	9.0	1.8	10.4	2.7	11.5	1.0	9.5
2 Islamabad	1.4	8.8	1.7	10.8	1.0	6.8	1.4	8.6	1.8	10.9	1.0	6.5
3 Lahore	0.7	8.1	0.8	9.7	0.6	6.2	0.7	8.6	0.7	10.1	0.7	7.2
4 Gujranwala	1.6	9.1	2.5	12.6	0.7	5.6	1.4	9.7	2.2	13.4	0.7	6.5
5 Sialkot	0.4	8.3	0.2	10.9	0.6	5.7	0.4	8.6	0.1	11.4	0.7	6.2
6 Faisalabad	0.1	6.8	0.0	8.8	0.4	4.9	0.2	7.4	-0.3	9.4	0.7	5.7
7 Multan	-0.1	7.9	-0.5	7.3	0.4	8.4	-0.2	8.5	-1.0	7.6	0.6	9.3
8 Sargodha	0.5	8.2	0.4	5.5	0.5	10.8	0.3	9.0	0.1	5.9	0.5	11.5
9 Bahawalpur	0.2	10.1	-0.6	6.5	0.9	13.5	0.3	11.5	-0.6	6.8	1.0	15.4
10 Karachi	1.5	6.6	2.2	7.0	0.8	6.2	1.5	7.5	2.2	7.2	1.0	7.8
11 Hyderabad	1.4	6.2	2.1	5.4	0.6	7.1	1.3	6.9	2.1	5.8	0.7	7.8
12 Sukkur	0.7	7.0	0.8	5.9	0.5	8.1	0.9	8.1	1.1	7.0	0.8	9.1
13 Larkana	0.5	12.7	0.9	9.4	0.2	16.0	0.4	13.6	0.8	10.7	0.1	16.2
14 Peshawar	1.3	6.3	2.2	5.8	0.4	6.7	1.1	6.8	1.8	6.0	0.4	7.5
15 Bannu	1.9	10.2	2.4	8.2	1.4	12.1	1.5	10.2	1.8	8.5	1.2	11.6
16 Quetta	1.0	8.9	1.4	8.0	0.6	9.9	1.0	9.0	1.3	7.7	0.6	10.1
17 Khuzdar	0.8	6.7	0.3	3.9	1.3	9.5	0.9	7.4	0.2	4.2	1.5	10.1
	Above Rs 35000						Combined					
	General		Food		Non-Food		General		Food		Non-Food	
	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY
1 Rawalpindi	1.5	10.1	2.3	11.2	1.1	9.6	1.6	10.3	2.6	11.4	1.0	9.5
2 Islamabad	1.1	8.4	0.9	10.1	1.2	7.5	1.1	8.6	1.0	10.2	1.2	7.4
3 Lahore	0.8	9.1	0.5	11.4	1.0	7.9	0.8	8.7	0.7	10.4	0.8	7.4
4 Gujranwala	1.2	10.1	1.8	14.4	0.9	7.9	1.4	9.5	2.3	13.1	0.7	6.9
5 Sialkot	0.5	8.1	0.1	12.0	0.7	6.2	0.4	8.3	0.1	11.4	0.6	6.0
6 Faisalabad	0.5	8.3	-0.3	10.5	0.9	7.3	0.3	7.5	-0.1	9.2	0.6	6.2
7 Multan	0.0	8.5	-1.7	8.0	0.9	8.7	0.0	8.3	-0.9	7.6	0.6	8.8
8 Sargodha	0.6	10.3	0.1	7.1	0.8	11.8	0.4	8.8	0.3	5.8	0.5	10.8
9 Bahawalpur	0.4	12.3	-0.2	8.3	0.7	14.2	0.2	11.1	-0.6	6.9	0.8	13.9
10 Karachi	1.7	8.7	2.0	7.6	1.6	9.2	1.6	7.9	2.1	7.2	1.3	8.4
11 Hyderabad	1.3	6.9	1.9	6.5	0.9	7.2	1.3	6.5	2.0	5.6	0.8	7.2
12 Sukkur	0.9	8.7	1.0	8.1	0.9	9.0	0.8	7.7	1.0	6.5	0.7	8.6
13 Larkana	0.1	13.3	0.3	11.1	0.0	14.3	0.5	12.6	0.9	9.5	0.2	14.8
14 Peshawar	1.0	7.2	1.0	6.0	1.0	7.7	1.1	6.9	1.7	5.9	0.7	7.5
15 Bannu	1.7	9.1	2.4	10.0	1.4	8.6	1.7	10.2	2.3	8.4	1.4	11.5
16 Quetta	0.8	8.5	1.0	7.1	0.8	9.2	1.0	8.8	1.3	7.7	0.7	9.6
17 Khuzdar	1.6	9.1	-0.8	4.5	2.7	11.3	0.8	7.0	0.3	3.8	1.2	9.3

Table A6: City- wise CPI Inflation (YoY) August, 2012							
	High inflation cities				Low inflation cities		
	General	Food	Non-food		General	Food	Non-food
Larkana	12.6	9.5	14.8	Gawadar	8.9	8.7	9.1
Sahiwal	12.4	12.1	12.7	Attock	8.8	10.2	7.9
Mingora	11.5	10.4	12.2	Quetta	8.8	7.7	9.6
Mianwali	11.4	8.1	13.9	Sargodha	8.8	5.8	10.8
Loralai&Cantt	11.2	8.8	12.8	Rahim Yar Khan	8.8	6.8	10.3
Bahawalpur	11.1	6.9	13.9	Lahore	8.7	10.4	7.4
Bahawalnagar	10.8	8.9	12.1	Islamabad	8.6	10.2	7.4
Rawalpindi	10.3	11.4	9.5	Muzaffargarh	8.4	7.4	9.1
Mithi	10.3	5.7	13.5	Multan	8.3	7.6	8.8
Jhang	10.2	8.0	11.8	Sialkot	8.3	11.4	6.0
Bannu	10.2	8.4	11.5	Dadu	8.2	7.9	8.4
Mardan	10.2	6.9	12.2	Wazirabad	8.2	10.5	6.6
D.I.Khan	9.8	9.5	10.0	Turbat	8.0	6.8	8.8
Gujranwala	9.5	13.1	6.9	Karachi	7.9	7.2	8.4
Nawabshah	9.3	8.4	9.9	Sukkur	7.7	6.5	8.6
				Abbotabad	7.5	7.8	7.3
				Faisalabad	7.5	9.2	6.2
				Mir Pur Khas	7.4	4.4	9.7
				Jehlum	7.4	7.5	7.4
				Vehari	7.1	3.0	10.2
				Khuzdar	7.0	3.8	9.3
				Peshawar	6.9	5.9	7.5
				Dera Mrd.Jamali	6.7	5.7	7.5
				D.G. Khan	6.6	6.8	6.5
				Hyderabad	6.5	5.6	7.2
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		
	Aug-11	Jul-12	Aug-12	Aug-11	Jul-12	Aug-12
<u>Up to Rs. 8000</u>						
General	1.3	0.9	1.0	11.3	8.9	8.6
Food	1.4	1.5	1.4	12.0	7.4	7.4
Non-food	1.1	0.1	0.4	10.5	11.0	10.3
<u>Rs. 8001- 12000</u>						
General	1.3	0.9	0.9	11.5	10.2	9.8
Food	1.4	1.6	1.2	12.5	8.0	7.8
Non-food	1.1	0.0	0.5	10.5	12.8	12.2
<u>Rs. 12001- 18000</u>						
General	1.2	1.0	0.8	11.5	10.1	9.7
Food	1.4	1.7	1.1	12.7	8.6	8.2
Non-food	0.9	0.2	0.6	10.3	11.7	11.4
<u>Rs. 18001- 35000</u>						
General	1.4	-0.6	0.8	11.4	9.0	8.3
Food	1.5	1.8	0.9	13.0	9.1	8.6
Non-food	1.4	-2.6	0.7	10.1	8.8	8.1
<u>Above Rs. 35000</u>						
General	1.5	-1.3	0.9	11.6	9.2	8.5
Food	1.4	1.9	0.7	13.9	10.0	9.1
Non-food	1.6	-2.9	1.1	10.5	8.7	8.2
<u>All income groups</u>						
General	1.4	-0.2	0.9	11.6	9.6	9.1
Food	1.4	1.8	0.9	13.2	9.1	8.5
Non-food	1.4	-1.7	0.9	10.4	10.0	9.4

Table A8: SPI Item-wise Price Movements

Sr.No.	Items	Unit	Prices Aug-12	Percentage change	
				YoY	MoM
1	Wheat	10Kg.	279.8	9.8	3.2
2	Wheat Flour Bag	10Kg.	309.0	9.2	0.9
3	Rice Basmati Broken	Kg.	66.4	12.8	1.0
4	Rice Irri-6	Kg.	48.8	9.3	1.2
5	Bread Plain Med. Size (340-400 Gm.)	Each	32.6	6.8	0.0
6	Beef	Kg.	264.4	10.3	0.4
7	Mutton	Kg.	507.8	10.8	0.4
8	Chicken Live (Farm)	Kg.	146.1	-11.1	-12.6
9	Milk Fresh	Litr	64.3	14.8	1.1
10	Curd	Kg.	74.9	13.7	0.4
11	Milk Powdered Nido	500G	290.0	26.4	0.9
12	Egg Hen (Farm)	Doz.	79.9	0.1	3.7
13	Mustard Oil	Kg.	187.6	9.6	0.3
14	Cooking Oil (Tin)	2.5Ltr	545.8	10.3	-0.6
15	Veg. Ghee (Tin)	2.5Kg.	536.1	8.3	-0.6
16	Veg. Ghee Loose	Kg.	167.6	0.7	-1.2
17	Bananas	Doz.	96.8	47.1	-4.6
18	Masoor Pulse Washed	Kg.	98.9	-6.7	-1.1
19	Moong Pulse Washed	Kg.	119.4	-14.4	-1.4
20	Mash Pulse Washed	Kg.	136.0	-11.3	-0.9
21	Gram Pulse Washed	Kg.	108.5	48.7	-0.1
22	Potatoes	Kg.	31.4	1.4	6.8
23	Onions	Kg.	36.6	52.7	34.4
24	Tomatoes	Kg.	56.3	52.9	81.3
25	Sugar	Kg.	53.9	-28.2	-0.6
26	Gur	Kg.	73.0	-17.6	-0.1
27	Salt Powdered Loose (Lahori)	Kg.	8.5	8.4	0.0
28	Red Chilies Powder Loose	Kg.	297.1	17.6	-1.3
29	Garlic	Kg.	109.2	-19.8	5.3
30	Tea (Yellow Label)	200Gm.	130.5	-0.8	-2.1
31	Cooked Beef Plate	Each	65.2	13.3	0.0
32	Cooked Dal Plate	Each	39.2	8.6	0.0
33	Tea Prepared (Sada)	Cup	15.0	9.4	0.0
34	Cigarettes K-2 (20'S)	20'S	32.0	12.3	0.0
35	Long Cloth (Coarse Latha)	Mtr.	140.4	44.8	0.5
36	Shirting	Mtr.	116.3	12.3	1.3
37	Lawn	Mtr.	161.0	63.7	0.5
38	Georgette (Voil Printed)	Mtr.	95.8	15.7	0.0
39	Sandal Gents Bata	Pair	499.0	0.0	0.0
40	Chappal Spong. Bata (Gents)	Pair	179.0	28.8	0.0
41	Sandal Ladies Bata	Pair	399.0	0.0	0.0
42	Electric Charges 1-50	Unit	2.0	7.0	0.0
43	Gas Charges upto 3.3719	Mmbtu	116.0	-7.3	0.0
44	Kerosene	Litr	111.1	12.8	6.9
45	Firewood	40Kg	471.9	17.5	-0.4
46	Energy Savor 14 Watts	Each	146.2	9.8	0.2
47	Washing Soap (200-250 Gm.)	Cake	20.3	16.2	2.0
48	Match Box	Each	1.1	3.8	0.0
49	Petrol	Litr	96.1	11.9	11.2
50	Diesel	Litr	104.7	12.6	6.6
51	L.P.G.(11 Kg Cylinder.)	Each	1384.1	-1.4	12.4
52	Tele. Local Call	Call	3.6	0.0	0.0
53	Bath Soap Lifebuoy (Standard)	Cake	32.0	6.7	0.0
Maximum				63.7	81.3
Median				9.6	0.0
Minimum				-28.2	-12.6

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

Groups	Decrease or no change	Subdued increase (Up to 5%)	Moderate increase (5 to 10%)	More than 10% increase
Agriculture Forestry & Fishery Products	Fibre Crops, Stimulant And Spice Crops, Edible Roots/Potatoes, Cotton Seeds, Poultry, Dry Fruits, Eggs, Unmanufactured Tobacco	Raw Animal Material/Wool, Maize	Rice, Other Oil Seeds, Pulses, Wheat, Sugar Crops	Fresh Fruits, Fish Live Fresh or Chilled, Vegetables, Fuel Wood in Logs, Hides and Fur Skins, Raw, Sorghum/Jowar, Milk From Bovine Animals, Millet/Bajra
Ores & Minerals, Electricity Gas & Water			Natural Gas Liquefied	Coal not Agglomerated, Electrical Energy, Salt & Pure Sodium Chloride
Food Products, Beverages and Tobacco, Textiles, Apparel and Leather Products	Sugar Refined, Synthetic Carpets, Blended Yarn, Nylon Yarn, Milk and Cream in Solid Form, Cotton Yarn, Chocolate, Oil Cakes, Woolen Carpets, Sugar Confectionary	Vegetables & Fruit Juices, Silk and Rayon Fabrics, Beverages, Mineral Water, Vegetable Ghee, Fruit Juices, Leather With Out Hairs, Vegetable Oil Refined, Coffee and Tea	Cotton Fabrics, Other Food Products, Towels, Quilts, Other Leather N.E.C, Wheat Flour	Spices, Other Cereal Flour, Footwear, Bed Sheets, Blankets, Dairy Products N.E.C, Processed Liquid Milk, Woven Fabrics, Tobacco Products, Other Fabrics, Meat of Animals, Dried Fruits & Nuts, Hosiery Products, Ice Cream, Ready Made Garments
Other Transportable Goods except Metal Products, Machinery and Equipments	Insecticides, Dying Materials	Chemicals	Kerosene Oil, Soaps & Detergent, Timber, Fertilizers, Furnace Oil, Auto Tyres, Matches, Mobil Oil, Coke	Paints & Varnishes, Printing Paper, Ceramics and Sanitary, Hard Board, Medicines, Bed Foams, Glass Sheets, Cement, Pesticides, Plastic Products, Other Glass Articles, Motor Sprit, Diesel Oil, Bricks Blocks and Tiles
Metal Product Machinery & Equipment	Tractors, Pig Iron, Engines and Motors, Vacuum Pumps, Concrete Mixer, Cultivators	Electrical Wires, Motor Cycles, Radio and Television, Pipe Fittings, Refrige,Wash& Sew Mach,Iron,Fan, Lathe Machines	Bicycles, Air Conditioners, Steel Bars & Sheets, Chuff Cutter	Steel Products, Motor Vehicles, Lighting Equipments

Table A10: Consumer Price Index Numbers by Major Groups and Composite Commodities				
Items and specification	Weights	Index		
		Aug-11	Jul-12	Aug-12
General	100.00	156.89	169.57	171.09
Food & Non-Alcoholic Beverages.	34.83	177.95	190.58	192.43
1 Wheat	0.35	150.12	159.07	161.25
2 Wheat Flour	4.16	158.86	165.74	168.22
3 Wheat Product	0.10	158.22	162.45	164.31
4 Besan	0.15	164.38	233.88	236.13
5 Rice	1.58	149.33	167.07	168.45
6 Cereals	0.16	179.57	196.40	197.29
7 Bakery & Confectionary	1.16	156.97	170.02	170.69
8 Nimco	0.46	172.25	191.57	192.39
9 Meat	2.43	193.43	214.77	215.44
10 Chicken	1.36	190.01	205.11	181.15
11 Fish	0.30	164.52	186.25	184.21
12 Milk Fresh	6.68	188.81	210.80	213.26
13 Milk Product	0.63	185.07	205.90	207.43
14 Milk Powder	0.11	154.11	180.01	181.39
15 Egg	0.46	155.84	154.16	163.77
16 Mustard Oil	0.10	145.96	160.06	160.17
17 Cooking Oil	1.75	144.71	163.95	164.15
18 Vegetable Ghee	2.07	155.92	164.31	163.86
19 Dry Fruits	0.25	188.89	199.15	203.16
20 Fresh Fruits	1.86	201.77	244.15	238.71
21 Pulse Masoor	0.27	159.37	143.47	142.88
22 Pulse Moong	0.23	267.93	230.89	228.62
23 Pulse Mash (Washed)	0.21	218.31	194.55	193.59
24 Pulse Gram	0.24	163.07	241.04	238.30
25 Gram Whole	0.16	185.26	229.76	229.65
26 Beans	0.03	173.25	205.15	207.20
27 Potatoes	0.47	209.66	189.45	201.64
28 Onion	0.53	134.96	154.19	197.41
29 Tomatoes	0.44	110.01	92.84	196.52
30 Fresh Vegetable	1.68	182.59	176.65	172.97
31 Sugar	1.04	266.42	197.18	195.29
32 Gur	0.02	271.10	221.22	222.88
33 Honey	0.04	195.85	237.13	237.13
34 Sweet Meet	0.25	181.24	200.89	201.85
35 Beverages	1.20	157.06	168.43	170.95
36 Jam, Tomato Ketchup & Pickle	0.25	166.77	172.43	173.19
37 Condiments	0.27	177.66	210.32	211.99
38 Spices	0.54	237.29	268.98	267.12
39 Tea	0.84	199.84	201.61	202.38
Alcoholic Beverages, Tobacco	1.41	160.77	189.36	189.91
40 Cigarette	1.39	160.76	189.57	190.12
41 Betel Leaves & Nuts	0.02	161.31	176.60	177.28
Clothing & Footwear	7.57	144.70	165.67	167.23
42 Cotton Cloth	1.73	143.76	155.55	156.24
43 Woolen Cloth	0.88	156.43	184.64	185.59
44 Ready Made Garment	0.97	141.95	164.95	168.36
45 Woolen Readymade Garments	0.40	138.77	161.83	161.44
46 Hosiery	0.51	153.36	173.15	175.66
47 Dopatta	0.44	151.28	178.69	180.00
48 Cleaning & Laundering	0.21	153.99	182.46	185.07

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

Items and specification	Weights	Index		
		Aug-11	Jul-12	Aug-12
49 Tailoring	0.88	168.69	195.36	199.50
50 Footwear	1.55	122.69	142.27	142.67
Housing, Water, Elect, Gas & Other Fuel	29.41	141.69	147.92	147.95
51 House Rent	21.81	128.63	137.02	137.02
52 Construction Input Item	0.56	175.69	198.90	199.78
53 Construction Wage Rate	0.33	148.52	167.76	168.30
54 Water Supply	0.50	123.01	133.23	133.23
55 Electricity	4.40	168.93	196.37	196.37
56 Gas	1.58	232.00	134.34	134.34
57 Kerosene Oil	0.01	228.72	243.58	253.42
58 Fire Wood Whole	0.23	186.23	225.49	226.19
Furnished H.Hold Equip. & Maint. Etc	4.21	148.31	174.01	174.05
59 Furniture	0.33	143.22	163.36	164.07
60 Household Textile	0.65	146.29	170.35	170.63
61 Household Equipment	0.59	145.99	155.52	155.95
62 Utensils	0.32	141.78	173.16	172.04
63 Plastic Products	0.25	156.73	173.73	173.77
64 Washing Soap & Detergent	0.79	164.98	189.47	189.11
65 Sewing Needle & Dry Cell	0.15	133.22	148.64	148.18
66 Household Servant	1.04	141.03	181.30	181.54
67 Marriage Hall Charges	0.08	161.65	190.06	189.00
Health	2.19	131.80	149.84	152.39
68 Drug Medicine	1.27	120.59	132.72	135.65
69 Medical Equipment	0.01	169.05	189.54	191.94
70 Doctor (MBBS) Clinic Fee	0.59	153.58	185.15	187.93
71 Medical Test	0.32	135.01	151.52	152.08
Transport	7.20	161.69	178.58	186.61
72 Motor Vehicle	0.66	136.84	150.32	150.97
73 Motor Vehicle Accessories	0.24	177.26	203.03	203.89
74 Motor Fuel	3.03	157.72	164.31	183.29
75 Mechanical Service	0.46	151.43	179.09	179.46
76 Motor Vehicle Tax	0.11	119.80	152.02	152.02
77 Transport Services	2.70	174.25	200.29	200.12
Communication	3.22	123.34	123.56	123.56
78 Postal Services	0.07	163.05	171.37	171.37
79 Communication & Apparatus	3.15	122.50	122.55	122.55
Recreation & Culture	2.02	139.07	164.63	165.19
80 Recreation & Culture	0.86	114.75	121.45	121.64
81 Text Books	0.57	164.00	230.22	230.37
82 News Papers	0.19	141.92	149.97	154.22
83 Stationery	0.40	154.81	171.42	171.61
Education	3.94	139.75	152.71	153.60
84 Education	3.94	139.75	152.71	153.60
Restaurants And Hotels	1.23	178.46	196.24	196.56
85 Ready Made Food	1.23	178.46	196.24	196.56
Miscellaneous Goods And Services	2.76	172.21	190.67	192.44
86 Personal Care	1.49	152.78	174.64	175.58
87 Cosmetics	0.39	132.99	148.03	148.35
88 Blades	0.03	152.27	168.82	169.56
89 Personal Equipments	0.84	225.24	239.33	243.27

Table A11: Wholesale Price Index Numbers by Major Groups and Composite Commodities			
Items and Specifications	Index		
	Aug-11	Jul-12	Aug-12
General	178.24	190.05	191.99
Agriculture Forestry & Fishery	189.98	197.57	196.79
1 Wheat	156.81	164.32	168.38
2 Maize	169.61	166.89	170.14
3 Rice	144.66	157.90	158.39
4 Sorghum/Jowar	178.57	201.88	201.88
5 Millet/Bajra	159.94	176.57	179.34
6 Vegetables	177.31	185.97	210.80
7 Fresh Fruits	187.76	287.82	280.12
8 Dry Fruits	188.35	173.89	174.44
9 Cotton Seeds	196.72	181.23	174.78
10 Other Oil Seeds	162.07	174.82	176.96
11 Edible Roots/ Potatoes	224.71	178.09	195.16
12 Stimulant And Spice Crops	205.61	170.53	166.85
13 Pulses	203.30	221.59	219.37
14 Sugar Crops	253.58	267.92	267.92
15 Fibre Crops	234.75	194.22	186.59
16 Unmanufactured Tobacco	168.65	167.67	167.67
17 Poultry	208.01	222.42	185.32
18 Milk From Bovine Animals	185.28	207.47	208.85
19 Eggs	168.77	155.50	161.94
20 Raw Animal Material/Wool	132.25	135.38	134.22
21 Hides And Fur Skins, Raw	121.32	137.11	137.25
22 Fuel Wood In Logs	178.37	203.50	203.50
23 Fishes Live Fresh Or Chilled	136.10	171.26	175.63
Ores/Minerals, Gas & Elect.	170.01	206.19	207.36
24 Coal Not Agglomerated	125.49	196.08	196.08
25 Natural Gas Liquefied	179.82	188.89	191.36
26 Salt & Pure Sodium Chloride	144.01	165.22	162.41
27 Electrical Energy	166.13	226.10	226.10
Food, Beverages, Tobacco, Textiles	176.26	182.41	183.90
28 Meat Of Animals	199.71	225.25	225.92
29 Vegetables & Fruit Juices	172.84	179.40	181.33
30 Dried Fruits & Nuts	189.49	207.20	212.89
31 Fruit Juices	153.15	156.40	156.91
32 Vegetable Oil Refined	154.78	158.08	157.66
33 Vegetable Ghee	140.73	145.30	144.58
34 Oil Cakes	158.07	148.24	155.00
35 Processed Liquid Milk	172.50	202.74	205.63
36 Milk And Cream In Solid Form	180.03	169.39	169.45
37 Ice Cream	153.62	170.00	170.00
38 Dairy Products N.E.C	171.36	203.56	204.36
39 Wheat Flour	147.54	153.66	155.10
40 Other Cereal Flour	146.64	213.80	210.99
41 Sugar Refined	280.55	203.40	204.68
42 Chocolate	101.46	99.19	99.19
43 Sugar Confectionary	100.89	100.40	100.40
44 Coffee And Tea	189.83	191.91	190.97
45 Spices	208.03	305.49	304.33
46 Other Food Products	294.55	314.93	317.63
47 Mineral Water	160.81	165.88	166.05
48 Beverages	130.69	135.30	135.30
49 Tobacco Products	177.98	208.80	208.80
50 Cotton Yarn	205.27	198.24	200.46
51 Nylon Yarn	194.90	175.86	176.45
52 Blended Yarn	210.43	186.60	187.05
53 Woven Fabrics	144.44	169.72	169.72
54 Cotton Fabrics	159.92	174.86	174.86
55 Other Fabrics	144.15	165.46	165.74
56 Silk And Rayon Fabrics	137.48	142.47	143.08

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

Items and Specifications		Index		
		Aug-11	Jul-12	Aug-12
57	Towels	180.25	192.17	193.36
58	Blankets	137.48	164.83	165.83
59	Bed Sheets	155.69	185.57	189.27
60	Quilts	139.42	147.05	147.05
61	Woolen Carpets	107.14	106.55	106.55
62	Synthetic Carpets	155.52	128.41	128.41
63	Hosiery Products	148.81	164.70	164.85
64	Ready Made Garments	122.06	127.25	134.39
65	Leather With Out Hairs	107.45	109.83	109.83
66	Other Leather N.E.C	116.33	122.57	122.57
67	Footwear's	101.48	128.50	128.50
Other Transportable Goods		184.17	195.56	202.63
68	Timber	135.31	145.11	145.58
69	Printing Paper	118.38	153.92	153.92
70	Hard Board	141.67	166.67	166.67
71	Coke	155.28	163.45	163.45
72	Motor Sprit	143.22	143.91	160.78
73	Diesel Oil	225.88	232.99	251.19
74	Kerosene Oil	230.92	232.52	252.20
75	Furnace Oil	186.14	189.21	199.36
76	Mobil Oil	170.23	179.57	179.57
77	Chemicals	139.77	146.39	145.05
78	Dying Materials	106.14	104.26	104.26
79	Fertilizers	244.23	261.59	261.86
80	Pesticides	161.30	184.25	184.15
81	Insecticides	128.40	117.64	117.64
82	Paints & Varnishes	176.38	233.80	233.80
83	Medicines	115.90	134.27	134.51
84	Soaps & Detergent	144.47	157.12	157.22
85	Auto Tyres	165.78	176.49	176.49
86	Plastic Products	167.81	191.18	191.29
87	Glass Sheets	159.49	183.78	183.78
88	Other Glass Articles	192.36	217.98	217.98
89	Ceramics And Sanitary	130.68	150.87	154.64
90	Bricks Blocks And Tiles	155.42	170.40	171.37
91	Cement	156.55	180.22	180.22
92	Bed Foams	121.17	133.83	139.83
93	Matches	115.66	122.82	122.82
Metal Product Machinery & Equip		146.74	158.63	158.17
94	Pig Iron	128.97	128.97	128.97
95	Steel Bars & Sheets	130.79	139.57	138.84
96	Pipe Fittings	138.68	141.04	142.07
97	Steel Products	139.19	160.53	160.60
98	Engines And Motors	109.07	109.07	109.07
99	Vacuum Pumps	115.39	115.39	115.39
100	Air Conditioners	162.61	172.67	172.67
101	Cultivators	184.66	184.66	184.66
102	Chuff Cutter	131.08	138.54	138.54
103	Tractors	180.89	161.96	161.96
104	Lathe Machines	147.51	147.68	147.68
105	Concrete Mixer	138.83	138.83	138.83
106	Refrige,Wash& Sew Mach, Iron,Fan	160.46	164.31	164.34
107	Electrical Wires	152.67	163.80	159.57
108	Lighting Equipments	130.07	146.79	144.85
109	Radio And Television	128.54	132.73	132.73
110	Motor Vehicles	147.80	167.04	167.04
111	Motor Cycles	121.17	125.19	125.19
112	Bicycles	160.14	175.08	175.08

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
2010	Jan	129.64	138.54	124.31	136.97	138.94	135.72	141.97
	Feb	130.13	139.06	124.78	138.26	139.65	137.38	143.00
	Mar	131.75	141.71	125.78	140.35	141.71	139.49	144.87
	Apr	134.16	145.24	127.52	143.09	143.76	142.66	146.52
	May	134.34	145.68	127.54	144.73	144.13	145.11	147.54
	Jun	134.83	146.63	127.76	144.97	147.15	143.58	147.90
	Jul	137.62	149.33	130.60	147.38	149.13	146.27	152.10
	Aug	140.63	156.70	131.00	150.19	152.48	148.74	155.44
	Sep	143.49	163.96	131.22	152.74	155.52	150.98	161.00
	Oct	144.90	163.90	133.51	155.40	156.03	155.00	163.01
	Nov	146.34	166.59	134.20	159.34	157.03	160.81	167.56
	Dec	145.90	163.69	135.24	162.48	155.88	166.67	166.52
2011	Jan	147.67	166.52	136.37	165.58	159.08	169.70	166.96
	Feb	146.85	163.56	136.83	168.82	158.33	175.49	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	144.63	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

*: all groups combined

Table A13: International Commodity Prices/ Indices

	May-12	Jun-12	Jul-12	Aug-12
Energy				
Crude Oil (US\$ per barrel) *	104.2	90.7	96.8	105.3
IMF Energy Index (2005 = 100)	194.1	172.4	181.1	194.9
WB Energy Index (2005 = 100) @	185.7	163.6	173.3	186.9
Food				
Rice (\$/MT)	612.4	606.1	578.4	577.6
Wheat (\$/MT)	264.4	276.2	345.7	349.4
Sugar (US cent/ pound)	20.3	20.1	22.8	20.5
Palm Oil (\$/MT)	1,031.1	927.6	952.5	930.6
Soybean Oil (\$/MT)	1,134.6	1,097.8	1,175.3	1,188.5
Non-Food Non-Energy				
Cotton Outlook 'A' Index #	88.5	82.2	84.0	84.4
IMF Metal Price Index (2005 = 100)	193.3	185.7	183.2	172.5
Copper (\$/MT)	7,896.9	7,428.3	7,584.3	7,510.4
Aluminum (\$/MT)	2,002.5	1,885.5	1,876.3	1,843.3
Iron Ore (\$ cents/dry MT)	136.3	134.6	127.9	107.8
Tin (\$/MT)	20,295.3	19,255.4	18,546.1	18,675.6
Nickle (\$/MT)	16,968.3	16,603.7	16,128.4	15,704.0
Zinc (\$/MT)	1,928.0	1,855.9	1,847.8	1,816.3
Lead (\$/MT)	1,999.3	1,851.0	1,881.5	1,897.8
Uranium (\$/MT)	51.9	50.8	50.4	49.3
DAP (\$/MT)	553.0	564.4	563.1	559.0
Urea (\$/MT)	496.7	420.0	384.5	374.9

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	FY10	FY11	FY12	FY13
Jul	122.46	137.62	154.72	169.57
Aug	124.68	140.63	156.89	171.09
Sep	124.89	143.49	158.50	
Oct	125.64	144.90	160.79	
Nov	127.30	146.34	161.25	
Dec	126.37	145.90	160.12	
Jan	129.64	147.67	162.58	
Feb	130.13	146.85	163.07	
Mar	131.75	148.91	164.98	
Apr	134.16	150.99	168.00	
May	134.34	151.33	169.93	
Jun	134.83	152.78	169.99	
Seasonally Adjusted Series				
Jul	122.19	137.34	154.40	169.22
Aug	123.98	139.83	155.98	170.12
Sep	124.23	142.70	157.60	
Oct	124.55	143.61	159.32	
Nov	126.65	145.59	160.42	
Dec	127.16	146.83	161.15	
Jan	129.87	147.93	162.88	
Feb	130.98	147.86	164.24	
Mar	132.51	149.80	165.97	
Apr	134.11	150.91	167.87	
May	134.77	151.83	170.53	
Jun	135.40	153.41	170.67	

Table 15. CPI Food Data Series Original and Seasonally Adjusted

Original Series				
Period	FY10	FY11	FY12	FY13
Jul	130.97	149.33	174.80	190.72
Aug	134.95	156.70	177.32	192.47
Sep	135.20	163.96	180.16	
Oct	135.98	163.91	183.07	
Nov	138.87	166.59	183.26	
Dec	135.81	163.69	179.21	
Jan	138.54	166.52	181.90	
Feb	139.06	163.56	180.69	
Mar	141.71	167.10	183.46	
Apr	145.24	169.25	187.43	
May	145.69	168.77	187.75	
Jun	146.63	169.88	187.35	
Seasonally Adjusted Series				
Jul	130.61	148.89	174.31	190.19
Aug	133.37	154.98	175.44	190.49
Sep	133.08	161.23	177.13	
Oct	133.43	160.62	179.21	
Nov	136.57	163.61	179.81	
Dec	136.98	165.04	180.58	
Jan	138.96	167.07	182.57	
Feb	141.51	166.56	184.10	
Mar	143.46	169.17	185.69	
Apr	145.77	169.77	187.93	
May	147.09	170.56	189.88	
Jun	148.73	172.57	190.46	

Table 16: CPI Monthly & Average Seasonal Factors					
Period	FY10	FY11	FY12	FY13	Average
Jul	100.22	100.21	100.21	100.21	100.2
Aug	100.57	100.57	100.57	100.57	100.6
Sep	100.53	100.56	100.57		100.6
Oct	100.87	100.90	100.92		100.9
Nov	100.51	100.52	100.52		100.5
Dec	99.38	99.37	99.36		99.4
Jan	99.82	99.82	99.82		99.8
Feb	99.35	99.32	99.29		99.3
Mar	99.43	99.41	99.40		99.4
Apr	100.04	100.05	100.08		100.1
May	99.68	99.67	99.65		99.7
Jun	99.58	99.59	99.60		99.6

Table 17: CPI Food Monthly & Average Seasonal Factors					
Period	FY10	FY11	FY12	FY13	Average
Jul	100.27	100.29	100.28	100.28	100.3
Aug	101.18	101.11	101.07	101.04	101.1
Sep	101.60	101.69	101.71		101.7
Oct	101.91	102.05	102.16		102.0
Nov	101.68	101.82	101.92		101.8
Dec	99.15	99.19	99.24		99.2
Jan	99.70	99.67	99.64		99.7
Feb	98.27	98.20	98.15		98.2
Mar	98.78	98.78	98.80		98.8
Apr	99.63	99.69	99.73		99.7
May	99.05	98.95	98.88		99.0
Jun	98.59	98.44	98.37		98.5

Table 18: CPI Month-on-Month Change Original & Seasonally Adjusted				
Original Series				
Period	FY10	FY11	FY12	FY13
Jul	1.51	2.07	1.27	-0.25
Aug	1.81	2.19	1.40	0.90
Sep	0.17	2.03	1.03	
Oct	0.60	0.98	1.44	
Nov	1.32	0.99	0.29	
Dec	-0.73	-0.30	-0.70	
Jan	2.59	1.21	1.54	
Feb	0.38	-0.56	0.30	
Mar	1.24	1.40	1.17	
Apr	1.83	1.40	1.83	
May	0.13	0.23	1.15	
Jun	0.36	0.96	0.04	
Seasonally Adjusted Series				
Jul		1.43	0.64	-0.85
Aug	1.46	1.82	1.03	0.53
Sep	0.20	2.05	1.03	
Oct	0.26	0.64	1.09	
Nov	1.68	1.38	0.69	
Dec	0.40	0.85	0.46	
Jan	2.13	0.75	1.07	
Feb	0.85	-0.05	0.83	
Mar	1.17	1.31	1.06	
Apr	1.21	0.74	1.14	
May	0.49	0.61	1.58	
Jun	0.47	1.04	0.08	

Table 19: CPI Food Month-on-Month Change Original & Seasonally Adjusted Series				
Original Series				
Period	FY10	FY11	FY12	FY13
Jul	3.32	1.84	2.90	1.80
Aug	3.04	4.93	1.44	0.92
Sep	0.19	4.64	1.60	
Oct	0.58	-0.04	1.61	
Nov	2.12	1.64	0.11	
Dec	-2.20	-1.74	-2.21	
Jan	2.01	1.73	1.50	
Feb	0.38	-1.77	-0.67	
Mar	1.91	2.16	1.53	
Apr	2.49	1.28	2.16	
May	0.31	-0.28	0.17	
Jun	0.65	0.66	-0.21	
Seasonally Adjusted Series				
Jul		0.11	1.01	-0.14
Aug	2.11	4.09	0.65	0.16
Sep	-0.22	4.03	0.96	
Oct	0.27	-0.38	1.17	
Nov	2.35	1.86	0.34	
Dec	0.30	0.87	0.43	
Jan	1.44	1.23	1.10	
Feb	1.84	-0.30	0.84	
Mar	1.38	1.57	0.86	
Apr	1.61	0.36	1.21	
May	0.90	0.47	1.04	
Jun	1.11	1.17	0.31	

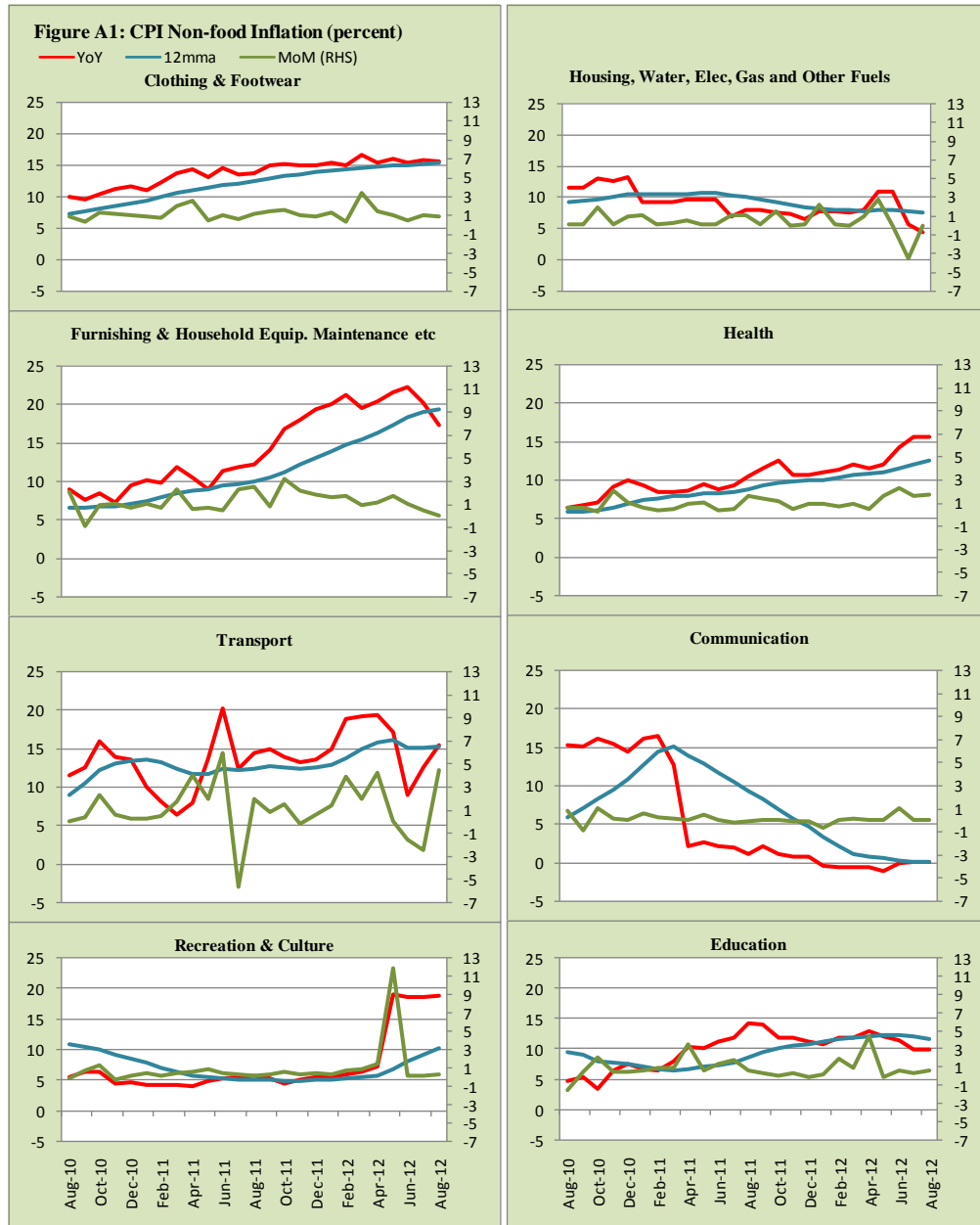


Figure A2: Frequency Distribution of Price Changes of CPI Items, August 2012

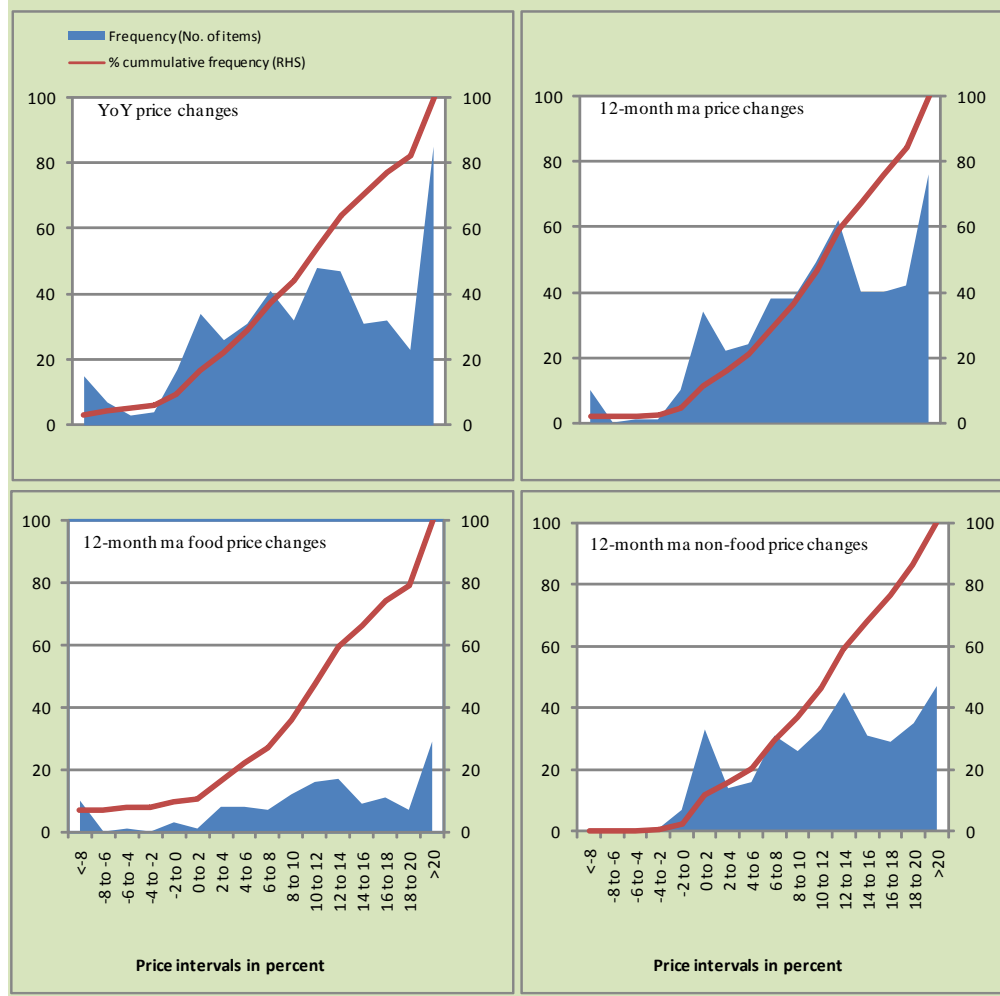
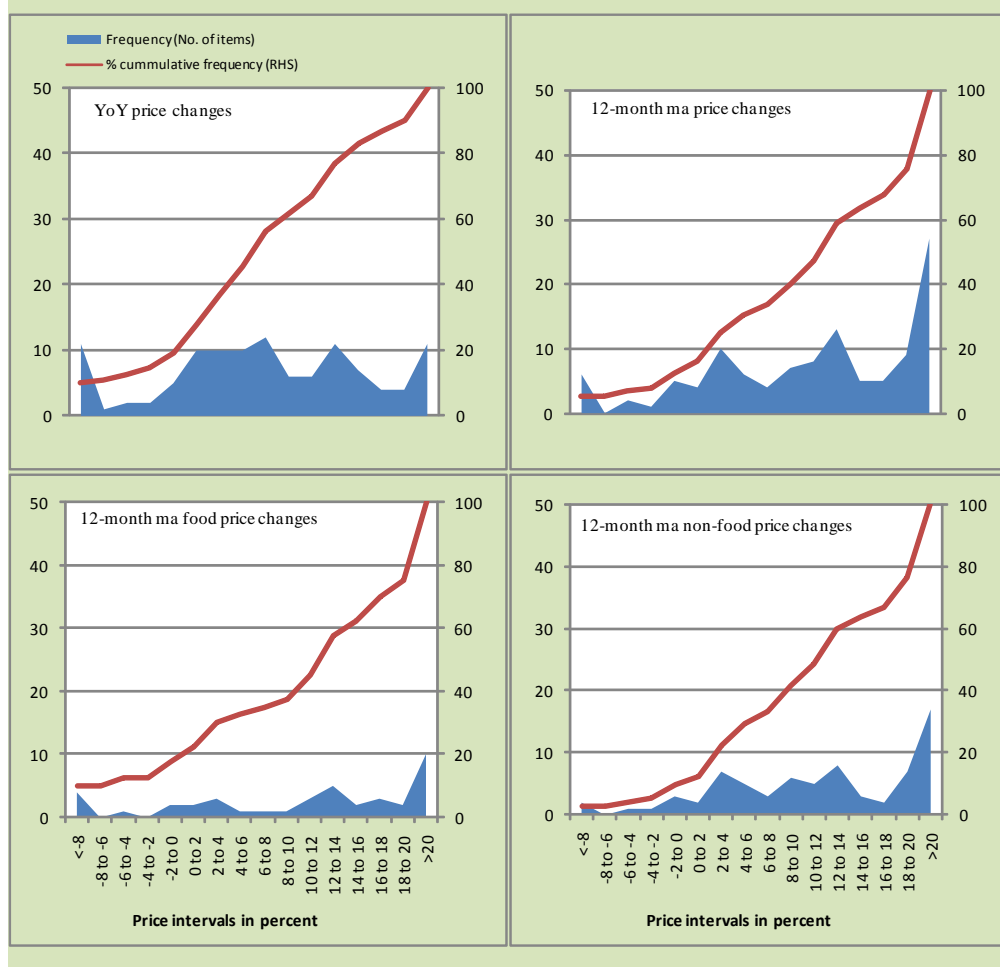
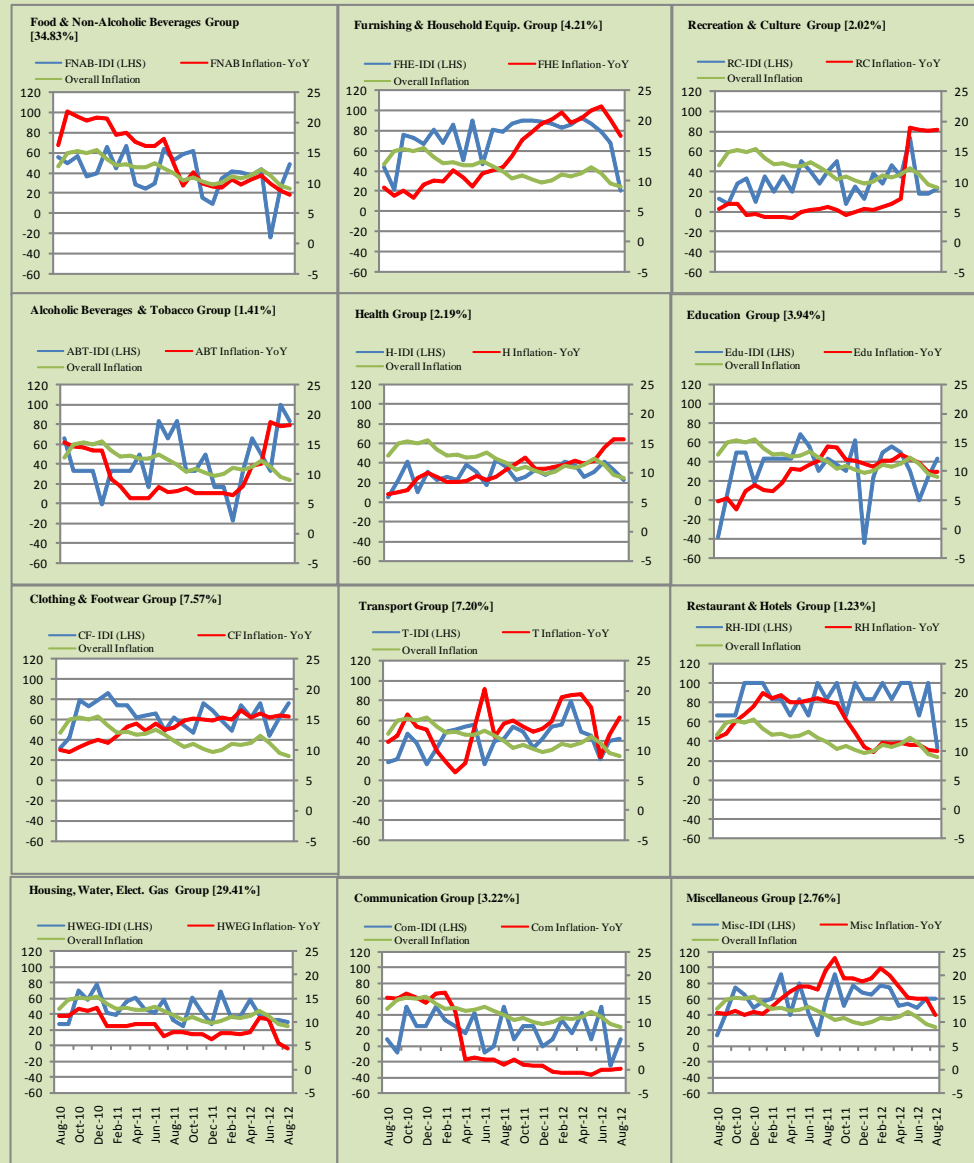


Figure A3: Frequency Distribution of Price Changes of WPI Commodities, August 2012



Inflation Monitor, August 2012

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



Numbers in square brackets show the weights of respective groups in the CPI baskets.

Annexure B**Technical Notes**

1. All the three measures of inflation, viz. CPI, WPI and SPI are computed by the following Laspeyres Index formula:

$$I_t = \sum_j w_0^j \left(\frac{P_t^j}{P_0^j} \right)$$

Where I_t is price index, w_0^j is weight of commodity j in the overall basket, P_t^j is price of commodity j in period t and P_0^j is its price in the base year.

2. Base year for all the indices is the year 2007-08.
3. CPI basket contains 487 consumers' goods; WPI basket contains 463 items; SPI contains 53 items.
4. YoY inflation is the percent change of an index in a given month over the index in the same month of the last year. It is computed as follows:

$$\pi_t = \left(\frac{I_t}{I_{t-12}} - 1 \right) \times 100$$

5. Period average inflation is the percent change of the average index during the period from July to the given month of a fiscal year over the average index during the corresponding period of the last year. It is computed as follows:

$$\bar{\pi}_t = \left(\frac{\sum_{i=0}^{t-v} I_{t-i}}{\sum_{i=0}^{t-12-v} I_{t-12-i}} - 1 \right) \times 100$$

Where v is the serial number of the month of July of current fiscal year in a given time series.

6. Monthly inflation is the percent change of an index in a given month over the index in the preceding month. It is computed as follows:

$$\pi_t = \left(\frac{I_t}{I_{t-1}} - 1 \right) \times 100$$

7. 12-month moving average inflation (Long-run trend inflation) is the percent change of 12-month moving average of a price index; it is computed as follows:

$$\tilde{\pi}_t = \left(\frac{\sum_{i=0}^{11} I_{t-i}}{\sum_{i=0}^{11} I_{t-12-i}} - 1 \right) \times 100$$

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

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

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

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

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

Where C_{it} : Contribution of i^{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.