

Inflation Monitor

July 2012



State Bank of Pakistan

Statistics & DWH Department

ISSN 1992-8327 (print)

ISSN 1992-8335 (online)

The analysis in this document is based on data

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

http://www.sbp.org.pk/publications/inflation_Monitor

Contents	Page
1. Inflation in Brief	1
2. City- wise Inflation	6
3. Income Group- wise Inflation	7
4. Weighted Contribution	9
5. Inflation Diffusion Index	10
6. Domestic Commodity Prices	11
7. Global Commodity Prices	11
8. Seasonal Adjustment in CPI	12
Annexure A	
Table A1 CPI Inflation by Groups	16
Table A2 Distribution of Price Changes (YoY) of CPI Basket	16
Table A3 Top Ten Contributors to CPI Inflation (YoY)	17
Table A3.1 Top Ten Contributors to CPI Food Inflation (YoY)	18
Table A3.2 Top Ten Contributors to CPI Non-Food Inflation (YoY)	19
Table A4 Distribution of Price Changes (YoY) - Selected CPI Items	20
Table A5 City-wise CPI Inflation by Income Groups	21
Table A6 City- wise CPI Inflation (YoY)	22
Table A7 Income Group-wise Inflation	23
Table A8 SPI Item-wise Price Movements	24
Table A9 Distribution of Price Changes (YoY)-WPI Items	25
Table A10 Consumer Price Index Numbers by Major Groups and Selected Commodities	26-27
Table A11 Wholesale Price Index Numbers by Major Groups and Selected Commodities	28-29
Table A12 Price Indices	30
Table A13 International Commodity Prices/ Indices	31
Table A14 CPI Data Series- Original and Seasonally Adjusted	32
Table A15 CPI Food Data Series- Original and Seasonally Adjusted	33
Table A16 CPI Monthly & Average Seasonal Factors	34
Table A17 CPI Food Monthly & Average Seasonal Factors	34
Table A18 CPI Month-on-Month % Change- Original & Seasonally Adjusted	35
Table A19 CPI Food Month-on-Month % Change- Original & Seasonally Adjusted	36
Figure A1 CPI Non-food Inflation	37
Figure A2 Frequency Distribution of Price Changes of CPI Items	38
Figure A3 Frequency Distribution of Price Changes of WPI Commodities	39
Figure A4 Group- wise Inflation Diffusion Index and Respective/ Overall YoY Inflation	40
Annexure B Technical Notes	41-44

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Review

Inflation in Brief

1. Headline CPI inflation (2007-08=100) is recorded at 9.6 percent on year-on-year basis in July 2012 as compared to 11.3 percent in the previous month and 12.4 percent in the corresponding month of last year.
2. CPI inflation on month-on-month basis is recorded at -0.2 percent in July 2012 as compared to 0.0 percent in the previous month and 1.3 percent in the corresponding month of last year. Seasonally adjusted month-on-month CPI inflation decreased to -0.8 percent in July 2012 as compared to 0.1 percent in the previous month.
3. Core inflation (trimmed) on year-on-year basis decreased to 10.7 percent in July 2012 as compared to 11.1 percent in the previous month and it was 11.9 percent in the corresponding month of last year.
4. On month-on-month basis, the Core inflation (trimmed) increased to 0.7 percent in July 2012 as compared to 0.5 percent in June 2012 and it was 1.1 percent in corresponding month of last year.
5. Non-food, non-energy inflation measured by CPI Core (NFNE) on year-on-year basis slightly decreased to 11.3 percent in July 2012 as compared to 11.5 percent in June 2012 and it was 9.6 percent in July 2011.
6. Core NFNE inflation on month-on-month basis increased to 1.0 percent in July 2012 when compared to 0.7 percent a month earlier. The rate of change in Core NFNE in July 2011 was 1.2 percent.
7. WPI inflation on year-on-year basis increased to 7.2 percent in July 2012 when compared to 6.4 percent a month earlier. During July 2011, WPI inflation was recorded at 20.3%.

8. WPI inflation on month-on-month basis increased to 0.4 percent in July 2012 as compared to 0.0 percent a month earlier. It was -0.4 percent in July 2011.
9. SPI inflation on year-on-year basis decreased to 7.3 percent in July 2012 as compared to 11.9 percent a month earlier and 12.7 percent in corresponding month of the last year.
10. SPI inflation on month-on-month basis is recorded at -2.2 percent in July 2012 as compared to 1.8 percent a month earlier and 2.0 percent in July 2011.

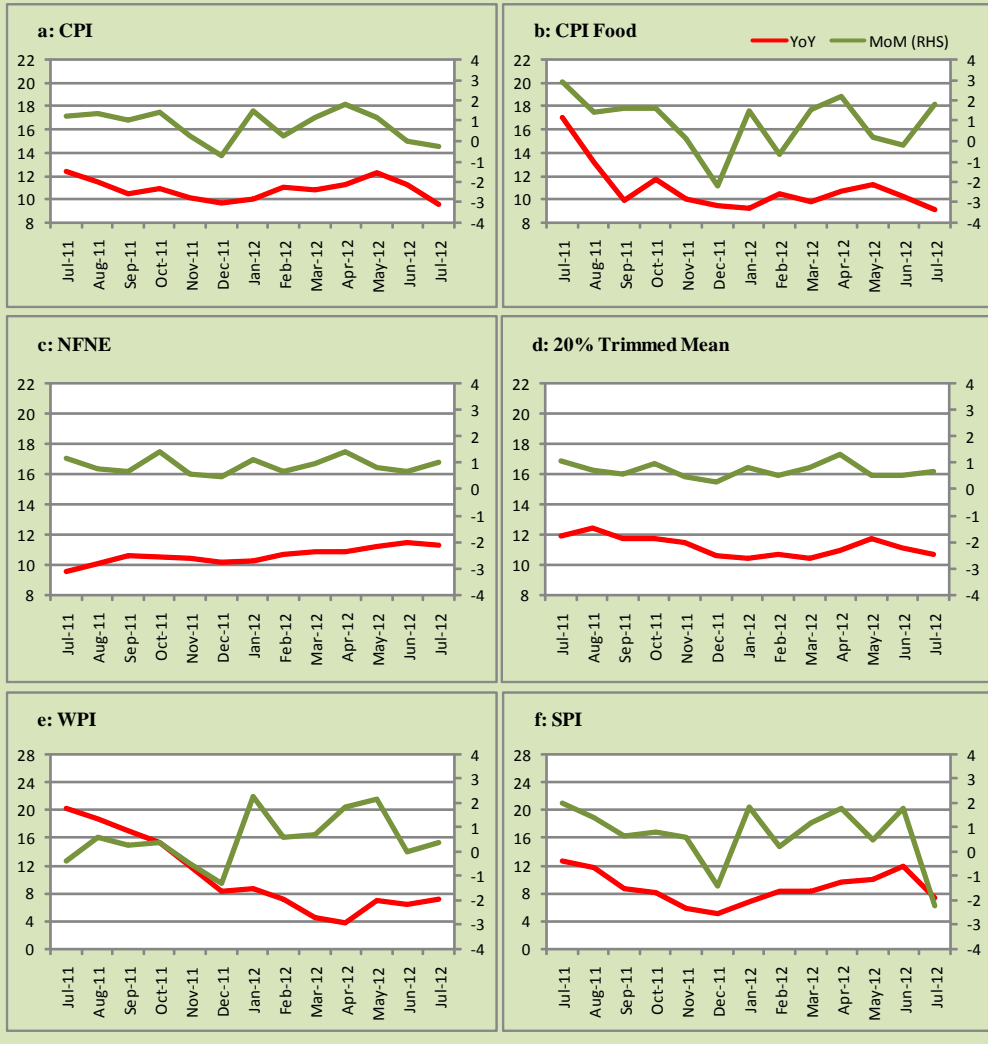
Table 1.1 Inflation Trends (percent) (Base 2007- 08 = 100)

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
Jul-11	12.4	1.3	17.1	2.9	9.3	0.1	9.6	1.2	11.9	1.1	20.3	-0.4	12.7	2.0
Aug-11	11.6	1.4	13.2	1.4	10.4	1.4	10.1	0.8	12.4	0.7	18.7	0.6	11.9	1.4
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

* NFNE is Non-food non-energy

** SPI for all income groups combined

Fig 1.1: Summary of Price Inflation



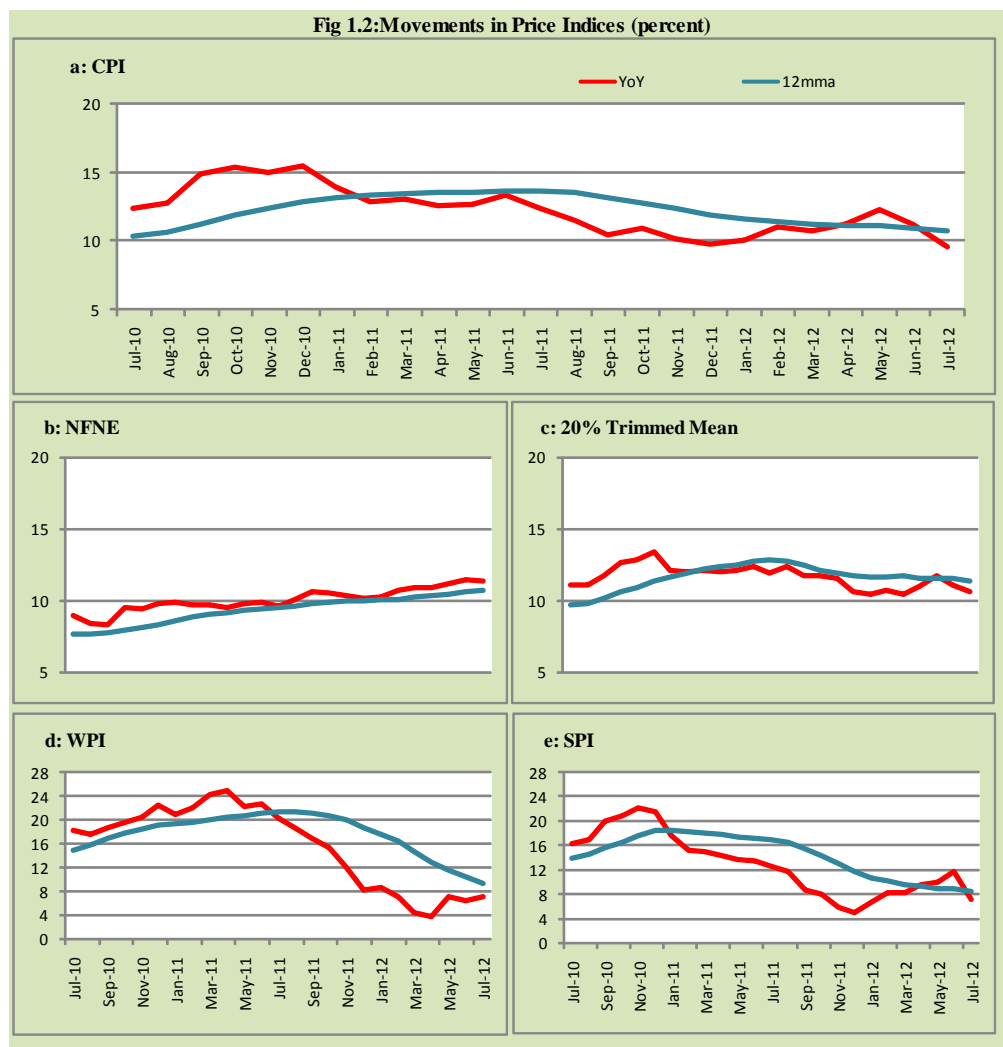
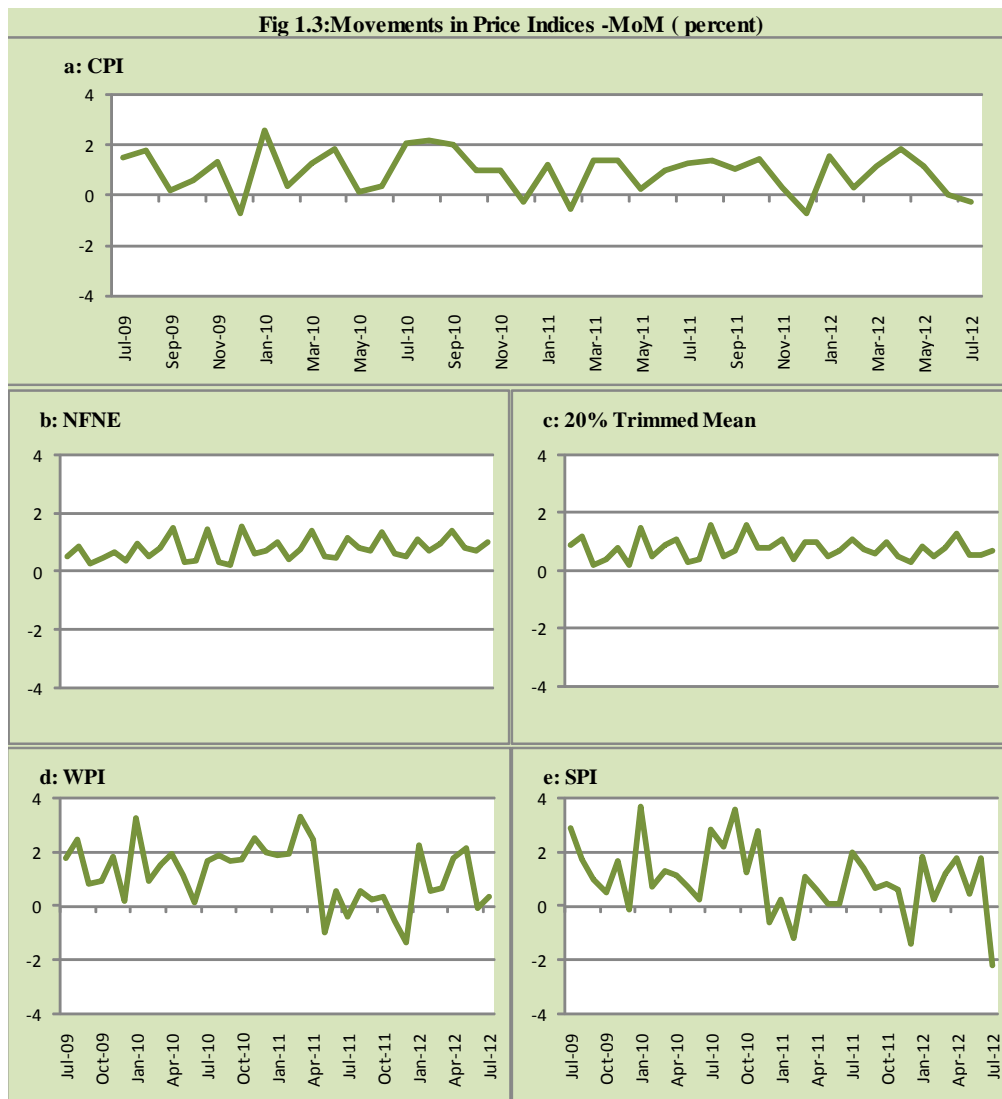
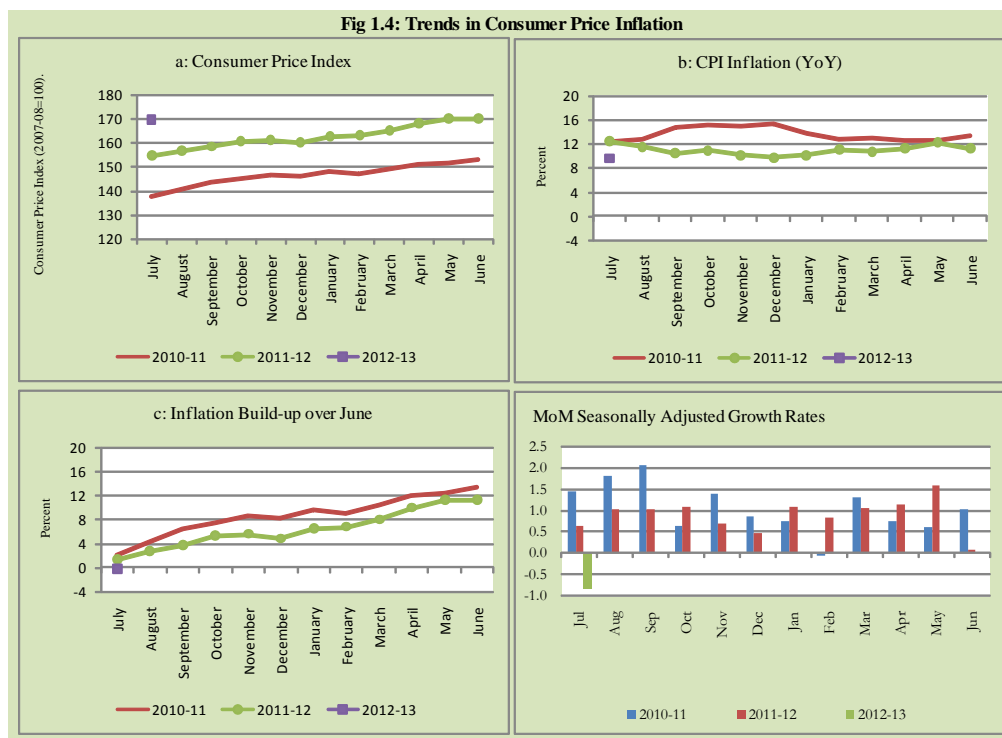


Fig 1.3: Movements in Price Indices -MoM (percent)





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 July 2012. Among these five cities, the lowest inflation was observed in Peshawar which is 6.7 percent while the highest inflation was observed in Quetta which is 9.5 percent (Table A6 of annexure-A).

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

	Jul-11		Jun-12		Jul-12	
	MoM	YoY	MoM	YoY	MoM	YoY
Overall CPI	1.3	12.4	0.0	11.3	-0.2	9.6
Islamabad	1.8	13.2	-0.3	10.8	-0.2	8.6
Karachi	1.8	11.0	0.6	11.4	-1.6	7.8
Lahore	2.0	9.6	1.2	10.8	0.4	9.0
Peshawar	1.9	12.5	-1.3	9.6	-0.8	6.7
Quetta	1.4	13.7	0.8	11.8	-0.7	9.5

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 July 2012 for food group. The lowest income group (Up to Rs. 8, 000) has the lowest inflation in general and food groups during the month of July 2012 (Table A7 of annexure-A).

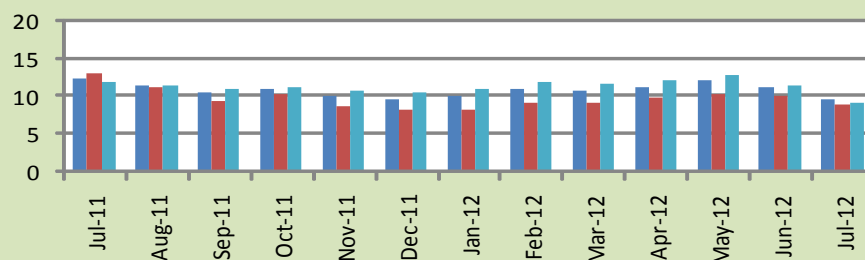
Table 3.1 Income Group- wise Inflation (YoY)

Income Groups	General			Food			Non-food		
	Jul-11	Jun-12	Jul-12	Jul-11	Jun-12	Jul-12	Jul-11	Jun-12	Jul-12
All Groups Combined	12.4	11.3	9.6	17.1	10.3	9.1	9.3	12.0	10.0
Up to Rs. 8,000	13.2	10.1	8.9	16.0	8.8	7.4	9.6	11.9	11.0
Rs. 8,001- 12,000	13.1	11.4	10.2	16.4	9.3	8.0	9.6	13.7	12.8
Rs. 12,001- 18,000	13.1	11.1	10.1	16.6	9.8	8.6	9.6	12.3	11.7
Rs. 18,001- 35,000	12.5	11.5	9.0	16.9	10.3	9.1	8.9	12.5	8.8
Above Rs. 35,000	11.9	11.4	9.2	17.7	11.0	10.0	9.1	11.6	8.7

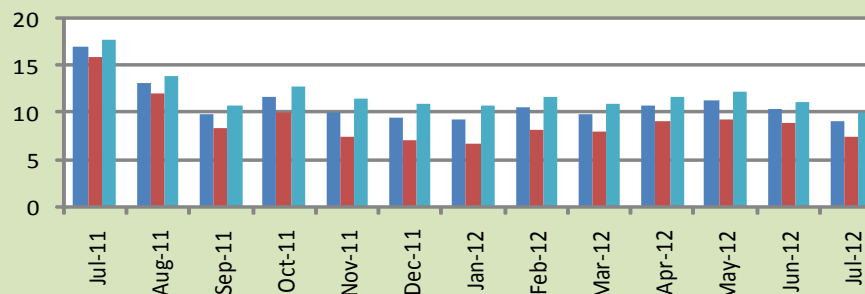
Fig 3.1: Income Group- wise Inflation

a: CPI Overall Inflation (YoY)

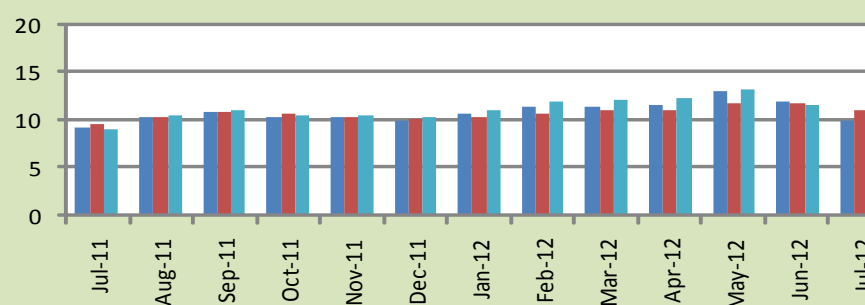
■ All Groups combined ■ Upto Rs. 8,000 ■ Above Rs. 35,000



b: CPI Food Inflation (YoY)



c: CPI Non-Food Inflation (YoY)



4. Weighted Contribution

The weighted contribution of food group in the overall inflation increased to 40.17 percent during July 2012 from 38.05 percent in June 2012 and it was 55.81 percent in July 2011.

The weighted contribution of non-food group showed decrease to touch 59.83 percent in July 2012 from 61.95 percent in June 2012.

Table 4.1 Weighted Contribution to CPI Inflation (YoY)

Period	Food	Clothing & Footwear	Housing, Water, Elect, Gas & Other Fuel	Transport	Education	Others
Jul-11	55.81	7.49	15.60	7.29	3.41	10.39
Aug-11	47.56	8.12	18.86	9.01	4.24	12.21
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

5. Inflation Diffusion Index

Table 5.1 Inflation Diffusion Index - based on MoM change													
	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12
General	51.3	53.4	56.1	52.2	47.3	37.7	51.5	51.0	57.6	53.1	55.6	27.0	41.4
Food & Non-Alcoholic Beverages	63.2	51.7	57.8	60.9	15.3	9.4	34.2	41.6	40.2	37.6	43.4	-23.4	25.4
Alcoholic Beverages & Tobacco	66.7	83.3	33.3	33.3	50.0	16.7	16.7	-16.7	33.3	66.7	50.0	33.3	100.0
Clothing & Footwear	49.2	62.7	54.2	47.5	76.3	69.5	59.3	49.2	74.6	62.7	76.3	44.1	62.7
Housing, Water, Elect, Gas & other Fuels	58.3	33.3	25.0	61.1	41.7	27.8	69.4	36.1	36.1	58.3	38.9	33.3	33.3
Furnishing & Household Equip. Maintenance etc	81.2	78.3	87.0	89.9	89.9	88.4	87.0	82.6	85.5	92.8	87.0	78.3	68.1
Health	43.6	35.9	23.1	25.6	33.3	28.2	33.3	41.0	38.5	25.6	30.8	41.0	33.3
Transport	39.5	41.9	53.5	48.8	32.6	41.9	53.5	55.8	79.1	48.8	44.2	20.9	39.5
Communication	0.0	50.0	8.3	25.0	25.0	0.0	8.3	33.3	16.7	41.7	8.3	50.0	-25.0
Recreation & Culture	28.2	41.0	51.3	7.7	25.6	12.8	38.5	28.2	46.2	35.9	74.4	17.9	17.9
Education	31.3	43.8	37.5	31.3	62.5	-43.8	25.0	50.0	56.3	50.0	31.3	0.0	25.0
Restaurant & Hotels	100.0	83.3	100.0	66.7	100.0	83.3	83.3	100.0	83.3	100.0	100.0	66.7	100.0
Miscellaneous	14.3	57.1	91.4	51.4	77.1	68.6	65.7	77.1	74.3	51.4	54.3	48.6	60.0
NFNE	48.2	53.8	55.6	49.7	59.8	47.3	58.3	54.7	63.9	57.4	57.7	44.7	47.0

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	Jul-11		Jun-12		Jul-12	
			YoY	MoM	YoY	MoM	YoY	MoM
1	Wheat	10 Kg	4.98	2.52	8.95	-0.04	6.49	0.21
2	Wheat Flour Bag	10 Kg	7.43	2.42	7.80	0.17	4.84	-0.40
3	Rice Basmati Sup. Qlty.	Kg	13.42	1.87	18.17	-0.42	18.65	2.28
4	Pulse Masoor (Washed)	Kg	-7.50	-0.68	-7.79	-0.62	-8.18	-1.10
5	Pulse Moong (Washed)	Kg	24.47	0.61	-13.22	-2.64	-14.15	-0.47
6	Pulse Mash (Washed)	Kg	-5.65	-0.57	-11.41	-3.29	-12.19	-1.45
7	Pulse Gram	Kg	18.30	3.89	55.75	-0.87	49.95	0.03
8	Vegetable Ghee (Loose)	Kg	40.77	-0.52	4.92	-0.88	4.25	-1.16
9	Sugar Refined	Kg	5.95	2.24	-19.55	0.80	-21.90	-0.74
10	Milk Fresh (Unboiled)	Ltr	20.57	1.01	13.22	2.47	12.80	0.64
11	Tea- Tapal Danedar	200 Gm	15.92	0.03	5.87	5.87	-1.76	-7.19
12	Beef With Bone Av. Qlty.	Kg	18.54	0.53	13.83	0.25	13.24	0.02
13	Mutton Av. Qlty.	Kg	23.35	1.13	14.69	0.56	13.40	0.00
14	Chicken Farm Broiler (Live)	Kg	16.21	14.36	16.85	-9.70	14.59	12.15
15	Eggs Farm	Doz	25.29	9.53	6.42	-12.76	0.11	3.04
16	Potatoes	Kg	17.99	10.56	-12.06	4.39	-11.03	11.85
17	Onion	Kg	-25.12	9.45	36.72	-5.57	50.94	20.82
18	Tomatoes	Kg	11.51	56.72	-8.53	-2.83	-31.94	16.60
19	Ginger	Kg	-15.66	-2.72	-30.49	2.54	-26.29	3.16
20	Garlic	Kg	-14.09	-6.50	-45.97	-9.84	-37.01	9.01

7. Global Commodity Prices

Table 7.1 Changes in Major Global Indices (percent)

Item/ Group	Jul-11		Jun-12		Jul-12	
	YoY	MoM	YoY	MoM	YoY	MoM
Overall	40.8	1.6	-13.2	-8.3	-10.6	4.5
Food	25.3	-0.7	-7.0	-0.5	2.4	9.3
Metals	55.9	2.8	-21.2	-4.0	-24.4	-1.4
Energy	43.3	2.2	-12.2	-11.4	-10.1	4.7
Agricultural	38.8	-1.1	-17.9	-3.3	-16.6	0.6
Cotton	77.4	-7.1	-48.8	-7.2	-43.7	2.2

Source: IMF

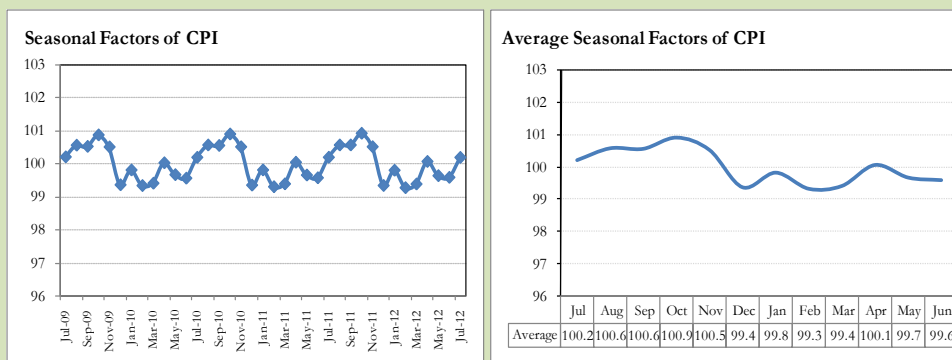
8. Seasonal Adjustment in CPI

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

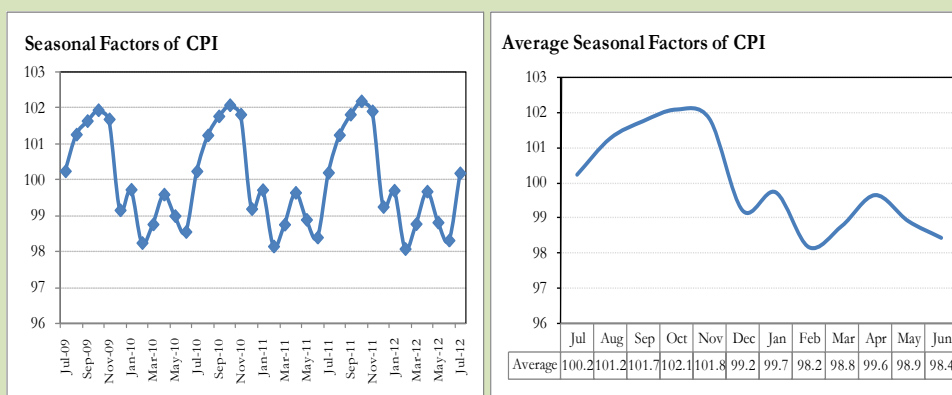
Figure 8.1 reveals that seasonality in CPI has been increasing over the period of last four years. Average seasonal factors reveal strong seasonality during the calendar year. There is an upward seasonality during the months July to November and downward seasonality in the remaining months of the year.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

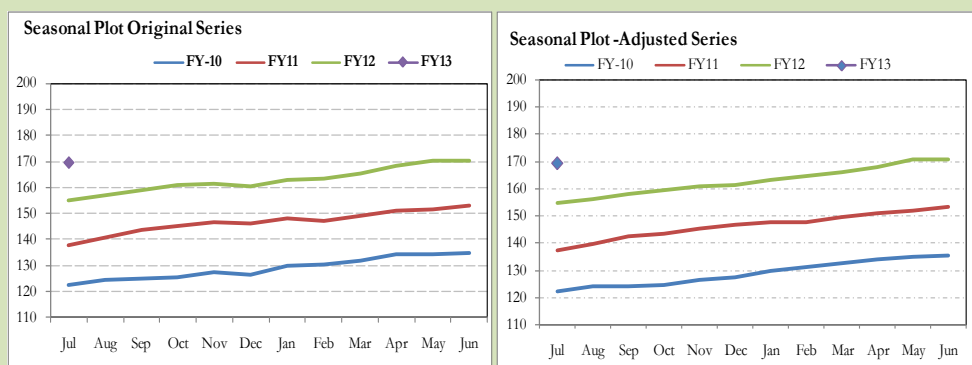
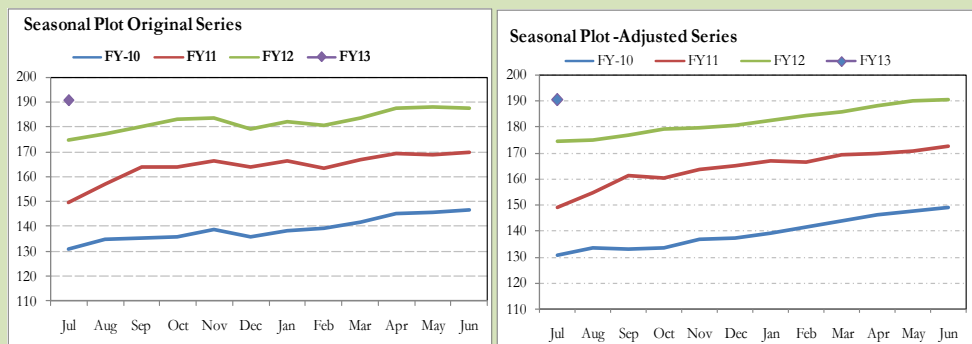


Fig. 8.4 Seasonal Plots of CPI (Food)



Seasonally adjusted CPI for July 2012 stood at 169.23 against 169.57 in original series showing a decrease of 0.34 on account of adjustment of upward seasonality in July 2012.

Seasonally adjusted CPI food group for July 2012 stood at 190.37 against 190.72 in original series showing a decrease of 0.35 on account of adjustment of upward seasonality in July 2012.

Month-on-month change of seasonally adjusted CPI series stood at -0.84% reflecting decrease during July 2012 over June 2012 and decrease of 0.25% in original series.

Month-on-month change of seasonally adjusted CPI food group series stood at -0.10% reflecting decrease during July 2012 over June 2012 and an increase of 1.80% 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 July 2012 (corresponding to the seasonally adjusted month-on-month rate) is -9.66 percent.

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

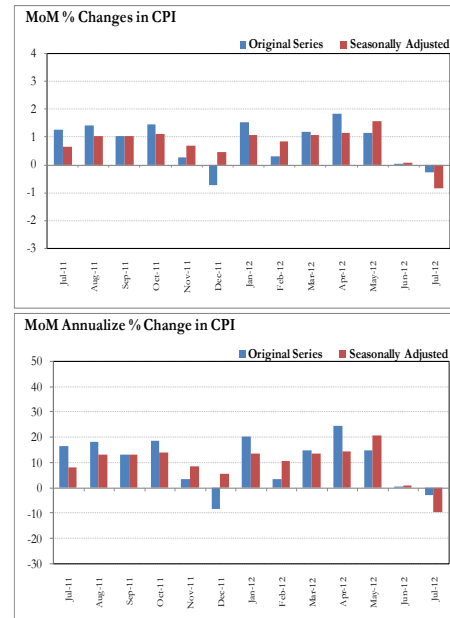
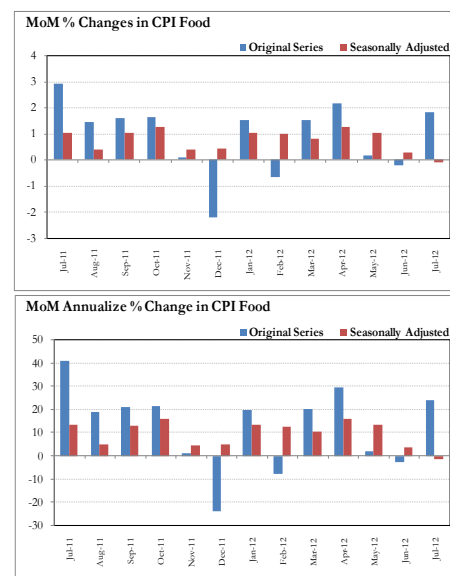


Fig. 8.6 Month-on-Month Percent Changes in CPI Food



Annexure A

Table A1: CPI Inflation by Groups (percent)							
	Weights	MoM change			YoY change		
		Jul-11	Jun-12	Jul-12	Jul-11	Jun-12	Jul-12
I. Food Group	37.5	2.9	-0.2	1.8	17.1	10.3	9.1
Food & Non-Alcoholic Beverages	34.8	3.0	-0.7	1.9	17.4	9.9	8.7
Alcoholic Beverages & Tobacco	1.4	1.2	11.1	0.7	7.0	18.7	18.1
Restaurant & Hotels	1.2	1.3	0.7	0.6	19.0	11.1	10.3
II. Non-Food Group	62.5	0.1	0.2	-1.7	9.3	12.0	10.0
Clothing & Footwear	7.6	0.6	0.5	1.0	13.4	15.4	15.8
Housing, Water, Elect, Gas & other	29.4	1.2	0.1	-3.5	6.9	10.7	5.6
Furnishing & Household Equip.	4.2	2.2	1.0	0.5	11.8	22.3	20.2
Health	2.2	0.5	2.3	1.6	9.3	14.3	15.6
Transport	7.2	-5.6	-1.6	-2.4	12.3	8.8	12.6
Communication	3.2	-0.2	1.0	0.0	2.1	-0.1	0.1
Recreation & Culture	2.0	0.3	0.3	0.2	5.5	18.7	18.6
Education	3.9	1.7	0.6	0.3	11.9	11.5	9.9
Miscellaneous	2.8	0.0	1.3	0.1	17.0	15.1	15.2
Headline	100.0	1.3	0.0	-0.2	12.4	11.3	9.6

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)	
		Jul-11	Jul-12	Jul-11	Jul-12	Jul-11	Jul-12	Jul-11	Jul-12	Jul-11	Jul-12
I. Food Group	9.1	127	127	9	24	8	17	14	26	96	60
Food & Non-Alcoholic Beverages	8.7	115	115	9	24	7	17	11	21	88	53
Alcoholic Beverages & Tobacco	18.1	6	6	0	0	1	0	3	2	2	4
Restaurant & Hotels	10.3	6	6	0	0	0	0	0	3	6	3
II. Non-Food Group	10.0	348	348	51	34	46	40	80	60	171	214
Clothing & Footwear	15.8	59	59	8	2	1	2	9	4	41	51
Housing, Water, Elect, Gas & other Fuels	5.6	36	36	6	3	3	1	12	16	15	16
Furnishing & Household Equip. Maintenance etc	20.2	69	69	3	1	4	4	20	10	42	54
Health	15.6	39	39	12	12	10	8	5	3	12	16
Transport	12.6	43	43	1	0	5	6	12	7	25	30
Communication	0.1	12	12	5	5	4	3	2	1	1	3
Recreation & Culture	18.6	39	39	11	6	14	9	8	9	6	15
Education	9.9	16	16	2	4	2	3	3	1	9	8
Miscellaneous	15.2	35	35	3	1	3	4	9	9	20	21
Overall	9.6	475	475	60	58	54	57	94	86	267	274

Note: Prices of 12 seasonal items were not reported during the month.

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

Ranking Top Ten Contributors to CPI Inflation (2011 to July 2012)					
Items/ Contributors		Weights	YoY Change		Weighted Contribution
			Jul-11	Jul-12	
A. Ranked by Weighted Contribution					
1	House Rent	21.81	7.63	6.52	12.33
2	Milk Fresh	6.68	20.59	12.91	10.84
3	Electricity	4.40	5.23	16.39	8.19
4	Fresh Fruits	1.86	37.14	28.01	6.71
5	Transport Services	2.70	7.81	15.57	4.91
6	Meat	2.43	20.09	13.30	4.13
7	Education	3.94	11.91	9.93	3.66
8	Household Servant	1.04	11.09	35.04	3.30
9	Cigarette	1.39	6.81	18.20	2.73
10	Motor Fuel	3.03	18.58	8.36	2.58
Total		49.30			59.39
B. Ranked by Percentage Change					
1	Onion	0.53	-25.12	50.93	1.87
2	Pulse Gram	0.24	18.30	49.95	1.28
3	Besan	0.15	19.89	42.97	0.71
4	Text Books	0.57	4.15	40.60	2.55
5	Household Servant	1.04	11.09	35.04	3.30
6	Gram Whole	0.16	24.90	31.52	0.60
7	Motor Vehicle Tax	0.11	18.09	28.73	0.25
8	Fresh Fruits	1.86	37.14	28.01	6.71
9	Doctor (MBBS) Clinic Fee	0.59	15.41	25.53	1.50
10	Utensils	0.32	10.58	23.85	0.72
Total		5.58			19.49
C. Ranked by Weights					
1	House Rent	21.81	7.63	6.52	12.33
2	Milk Fresh	6.68	20.59	12.91	10.84
3	Electricity	4.40	5.23	16.39	8.19
4	Wheat Flour	4.16	5.36	4.13	1.85
5	Education	3.94	11.91	9.93	3.66
6	Communication & Apparatus	3.15	2.04	-0.07	-0.02
7	Motor Fuel	3.03	18.58	8.36	2.58
8	Transport Services	2.70	7.81	15.57	4.91
9	Meat	2.43	20.09	13.30	4.13
10	Vegetable Ghee	2.07	36.62	5.58	1.21
Total		54.39			49.68
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 9.6 percent in July, 2012.					

Table A3.1: Top Ten Contributors to CPI Food Inflation (YoY) in July 2012					
Items/ Contributors		Weights	YoY Change		Weighted Contribution
			Jul-11	Jul-12	
A. Ranked by Weighted Contribution					
1	Milk Fresh	6.68	20.59	12.91	10.84
2	Fresh Fruits	1.86	37.14	28.01	6.71
3	Meat	2.43	20.09	13.30	4.13
4	Cigarette	1.39	6.81	18.20	2.73
5	Chicken	1.36	16.22	14.59	2.39
6	Cooking Oil	1.75	30.07	13.54	2.31
7	Rice	1.58	21.84	14.53	2.26
8	Onion	0.53	-25.12	50.93	1.87
9	Wheat Flour	4.16	5.36	4.13	1.85
10	Ready Made Food	1.23	19.04	10.31	1.52
Total		22.99			36.60
B. Ranked by Percentage Change					
1	Onion	0.53	-25.12	50.93	1.87
2	Pulse Gram	0.24	18.30	49.95	1.28
3	Besan	0.15	19.89	42.97	0.71
4	Gram Whole	0.16	24.90	31.52	0.60
5	Fresh Fruits	1.86	37.14	28.01	6.71
6	Condiments	0.27	15.39	20.47	0.64
7	Beans	0.03	14.31	20.26	0.06
8	Honey	0.04	21.73	20.12	0.12
9	Cigarette	1.39	6.81	18.20	2.73
10	Milk Powder	0.11	13.99	17.67	0.21
Total		4.79			14.93
C. Ranked by Weights					
1	Milk Fresh	6.68	20.59	12.91	10.84
2	Wheat Flour	4.16	5.36	4.13	1.85
3	Meat	2.43	20.09	13.30	4.13
4	Vegetable Ghee	2.07	36.62	5.58	1.21
5	Fresh Fruits	1.86	37.14	28.01	6.71
6	Cooking Oil	1.75	30.07	13.54	2.31
7	Fresh Vegetable	1.68	8.23	-4.14	-0.86
8	Rice	1.58	21.84	14.53	2.26
9	Cigarette	1.39	6.81	18.20	2.73
10	Chicken	1.36	16.22	14.59	2.39
Total		24.98			33.56
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 9.1 percent in July, 2012.					

Table A3.2: Top Ten Contributors to CPI Non-food Inflation (YoY) in July 2012					
Items/ Contributors		Weights	YoY Change		Weighted Contribution
			Jul-11	Jul-12	
A. Ranked by Weighted Contribution					
1	House Rent	21.81	7.63	6.52	12.33
2	Electricity	4.40	5.23	16.39	8.19
3	Transport Services	2.70	7.81	15.57	4.91
4	Education	3.94	11.91	9.93	3.66
5	Household Servant	1.04	11.09	35.04	3.30
6	Motor Fuel	3.03	18.58	8.36	2.58
7	Text Books	0.57	4.15	40.60	2.55
8	Personal Care	1.49	14.26	15.45	2.35
9	Footwear	1.55	1.61	16.08	2.06
10	Personal Equipments	0.84	23.62	15.75	1.85
Total		41.39			43.79
B. Ranked by Percentage Change					
1	Text Books	0.57	4.15	40.60	2.55
2	Household Servant	1.04	11.09	35.04	3.30
3	Motor Vehicle Tax	0.11	18.09	28.73	0.25
4	Doctor (MBBS) Clinic Fee	0.59	15.41	25.53	1.50
5	Utensils	0.32	10.58	23.85	0.72
6	Fire Wood Whole	0.23	25.49	23.81	0.66
7	Marriage Hall Charges	0.08	17.54	20.50	0.17
8	Dopatta	0.44	21.67	20.39	0.90
9	Woolen Cloth	0.88	19.50	19.52	1.78
10	Mechanical Service	0.46	10.98	19.42	0.89
Total		4.71			12.73
C. Ranked by Weights					
1	House Rent	21.81	7.63	6.52	12.33
2	Electricity	4.40	5.23	16.39	8.19
3	Education	3.94	11.91	9.93	3.66
4	Communication & Apparatus	3.15	2.04	-0.07	-0.02
5	Motor Fuel	3.03	18.58	8.36	2.58
6	Transport Services	2.70	7.81	15.57	4.91
7	Cotton Cloth	1.73	16.85	9.79	1.61
8	Gas	1.58	0.00	-34.25	-7.42
9	Footwear	1.55	1.61	16.08	2.06
10	Personal Care	1.49	14.26	15.45	2.35
Total		45.39			30.25
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 10.0 percent in July, 2012.					

Table A4: Distribution of Price Changes (YoY) - Selected CPI Items: July 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, Tomatoes, Ginger, Sugar Refined, Cardamom Small Av.Qlty, Gur Av.Qlty, Pulse Masoor (Whole)	Wheat Flour Bag, Squash-Mitchelles, Custard Powder Rafhan 300, Wheat Flour Fine/Superior, Vegetable Ghee (Loose)	Almonds Whole Av.Qlty., Vermicelli, Rice Irri-6/9 (Sindh/Punj, Samosa (Vegetable), Rusk (Papay), Cooking Oil (Dalda)	Bananas, Cloves Loose Av.Qlty, Onion, Pulse Gram, Chillies Powd.National 200 Gm, Pepper Black National, Gram Whole Black Av Qlty., Besan Av. Qlty., Muskmelon (Kharbooza), Cucumber (Kheera), Ice
Alcoholic Beverages & Tobacco			Betel Leaves, Cigarettes Gold Leaf 20,S	Cigarettes K-20,S, Cigarettes Capstan 20,S, Betel Nuts, Cigarettes Morven Gold 20,S
Clothing & Footwear	Sports Shoes, Gents Shoe, Art 1109 Servis	Long Cloth 57" Gul Ahmed/Al Karam, Child Shoe Power Lite Bata	Azarband Cotton Avg.Qlty, Tailoring Coat-Pant Suit, Handkerchief Sup. Qlty Pak, Shoe Repair Half Sole	Gents Spoung Chappal Bata, Ladies Spoung Chappal Bata, Ladies Sandal Bata, Brassier Sup.Qlty, Awami-Suit W&W (Gents)Av.Qlty, Pullover Ladies Oxford/Bon, Dopatta Georgetown Av.Qlty, Heavy Wt Suiting Law.Pur Sup. Qlty, Foot Wear Local (Children), Tailoring Shirt
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")	Bajree, Kerosene Oil, Water Charges Per House, Timber Shesham Log, Elect. Charges Upto 50 Units, Iron Bar (M.S. Bar) 1/2", House Rent For Q-I	Elect. Charges 01 - 100 Units, Firewood Whole, Elect. Charges 101 - 300 Units, Synthetic Enemal Robialac, Synthetic Enemal ICI, Elect. Charges Overall/ Combined, Unskilled Labour Wage Rat, Electrician Wage Rate
Furnishing & Household Equip. Maintenance etc	Match Box (Small)	Split Air Conditioner 1.5 Ton, Bulb Philips 100-Watt, Surf Excel 400 Gms Poly Bag, Washing Machine (Singer)	Harpic, S. Steel Plate Avg. Qlty, D-Freezer Waves 8 Cft., Aluminum Cooking Pan, Electric Juicer, Sewing Machine (Singer)	Dinner Set Plastic 72 Pcs, Robin Blue (35 Gms), Household Servant Female (Part Time), Elect. Iron Philips, Table Shesham Wood, Lota Plastic (Med Size) Avg. Qlty, Dari Cotton (6X2 1/2"), Tawa Iron (Medium Size) Avg. Qlty
Health	Amoxil Capsule 250 Mg., Septran Tablets, Sancos Syrup (50 Ml.), Calpol Syrup 60 Ml., Burnol Cream 30 Gm	Dettol (Medium), Ventolin Tab. 2Mg., Betnesol Eye Drops, Daonil Tab. 5 Mg., Jouhar Joshanda, Lederplex Syrup, Renitec Tab. 5 Mg.	Thermometer China, Vicks Vaporub/ Balm, Ear Drops (Cardisorpine)	Cac. 1000 Tab, Disprin Tab., Panadol Tab. Extra/Plain, Doctor (MBBS) Clinic Fee, Trisil Tab., Gripe-Water Woodward's, Blood Test (Cp) Charges, Saniplast (1 Putty), Brufen Tabs 200-Mg., Glycerin Small Bottle
Transport		High Speed Diesel HSD, Bus Fare Outside City (Non A/C), Motorcycle Honda Cd-70, Gas Cylinder S. Size (L.P.G), Motor Cycle Hero 70 Cc	Suzuki Fare Maximum Within City, Car Suzuki 1000 Cc, Suzuki Fare Min.Within City, Bicycle With Tyres & Tube, Air Fare Economy Class.	Platform Ticket, Taxi 4 Seater Fare, Cycle Overhauling Charges, Car Tax For 800 Cc To 1300 Cc, CNG, Full Tonga Charges, Bus Fare Min (Within City), Tyre Puncture Charges, Tyre Car W/O Tube, Train Fare 1st Slp.101-50
Communication	Mobile Set Nokia/Sony/Ericsson Av.Qlty, Telephone Charges Local Call	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, Daily "Dawn", TV License Fee Domestic, Daily "Nawa-E-Waqt", Daily "Jang", Monthly "Naunehal Digest"	Radio With C.Player National, V.C.P. Panasonic/Lg/National, Computer Cd (Tdk/Imation), Tape Recorder Cassette (Blank), Urdu Book BA/B.Sc, T.V 20" Color China/Korea	Pencil Goldfish/Deer, Photostat Paper 70 Gm, Eng. Book Ist.Yr Complete Set, Pen Ink Dollor 57 Ml Bottle, Pakistan Studies Book BA/B.Sc, Cable Charges	English Book Class VI, 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), Urdu Book 1st Year/ Inter, Paper Fool Scape (27"X17")
Education	MBA Tuition Fee, Govt. College Fee 4Th. Year, Pvt Eng.College Fee (1st Year), Govt. College Fee 1st Yr	I.T. Tuition Fees, Pvt Med. College Fee MBBS(1st Year), Govt. University Fee MSc/ MA	Govt. Med. College Fee MBBS 1st Year	Govt. Engg. Coll. Fee 1st Year, Coaching Charges For Class XI/ XII Science Group, Pvt School Fee Eng. Med (Class-X), Pvt School Fee Eng. Med (Class-VI)
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 Ct	Disposable Razor Gillette-II, Toilet Soap Lux 95 Gms, Hair Color Bigen, Lipstick S.Miss/Medora	Perfume Med. Size Medora/Broche, Trunk Medium Size, Wrist Watch Gents Citizen	Toothpaste Med Size Colgate 70Gms, Wall Clock Quartz Av.Qlty, Face Cream Ponds (Medium), Artificial Jewellery Set, Nail Polish S.Miss/Medora, Gel Medium Size

Table A5: City- wise CPI Inflation by Income Groups, July 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	1.5	9.7	3.3	8.5	-0.8	11.3	1.3	10.0	3.6	8.8	-1.2	11.5
2 Islamabad	1.0	9.7	2.5	8.2	-0.9	11.8	0.6	8.8	2.7	8.2	-1.7	9.5
3 Lahore	1.2	8.7	2.2	8.5	-0.2	9.2	1.0	9.0	2.3	9.1	-0.6	8.8
4 Gujranwala	0.7	8.8	1.5	9.6	-0.5	7.7	0.4	9.3	1.6	10.6	-0.9	7.7
5 Sialkot	1.1	8.9	2.1	10.7	-0.3	6.5	0.5	9.4	1.8	11.4	-1.0	6.9
6 Faisalabad	1.3	7.8	2.8	7.6	-0.6	8.1	0.9	8.1	2.8	8.3	-1.2	7.8
7 Multan	1.3	8.9	2.5	6.9	0.0	11.6	1.2	9.3	2.8	7.8	-0.6	11.1
8 Sargodha	0.7	8.4	1.4	4.9	-0.1	12.6	0.3	8.8	1.3	5.3	-0.7	12.4
9 Bahawalpur	0.0	10.5	-0.9	6.2	1.0	15.8	0.1	11.1	-0.3	7.1	0.5	15.4
10 Karachi	-0.6	7.4	-0.8	6.4	-0.3	8.6	-0.9	7.5	-0.9	6.9	-0.9	8.2
11 Hyderabad	-0.3	5.9	0.3	2.9	-1.1	10.2	-0.5	6.4	0.5	3.4	-1.6	10.3
12 Sukkur	1.9	8.0	3.2	5.7	0.4	10.9	1.8	8.6	3.6	6.8	-0.1	10.7
13 Larkana	1.0	12.6	0.0	7.3	2.2	19.8	1.2	13.9	0.5	8.6	1.9	20.0
14 Peshawar	0.1	6.6	0.6	3.6	-0.6	10.2	-0.1	6.8	0.9	4.2	-1.1	9.6
15 Bannu	0.3	9.8	0.3	4.9	0.3	16.0	0.3	9.9	0.4	5.9	0.2	14.5
16 Quetta	0.7	10.4	1.0	8.0	0.4	13.8	0.2	10.4	1.0	8.0	-0.6	13.3
17 Khuzdar	0.2	6.1	-0.1	3.4	0.6	9.6	0.1	6.5	-0.1	3.8	0.3	9.4
	Rs 12001-18000						Rs 18001-35000					
	General		Food		Non-Food		General		Food		Non-Food	
	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY
1 Rawalpindi	0.9	9.1	3.7	8.7	-1.8	9.6	0.7	9.6	4.0	8.9	-1.9	10.1
2 Islamabad	0.6	8.1	3.0	8.6	-1.9	7.6	0.3	8.0	3.2	8.7	-2.2	7.3
3 Lahore	0.6	8.4	2.3	9.8	-1.2	6.8	0.3	8.9	2.3	10.4	-1.6	7.5
4 Gujranwala	0.1	9.0	1.8	11.8	-1.6	6.3	-0.1	9.9	2.0	13.0	-1.9	7.3
5 Sialkot	0.3	9.0	2.1	12.0	-1.5	5.9	-0.2	9.3	1.8	12.7	-1.9	6.4
6 Faisalabad	0.5	7.4	2.8	9.0	-1.8	5.7	0.1	8.0	2.8	10.0	-2.3	6.2
7 Multan	0.9	8.5	2.9	8.2	-1.1	8.9	0.9	9.3	3.5	9.0	-1.3	9.6
8 Sargodha	-0.2	8.8	1.0	6.0	-1.2	11.4	-0.3	9.8	1.1	6.7	-1.3	12.3
9 Bahawalpur	-0.2	10.4	-0.3	7.0	-0.1	13.7	-0.3	11.9	-0.2	7.0	-0.4	15.9
10 Karachi	-1.4	6.9	-1.0	7.2	-1.7	6.5	-1.6	7.4	-1.1	7.4	-1.9	7.4
11 Hyderabad	-0.7	5.8	0.9	3.8	-2.3	7.9	-0.9	6.5	1.1	4.3	-2.6	8.6
12 Sukkur	1.4	7.9	3.6	7.2	-0.7	8.5	1.5	8.8	4.2	7.9	-0.7	9.6
13 Larkana	0.9	14.1	0.5	9.8	1.3	18.7	1.0	15.3	0.9	11.3	1.1	18.9
14 Peshawar	-0.7	5.8	0.8	4.2	-2.0	7.4	-0.7	6.6	1.1	4.7	-2.2	8.2
15 Bannu	0.4	9.3	0.6	6.3	0.2	12.3	0.5	9.7	0.9	7.0	0.3	12.1
16 Quetta	-0.6	9.4	1.0	8.1	-2.3	10.8	-0.7	9.6	1.2	8.2	-2.3	10.9
17 Khuzdar	0.2	6.4	0.1	4.1	0.4	8.7	0.3	7.0	0.1	4.3	0.4	9.3
	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	-0.1	10.0	3.9	9.3	-1.9	10.4	0.3	9.9	3.9	9.1	-2.0	10.4
2 Islamabad	-0.5	8.6	3.3	9.1	-2.5	8.2	-0.2	8.6	3.3	9.0	-2.9	8.4
3 Lahore	0.2	9.3	2.6	11.8	-1.1	8.0	0.4	9.0	2.4	10.7	-1.3	7.6
4 Gujranwala	-0.6	10.2	1.8	14.6	-1.8	8.1	-0.2	9.5	1.8	12.5	-1.7	7.4
5 Sialkot	-0.8	8.7	1.7	13.3	-2.0	6.5	-0.3	8.9	1.9	12.6	-1.8	6.3
6 Faisalabad	-0.6	8.9	2.7	11.2	-2.2	7.6	0.0	8.0	2.8	9.5	-2.0	6.9
7 Multan	0.4	9.5	4.1	10.4	-1.4	9.1	0.6	9.1	3.4	9.0	-1.3	9.2
8 Sargodha	-1.2	10.9	0.5	7.6	-2.0	12.6	-0.5	9.4	1.0	6.3	-1.4	11.5
9 Bahawalpur	-0.1	12.4	0.3	7.4	-0.3	14.8	-0.2	11.3	-0.2	7.0	-0.3	14.4
10 Karachi	-1.8	8.1	-1.1	7.7	-2.2	8.3	-1.6	7.8	-1.1	7.4	-2.0	8.0
11 Hyderabad	-0.9	7.1	1.7	5.0	-2.3	8.2	-0.9	6.4	1.1	4.1	-2.4	8.0
12 Sukkur	1.3	9.3	5.0	8.9	-0.4	9.5	1.3	8.5	4.0	7.5	-0.5	9.1
13 Larkana	0.7	15.3	0.9	12.1	0.6	16.9	0.8	14.0	0.6	9.8	0.9	17.2
14 Peshawar	-1.1	7.2	1.7	5.4	-2.3	8.0	-0.8	6.7	1.2	4.7	-2.2	8.0
15 Bannu	0.1	9.7	0.7	8.9	-0.2	10.1	0.3	9.7	0.6	6.5	0.2	11.9
16 Quetta	-0.9	9.5	1.4	8.2	-2.0	10.1	-0.7	9.5	1.2	8.1	-2.1	10.5
17 Khuzdar	0.6	8.7	1.1	5.3	0.4	10.4	0.2	6.7	0.1	3.9	0.3	8.6

Table A6: City- wise CPI Inflation (YoY) July, 2012							
	High inflation cities				Low inflation cities		
	General	Food	Non-food		General	Food	Non-food
Larkana	14.0	9.8	17.2	Gujranwala	9.5	12.5	7.4
Sahiwal	13.1	11.6	14.1	Abbotabad	9.5	10.7	8.8
Mianwali	12.6	10.5	14.2	D.G. Khan	9.5	11.9	7.9
Bahawalnagar	12.2	10.2	13.5	Quetta	9.5	8.1	10.5
Bahawalpur	11.3	7.0	14.4	Jehlum	9.5	11.6	8.0
Jhang	11.1	9.0	12.6	Sargodha	9.4	6.3	11.5
Mingora	11.0	9.8	11.9	Dadu	9.2	9.3	9.2
Mithi	10.7	6.1	13.8	Mir Pur Khas	9.2	7.1	10.7
Mardan	10.7	6.7	13.2	Multan	9.1	9.0	9.2
Gawadar	10.6	10.1	10.9	Lahore	9.0	10.7	7.6
Rahim Yar Khan	10.5	9.7	11.0	Sialkot	8.9	12.6	6.3
Muzaffargarh	10.4	10.8	10.2	Islamabad	8.6	9.0	8.4
Rawalpindi	9.9	9.1	10.4	Nawabshah	8.6	5.6	10.6
Loralai&Cantt	9.8	6.5	12.0	Dera Mrd.Jamali	8.5	7.7	9.1
Bannu	9.7	6.5	11.9	Sukkur	8.5	7.5	9.1
				Attock	8.2	7.6	8.5
				Faisalabad	8.0	9.5	6.9
				D.I.Khan	8.0	5.9	9.5
				Wazirabad	8.0	8.9	7.3
				Turbat	7.9	6.6	8.7
				Karachi	7.8	7.4	8.0
				Vehari	7.7	4.3	10.2
				Khuzdar	6.7	3.9	8.6
				Peshawar	6.7	4.7	8.0
				Hyderabad	6.4	4.1	8.0
Note: High inflation refers to equal or above average inflation, and low inflation refers to below average							

Table A7: Income Group-wise Inflation (percent)

	MoM			YoY		
	Jul-11	Jun-12	Jul-12	Jul-11	Jun-12	Jul-12
<u>Up to Rs. 8000</u>						
General	2.0	0.3	0.9	13.2	10.1	8.9
Food	2.8	0.2	1.5	16.0	8.8	7.4
Non-food	0.9	0.5	0.1	9.6	11.9	11.0
<u>Rs. 8001- 12000</u>						
General	1.9	0.2	0.9	13.1	11.4	10.2
Food	2.8	0.0	1.6	16.4	9.3	8.0
Non-food	0.8	0.4	0.0	9.6	13.7	12.8
<u>Rs. 12001- 18000</u>						
General	1.8	0.2	1.0	13.1	11.1	10.1
Food	2.9	-0.1	1.7	16.6	9.8	8.6
Non-food	0.8	0.4	0.2	9.6	12.3	11.7
<u>Rs. 18001- 35000</u>						
General	1.7	0.1	-0.6	12.5	11.5	9.0
Food	2.9	-0.1	1.8	16.9	10.3	9.1
Non-food	0.7	0.3	-2.6	8.9	12.5	8.8
<u>Above Rs. 35000</u>						
General	0.7	-0.1	-1.3	11.9	11.4	9.2
Food	2.9	-0.4	1.9	17.7	11.0	10.0
Non-food	-0.4	0.1	-2.9	9.1	11.6	8.7
<u>All income groups</u>						
General	1.3	0.0	-0.2	12.4	11.3	9.6
Food	2.9	-0.2	1.8	17.1	10.3	9.1
Non-food	0.1	0.2	-1.7	9.3	12.0	10.0

Table A8: SPI Item-wise Price Movements

Sr.No.	Items	Unit	Prices Jul-12	Percentage change	
				YoY	MoM
1	Wheat	10Kg.	271.1	6.6	0.4
2	Wheat Flour Bag	10Kg.	306.2	4.5	-0.9
3	Rice Basmati Broken	Kg.	65.8	14.8	0.6
4	Rice Irri-6	Kg.	48.3	10.5	0.2
5	Bread Plain Med. Size (340-400 Gm.)	Each	32.6	7.0	0.0
6	Beef	Kg.	263.4	12.7	0.1
7	Mutton	Kg.	505.7	12.1	0.2
8	Chicken Live (Farm)	Kg.	167.2	4.0	8.4
9	Milk Fresh	Litr	63.6	13.9	1.8
10	Curd	Kg.	74.6	14.4	1.3
11	Milk Powdered Nido	500G	287.4	25.0	4.2
12	Egg Hen (Farm)	Doz.	77.1	-2.5	7.4
13	Mustard Oil	Kg.	187.1	10.2	1.3
14	Cooking Oil (Tin)	2.5Ltr	549.1	10.9	1.5
15	Veg. Ghee (Tin)	2.5Kg.	539.1	8.9	1.0
16	Veg. Ghee Loose	Kg.	169.6	2.0	-0.7
17	Bananas	Doz.	101.5	76.3	-1.3
18	Masoor Pulse Washed	Kg.	100.0	-6.9	-0.6
19	Moong Pulse Washed	Kg.	121.1	-13.7	-0.8
20	Mash Pulse Washed	Kg.	137.3	-11.2	-1.3
21	Gram Pulse Washed	Kg.	108.6	50.1	-0.3
22	Potatoes	Kg.	29.4	-6.7	11.5
23	Onions	Kg.	27.3	49.7	26.7
24	Tomatoes	Kg.	31.1	-25.8	31.0
25	Sugar	Kg.	54.3	-23.9	-1.0
26	Gur	Kg.	73.0	-15.1	0.6
27	Salt Powdered Loose (Lahori)	Kg.	8.5	9.8	0.0
28	Red Chillies Powder Loose	Kg.	301.0	18.8	-0.8
29	Garlic	Kg.	103.7	-29.0	7.9
30	Tea (Yellow Label)	200Gm.	133.3	1.3	-5.4
31	Cooked Beef Plate	Each	65.2	13.8	0.3
32	Cooked Dal Plate	Each	39.2	9.2	0.1
33	Tea Prepared (Sada)	Cup	15.0	9.5	0.0
34	Cigarettes K-2 (20'S)	20'S	32.0	13.6	1.8
35	Long Cloth (Coarse Latha)	Mtr.	139.7	50.7	0.2
36	Shirting	Mtr.	114.7	14.1	0.4
37	Lawn	Mtr.	160.2	65.0	1.1
38	Georgette (Voil Printed)	Mtr.	95.8	18.0	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	5.3	-18.7
44	Kerosene	Litr	103.9	7.6	-5.1
45	Firewood	40Kg	474.0	19.9	-0.2
46	Energy Savor 14 Watts	Each	145.9	10.6	0.0
47	Washing Soap (200-250 Gm.)	Cake	19.9	15.0	0.9
48	Match Box	Each	1.1	5.8	0.0
49	Petrol	Litr	86.4	2.1	-9.8
50	Diesel	Litr	98.3	5.7	-5.2
51	L.P.G.(11 Kg Cylinder.)	Each	1231.5	-8.5	-4.9
52	Tele. Local Call	Call	3.6	0.0	0.0
53	Bath Soap Lifebuoy (Standard)	Cake	32.0	6.7	0.0
Maximum				76.3	31.0
Median				8.9	0.0
Minimum				-29.0	-18.7

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

Table A10: Consumer Price Index Numbers by Major Groups and Selected Commodities				
Items and specification	Weights	Index		
		Jul-11	Jun-12	Jul-12
General	100.00	154.72	169.99	169.57
Food & Non-Alcoholic Beverages.	34.83	175.28	187.05	190.58
1 Wheat	0.35	149.37	158.74	159.07
2 Wheat Flour	4.16	159.16	166.45	165.74
3 Wheat Product	0.10	157.76	162.86	162.45
4 Besan	0.15	163.59	231.58	233.88
5 Rice	1.58	145.88	166.43	167.07
6 Cereals	0.16	178.16	193.80	196.40
7 Bakery & Confectionary	1.16	156.19	169.62	170.02
8 Nimco	0.46	170.30	190.60	191.57
9 Meat	2.43	189.56	214.75	214.77
10 Chicken	1.36	179.00	182.90	205.11
11 Fish	0.30	162.97	187.13	186.25
12 Milk Fresh	6.68	186.70	209.46	210.80
13 Milk Product	0.63	181.88	204.19	205.90
14 Milk Powder	0.11	152.98	175.97	180.01
15 Egg	0.46	153.99	149.61	154.16
16 Mustard Oil	0.10	145.04	158.54	160.06
17 Cooking Oil	1.75	144.40	157.85	163.95
18 Vegetable Ghee	2.07	155.62	164.96	164.31
19 Dry Fruits	0.25	181.26	196.87	199.15
20 Fresh Fruits	1.86	190.73	232.20	244.15
21 Pulse Masoor	0.27	159.64	145.26	143.47
22 Pulse Moong	0.23	268.94	231.97	230.89
23 Pulse Mash (Washed)	0.21	221.55	197.41	194.55
24 Pulse Gram	0.24	160.75	240.97	241.04
25 Gram Whole	0.16	174.70	231.05	229.76
26 Beans	0.03	170.59	202.24	205.15
27 Potatoes	0.47	212.95	169.38	189.45
28 Onion	0.53	102.16	127.62	154.19
29 Tomatoes	0.44	136.41	79.62	92.84
30 Fresh Vegetable	1.68	184.27	158.70	176.65
31 Sugar	1.04	252.46	198.64	197.18
32 Gur	0.02	260.52	219.21	221.22
33 Honey	0.04	197.41	232.36	237.13
34 Sweet Meet	0.25	181.05	200.28	200.89
35 Beverages	1.20	156.10	168.70	168.43
36 Jam, Tomato Ketchup & Pickle	0.25	164.75	172.20	172.43
37 Condiments	0.27	174.59	209.67	210.32
38 Spices	0.54	236.24	268.44	268.98
39 Tea	0.84	199.69	212.34	201.61
Alcoholic Beverages, Tobacco	1.41	160.33	188.05	189.36
40 Cigarette	1.39	160.38	188.26	189.57
41 Betel Leaves & Nuts	0.02	157.36	175.17	176.60
Clothing & Footwear	7.57	143.03	164.08	165.67
42 Cotton Cloth	1.73	141.68	153.57	155.55
43 Woolen Cloth	0.88	154.48	182.08	184.64
44 Ready Made Garment	0.97	139.58	163.15	164.95
45 Woolen Readymade Garments	0.40	138.57	162.45	161.83
46 Hosiery	0.51	150.15	172.27	173.15
47 Dopatta	0.44	148.43	174.75	178.69
48 Cleaning & Laundering	0.21	153.90	180.05	182.46

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

Items and specification	Weights	Index		
		Jul-11	Jun-12	Jul-12
49 Tailoring	0.88	166.62	193.31	195.36
50 Footwear	1.55	122.56	142.07	142.27
Housing, Water, Elect, Gas & Other Fuel	29.41	140.08	153.35	147.92
51 House Rent	21.81	128.63	135.02	137.02
52 Construction Input Item	0.56	173.13	196.25	198.90
53 Construction Wage Rate	0.33	147.98	166.44	167.76
54 Water Supply	0.50	123.01	133.23	133.23
55 Electricity	4.40	168.71	196.37	196.37
56 Gas	1.58	204.32	264.42	134.34
57 Kerosene Oil	0.01	223.69	253.30	243.58
58 Fire Wood Whole	0.23	182.13	225.29	225.49
Furnished H.Hold Equip.& Maint. Etc	4.21	144.82	173.20	174.01
59 Furniture	0.33	141.06	162.55	163.36
60 Household Textile	0.65	142.92	169.15	170.35
61 Household Equipment	0.59	143.76	154.82	155.52
62 Utensils	0.32	139.81	171.16	173.16
63 Plastic Products	0.25	152.93	172.84	173.73
64 Washing Soap & Detergent	0.79	163.10	189.05	189.47
65 Sewing Needle & Dry Cell	0.15	133.16	148.03	148.64
66 Household Servant	1.04	134.26	180.92	181.30
67 Marriage Hall Charges	0.08	157.72	186.63	190.06
Health	2.19	129.63	147.42	149.84
68 Drug Medicine	1.27	120.51	131.03	132.72
69 Medical Equipment	0.01	166.55	188.56	189.54
70 Doctor (MBBS) Clinic Fee	0.59	147.49	180.36	185.15
71 Medical Test	0.32	131.86	150.49	151.52
Transport	7.20	158.63	182.98	178.58
72 Motor Vehicle	0.66	137.92	148.81	150.32
73 Motor Vehicle Accessories	0.24	173.62	201.80	203.03
74 Motor Fuel	3.03	151.63	180.20	164.31
75 Mechanical Service	0.46	149.97	175.42	179.09
76 Motor Vehicle Tax	0.11	118.09	152.02	152.02
77 Transport Services	2.70	173.31	195.30	200.29
Communication	3.22	123.45	123.62	123.56
78 Postal Services	0.07	162.09	171.37	171.37
79 Communication & Apparatus	3.15	122.64	122.61	122.55
Recreation & Culture	2.02	138.85	164.37	164.63
80 Recreation & Culture	0.86	114.65	121.37	121.45
81 Text Books	0.57	163.74	230.22	230.22
82 News Papers	0.19	141.92	149.97	149.97
83 Stationery	0.40	154.31	170.26	171.42
Education	3.94	138.92	152.28	152.71
84 Education	3.94	138.92	152.28	152.71
Restaurants And Hotels	1.23	177.90	195.10	196.24
85 Ready Made Food	1.23	177.90	195.10	196.24
Miscellaneous Goods And Services	2.76	165.50	190.51	190.67
86 Personal Care	1.49	151.27	174.03	174.64
87 Cosmetics	0.39	131.44	147.22	148.03
88 Blades	0.03	151.35	168.23	168.82
89 Personal Equipments	0.84	206.77	240.29	239.33

Table A11: Wholesale Price Index Numbers by Major Groups and Selected Commodities			
Items and Specifications	Index		
	Jul-11	Jun-12	Jul-12
General	177.26	189.37	190.05
Agriculture Forestry & Fishery	189.78	189.25	197.57
1 Wheat	155.93	163.58	164.32
2 Maize	168.55	168.35	166.89
3 Rice	136.50	156.72	157.90
4 Sorghum/Jowar	183.25	206.28	201.88
5 Millet/Bajra	160.60	164.48	176.57
6 Vegetables	155.13	149.26	185.97
7 Fresh Fruits	179.73	270.29	287.82
8 Dry Fruits	182.96	171.61	173.89
9 Cotton Seeds	197.72	176.68	181.23
10 Other Oil Seeds	159.75	171.79	174.82
11 Edible Roots/ Potatoes	216.35	159.37	178.09
12 Stimulant And Spice Crops	201.34	166.94	170.53
13 Pulses	197.31	223.78	221.59
14 Sugar Crops	251.58	267.92	267.92
15 Fibre Crops	252.74	185.62	194.22
16 Unmanufactured Tobacco	169.05	166.81	167.67
17 Poultry	198.48	187.34	222.42
18 Milk From Bovine Animals	182.96	202.77	207.47
19 Eggs	161.42	143.95	155.50
20 Raw Animal Material/Wool	132.01	136.50	135.38
21 Hides And Fur Skins, Raw	116.59	137.42	137.11
22 Fuel Wood In Logs	176.63	203.50	203.50
23 Fishes Live Fresh Or Chilled	133.82	156.79	171.26
Ores/Minerals, Gas & Elect.	162.42	215.23	206.19
24 Coal Not Agglomerated	125.49	192.16	196.08
25 Natural Gas Liquefied	159.54	208.33	188.89
26 Salt & Pure Sodium Chloride	141.43	168.19	165.22
27 Electrical Energy	170.70	226.10	226.10
Food, Beverages, Tobacco, Textiles	178.83	180.94	182.41
28 Meat Of Animals	197.41	225.25	225.25
29 Vegetables & Fruit Juices	169.93	179.40	179.40
30 Dried Fruits & Nuts	190.13	201.37	207.20
31 Fruit Juices	152.78	158.11	156.40
32 Vegetable Oil Refined	154.70	157.10	158.08
33 Vegetable Ghee	140.91	145.59	145.30
34 Oil Cakes	166.46	140.07	148.24
35 Processed Liquid Milk	171.22	200.35	202.74
36 Milk And Cream In Solid Form	188.73	167.32	169.39
37 Ice Cream	153.62	161.68	170.00
38 Dairy Products N.E.C	163.88	204.27	203.56
39 Wheat Flour	149.55	153.81	153.66
40 Other Cereal Flour	143.60	215.04	213.80
41 Sugar Refined	267.87	204.92	203.40
42 Chocolate	99.45	100.26	99.19
43 Sugar Confectionary	100.89	100.40	100.40
44 Coffee And Tea	188.59	197.17	191.91
45 Spices	207.28	303.27	305.49
46 Other Food Products	290.03	318.54	314.93
47 Mineral Water	160.81	165.88	165.88
48 Beverages	130.26	135.23	135.30
49 Tobacco Products	177.72	208.80	208.80
50 Cotton Yarn	225.76	191.40	198.24
51 Nylon Yarn	197.01	179.55	175.86
52 Blended Yarn	215.74	185.75	186.60
53 Woven Fabrics	144.44	171.55	169.72
54 Cotton Fabrics	157.68	177.38	174.86
55 Other Fabrics	146.70	166.92	165.46
56 Silk And Rayon Fabrics	137.07	142.56	142.47

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

Items and Specifications		Index		
		Jul-11	Jun-12	Jul-12
57	Towels	170.33	189.19	192.17
58	Blankets	137.48	162.38	164.83
59	Bed Sheets	152.16	182.90	185.57
60	Quilts	138.95	147.05	147.05
61	Woolen Carpets	107.14	104.76	106.55
62	Synthetic Carpets	151.29	139.83	128.41
63	Hosiery Products	148.44	164.67	164.70
64	Ready Made Garments	119.97	127.25	127.25
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		180.83	199.83	195.56
68	Timber	133.87	144.55	145.11
69	Printing Paper	115.36	153.92	153.92
70	Hard Board	141.67	166.67	166.67
71	Coke	155.28	163.45	163.45
72	Motor Sprit	141.38	160.04	143.91
73	Diesel Oil	222.70	245.87	232.99
74	Kerosene Oil	225.66	243.74	232.52
75	Furnace Oil	184.75	194.27	189.21
76	Mobil Oil	168.47	179.12	179.57
77	Chemicals	139.46	145.80	146.39
78	Dying Materials	107.04	104.26	104.26
79	Fertilizers	229.52	263.70	261.59
80	Pesticides	157.91	167.27	184.25
81	Insecticides	127.52	118.26	117.64
82	Paints & Varnishes	171.58	215.37	233.80
83	Medicines	115.54	129.55	134.27
84	Soaps & Detergent	145.12	157.37	157.12
85	Auto Tyres	161.85	176.49	176.49
86	Plastic Products	165.58	188.26	191.18
87	Glass Sheets	156.82	177.10	183.78
88	Other Glass Articles	192.26	217.98	217.98
89	Ceramics And Sanitary	131.02	146.66	150.87
90	Bricks Blocks And Tiles	153.09	170.93	170.40
91	Cement	156.80	177.78	180.22
92	Bed Foams	120.83	131.50	133.83
93	Matches	114.56	122.82	122.82
Metal Product Machinery & Equip		145.93	157.22	158.63
94	Pig Iron	128.97	128.97	128.97
95	Steel Bars & Sheets	128.65	139.13	139.57
96	Pipe Fittings	138.47	142.31	141.04
97	Steel Products	137.27	159.73	160.53
98	Engines And Motors	109.07	109.07	109.07
99	Vacuum Pumps	115.39	115.39	115.39
100	Air Conditioners	162.24	172.67	172.67
101	Cultivators	182.38	184.66	184.66
102	Chuff Cutter	131.08	138.54	138.54
103	Tractors	180.89	172.36	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	158.44	164.93	164.31
107	Electrical Wires	153.24	165.49	163.80
108	Lighting Equipments	130.46	146.79	146.79
109	Radio And Television	127.86	132.73	132.73
110	Motor Vehicles	147.72	160.28	167.04
111	Motor Cycles	120.86	124.02	125.19
112	Bicycles	159.78	171.52	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	156.88	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
*: all groups combined								

Table A13: International Commodity Prices/ Indices

	Apr-12	May-12	Jun-12	Jul-12
Energy				
Crude Oil (US\$ per barrel) *	113.8	104.2	90.7	96.8
IMF Energy Index (2005 = 100)	210.0	194.7	172.5	180.6
WB Energy Index (2005 = 100) @	201.1	185.7	163.6	172.8
Food				
Rice (\$/MT)	586.0	612.4	606.1	578.4
Wheat (\$/MT)	266.3	264.4	276.2	345.7
Sugar (US cent/ pound)	22.5	20.3	20.1	22.8
Palm Oil (\$/MT)	1,157.5	1,031.1	927.6	952.5
Soybean Oil (\$/MT)	1,232.6	1,134.6	1,097.8	1,175.3
Non-Food Non-Energy				
Cotton Outlook 'A' Index #	100.1	88.5	82.2	84.0
IMF Metal Price Index (2005 = 100)	203.5	193.3	185.7	183.2
Copper (\$/MT)	8,285.5	7,896.9	7,428.3	7,584.3
Aluminum (\$/MT)	2,048.5	2,002.5	1,885.5	1,876.3
Iron Ore (\$ cents/dry MT)	147.7	136.3	134.6	127.9
Tin (\$/MT)	22,114.5	20,295.3	19,255.4	18,546.1
Nickle (\$/MT)	17,892.8	16,968.3	16,603.7	16,128.4
Zinc (\$/MT)	2,002.7	1,928.0	1,855.9	1,847.8
Lead (\$/MT)	2,073.6	1,999.3	1,851.0	1,881.5
Uranium (\$/MT)	51.3	51.9	50.8	50.4
DAP (\$/MT)	518.1	553.0	564.4	563.1
Urea (\$/MT)	493.4	496.7	420.0	384.5

Source: IMF and World Bank

\$/MT = US\$ per metric ton.

* Crude Oil (Petroleum), simple average of three spot prices; Dated Brent, West Texas Intermediate, and the Dubai fateh

Middling 1-3/32 inch staple, Liverpool Index "A", average of the cheapest Cts/lb five of fourteen styles, CIF Liverpool (Cotton Outlook, Liverpool). From January 1968 to May 1981 strict middling 1-1/16 inch staple. Prior to 1968, Mexican 1-1/16.2/

DAP: Diammonium Phosphate

@ World Bank commodity index for low and middle income countries

Table 14. CPI Data Series Original and Seasonally Adjusted				
Original Series				
Period	FY10	FY11	FY12	FY13
Jul	122.46	137.62	154.72	169.57
Aug	124.68	140.63	156.88	
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	122.20	137.34	154.41	169.23
Aug	123.98	139.83	155.99	
Sep	124.23	142.69	157.60	
Oct	124.55	143.60	159.32	
Nov	126.65	145.59	160.41	
Dec	127.16	146.83	161.16	
Jan	129.87	147.93	162.88	
Feb	130.97	147.85	164.23	
Mar	132.51	149.80	165.97	
Apr	134.11	150.91	167.87	
May	134.77	151.83	170.52	
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	
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	130.66	148.98	174.46	190.37
Aug	133.27	154.79	175.14	
Sep	133.02	161.11	176.95	
Oct	133.39	160.58	179.16	
Nov	136.57	163.62	179.83	
Dec	136.97	165.03	180.57	
Jan	138.92	167.00	182.45	
Feb	141.55	166.65	184.24	
Mar	143.49	169.21	185.74	
Apr	145.84	169.86	188.05	
May	147.17	170.67	190.01	
Jun	148.79	172.65	190.57	

Table 16: CPI Monthly & Average Seasonal Factors					
Period	FY10	FY11	FY12	FY13	Average
Jul	100.22	100.20	100.20	100.20	100.2
Aug	100.57	100.57	100.57		100.6
Sep	100.53	100.56	100.57		100.6
Oct	100.88	100.90	100.92		100.9
Nov	100.52	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	99.36	99.32	99.29		99.3
Mar	99.43	99.41	99.40		99.4
Apr	100.04	100.06	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	100.24	100.24	100.20	100.18	100.2
Aug	101.26	101.24	101.24		101.2
Sep	101.64	101.77	101.81		101.7
Oct	101.94	102.08	102.18		102.1
Nov	101.68	101.81	101.91		101.8
Dec	99.15	99.19	99.25		99.2
Jan	99.73	99.71	99.70		99.7
Feb	98.24	98.15	98.08		98.2
Mar	98.76	98.75	98.77		98.8
Apr	99.59	99.64	99.67		99.6
May	98.99	98.89	98.81		98.9
Jun	98.55	98.40	98.31		98.4

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	
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	0.65	-0.84
Aug	1.46	1.81	1.02	
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	0.09	

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	
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		0.13	1.04	-0.10
Aug	2.00	3.90	0.39	
Sep	-0.19	4.09	1.03	
Oct	0.28	-0.33	1.25	
Nov	2.38	1.90	0.38	
Dec	0.29	0.86	0.41	
Jan	1.42	1.19	1.04	
Feb	1.89	-0.21	0.98	
Mar	1.37	1.54	0.82	
Apr	1.64	0.39	1.24	
May	0.91	0.47	1.04	
Jun	1.10	1.16	0.29	

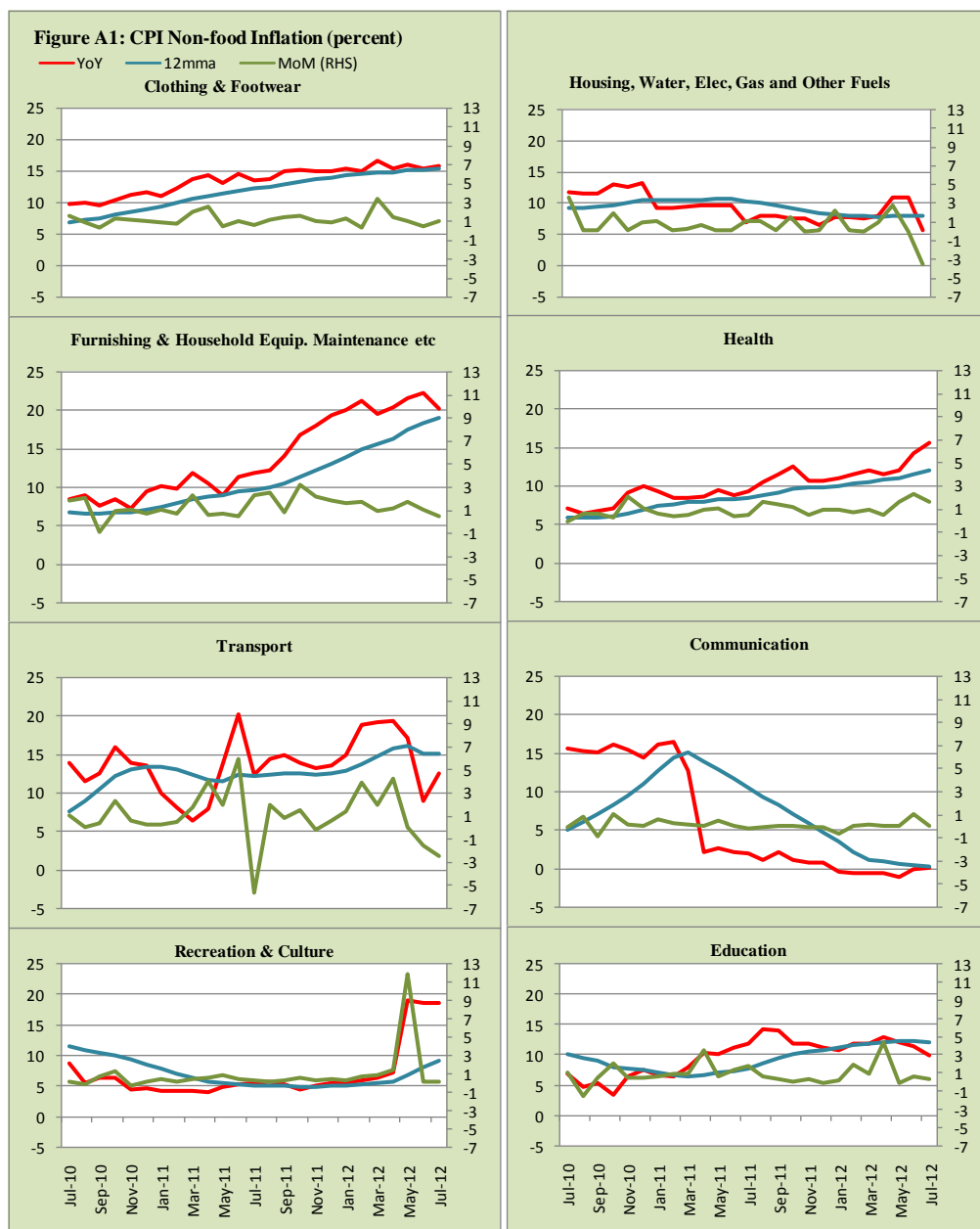


Figure A2: Frequency Distribution of Price Changes of CPI Items, July 2012

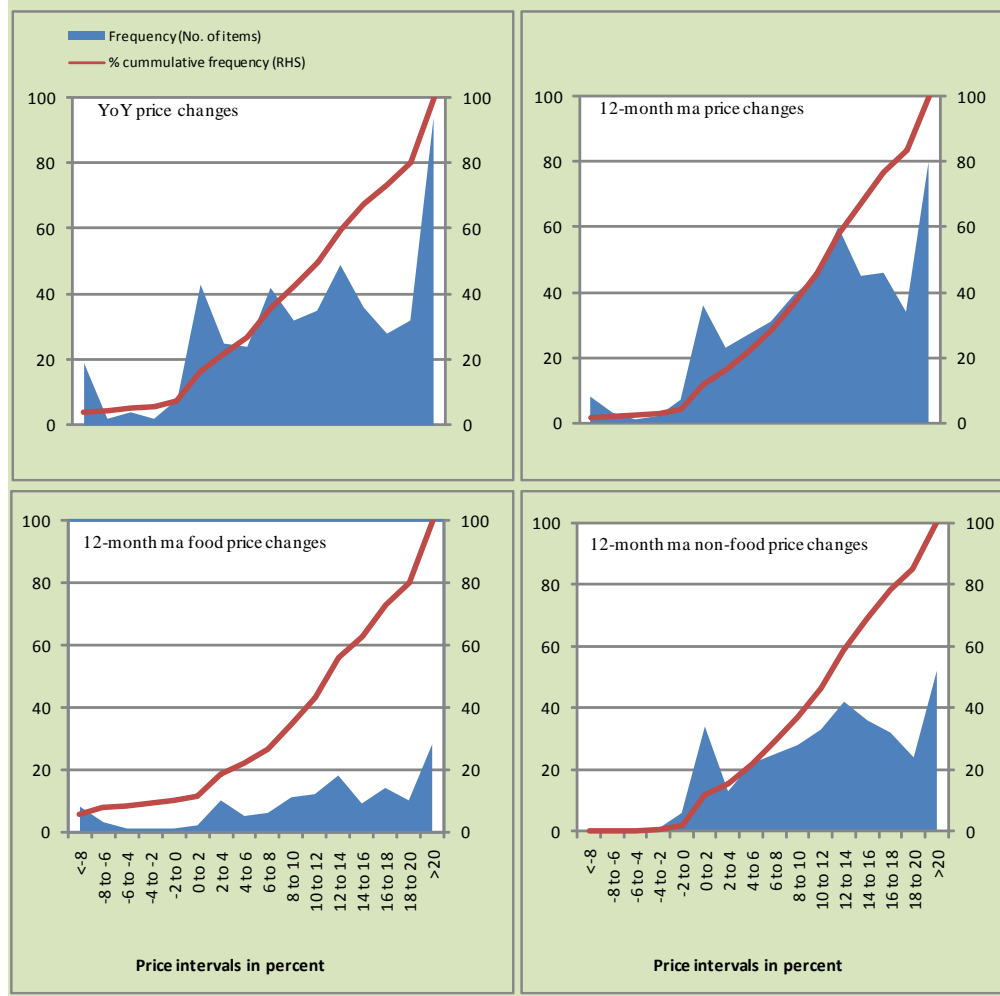


Figure A3: Frequency Distribution of Price Changes of WPI Commodities, July 2012

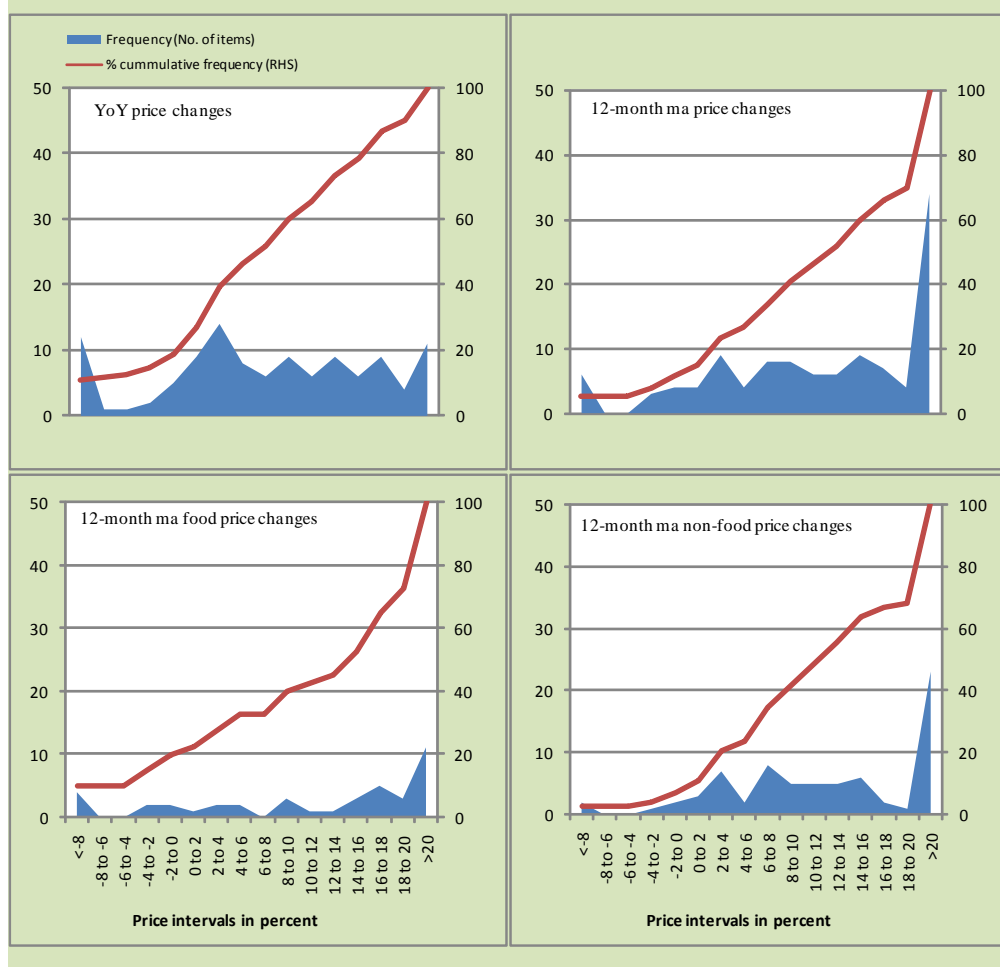
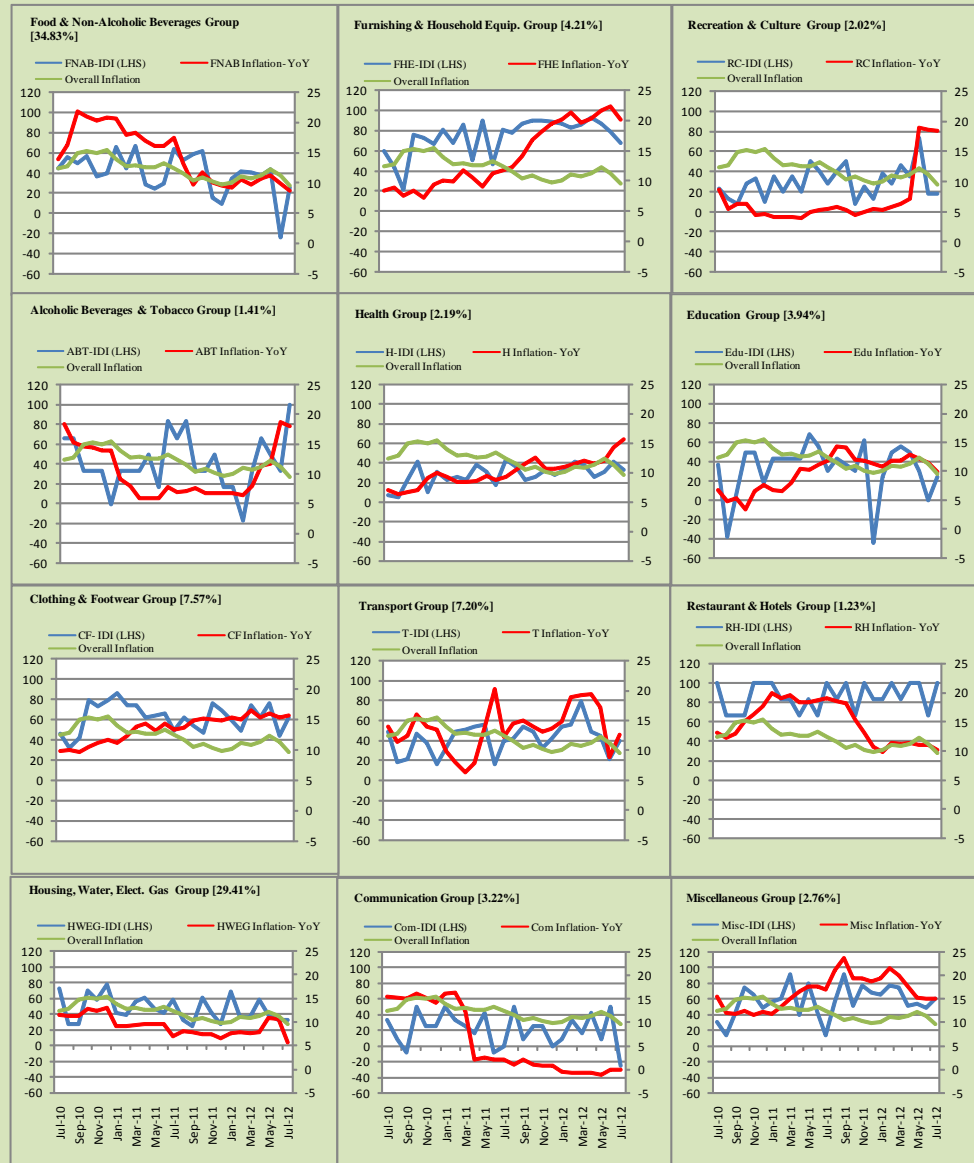


Figure A4: Group- wise Inflation Diffusion Index (IDI) and Respective/ Overall YoY Inflation (percent)



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.