

Inflation Monitor

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State Bank of Pakistan

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Review

Inflation in Brief

1. Headline CPI inflation on base (2007-08=100) is recorded at 10.1 percent on year-on-year basis in January 2012 as compared to 9.7 percent in the previous month and 13.9 percent in the corresponding month of last year.
2. CPI inflation on month-on-month basis increased to 1.5 percent in January 2012 as compared to -0.7 percent in the previous month and 1.2 percent in the corresponding month of last year. Seasonally adjusted month-on-month CPI inflation comes to 1.0 percent in January 2012 as compared to 0.6 percent in previous month.
3. Core inflation (trimmed) on year-on-year basis decreased to 10.4 percent in January 2012 as compared to 10.6 percent in the previous month and 12.1 percent in the corresponding month of last year.
4. On month-on-month basis, the Core inflation (trimmed) was 0.8 percent in January 2012 as compared to 0.3 percent in December 2011 and 1.1 percent in January 2011.
5. Non-food, non-energy inflation measured by CPI Core (NFNE) on year-on-year basis is recorded at 10.3 percent in January 2012 as compared to 10.2 percent a month earlier and 9.9 percent in January 2011.
6. Core NFNE inflation on month-on-month basis increased to 1.1 percent in January 2012 as compared to 0.5 percent a month earlier. Core NFNE was 1.0 percent in January 2011.
7. WPI inflation on year-on-year basis increased to 8.7 percent in January 2012 when compared to 8.3 percent a month earlier. During January 2011, WPI inflation was recorded at 20.9%.

8. WPI inflation on month-on-month basis increased to 2.3 percent in January 2012 as compared to -1.3 percent a month earlier. It was 1.9 percent in January 2011.
9. SPI inflation on year-on-year basis is recorded at 6.8 percent in January 2012 as compared to 5.1 percent a month earlier and 17.6 percent in corresponding month of the last year.
10. SPI inflation on month-on-month basis increased to 1.8 percent in January 2012 when compared to -1.4 percent a month earlier while it was 0.3 percent in January 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				
Jan-11	13.9	1.2	20.2	1.7	9.7	0.8	9.9	1.0	12.1	1.1	20.9	1.9	17.6	0.3
Feb-11	12.8	-0.6	17.6	-1.8	9.7	0.3	9.7	0.4	12.0	0.4	22.1	2.0	15.4	-1.2
Mar-11	13.0	1.4	17.9	2.2	9.7	0.9	9.7	0.8	12.1	1.0	24.3	3.3	15.1	1.1
Apr-11	12.5	1.4	16.5	1.3	9.8	1.5	9.5	1.4	12.0	1.0	24.9	2.4	14.5	0.6
May-11	12.6	0.2	15.8	-0.3	10.5	0.6	9.8	0.5	12.1	0.5	22.3	-1.0	13.8	0.1
Jun-11	13.3	1.0	15.9	0.7	11.6	1.2	9.9	0.5	12.4	0.7	22.8	0.6	13.7	0.1
Jul-11	12.4	1.3	17.1	2.9	9.3	0.1	9.6	1.2	11.9	1.1	20.3	-0.4	12.7	2.0
Aug-11	11.6	1.4	13.2	1.4	10.4	1.4	10.1	0.8	12.4	0.7	18.7	0.6	11.9	1.4
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

* NFNE is Non-food non-energy

** SPI for all income groups combined

Fig 1.1: Summary of Price Inflation

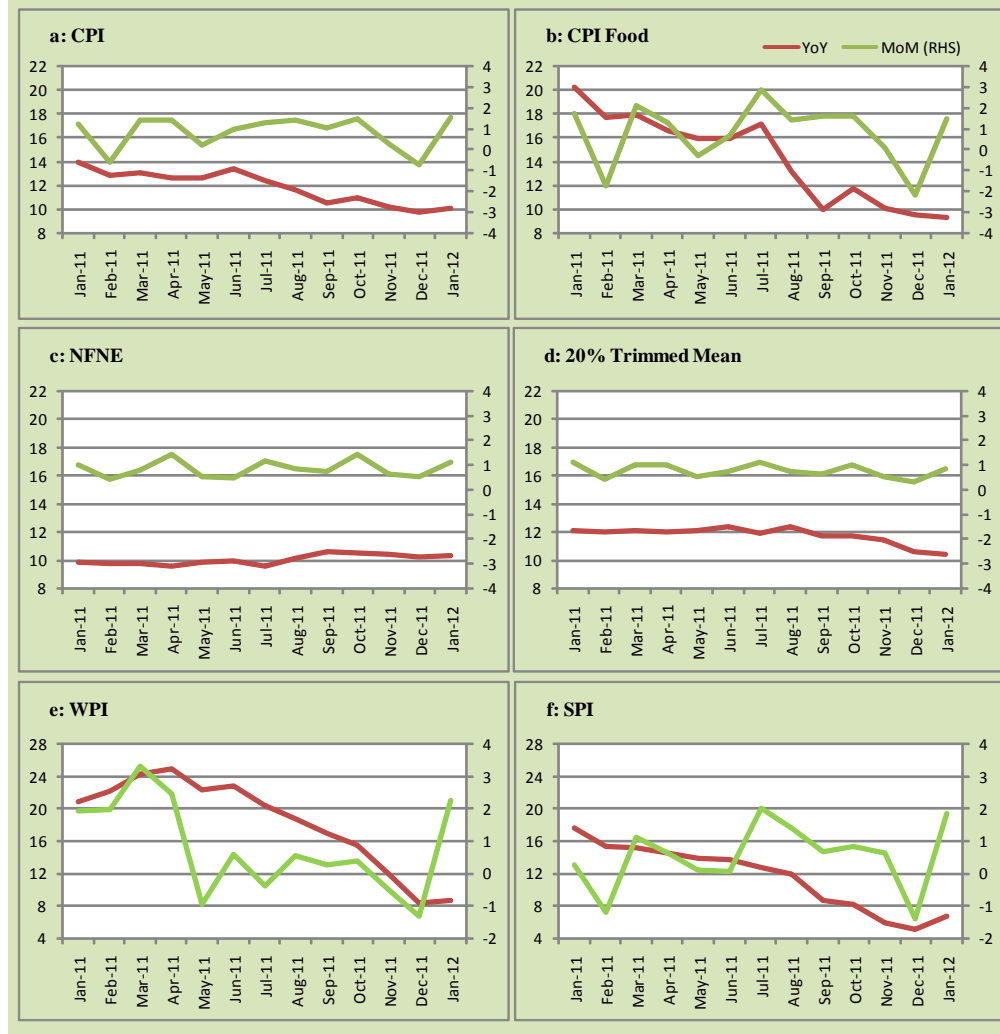


Fig 1.2: Movements in Price Indices (percent)

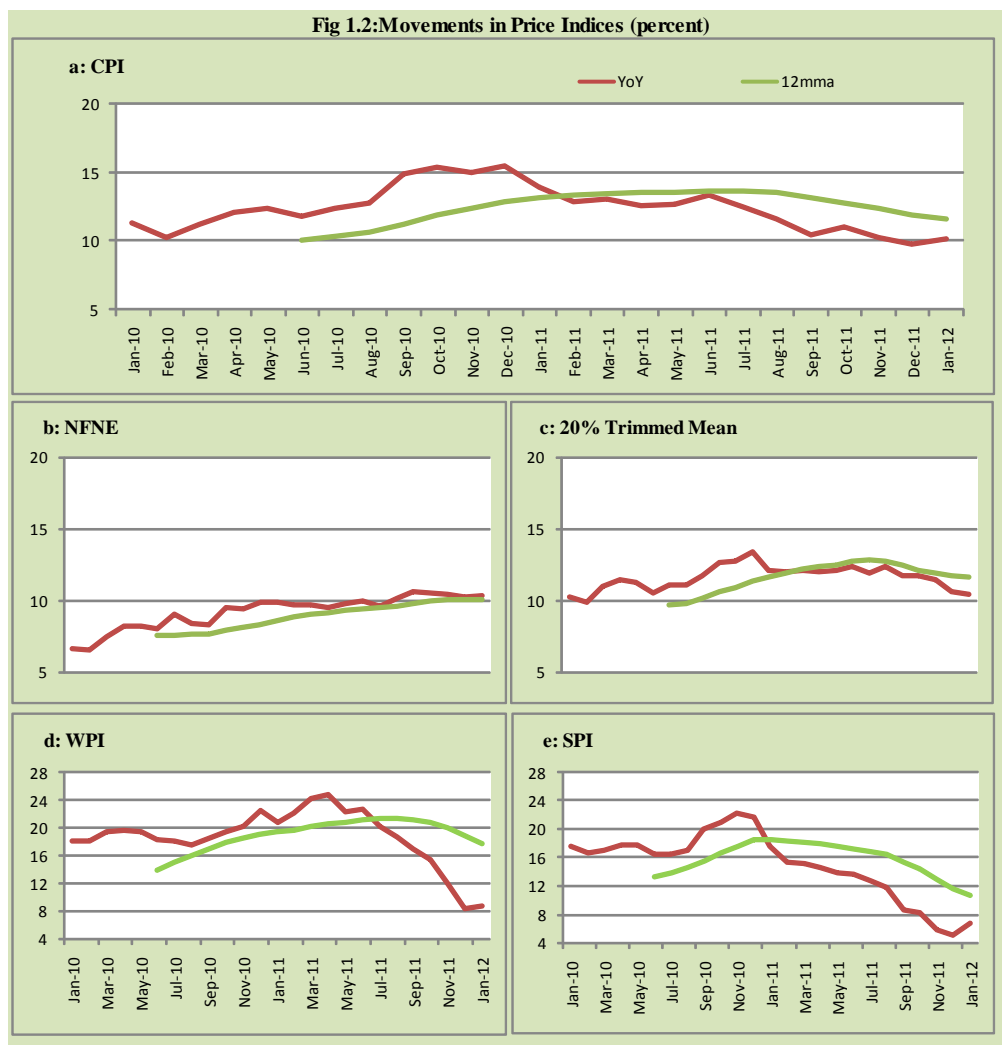


Fig 1.3: Movements in Price Indices -MoM (percent)

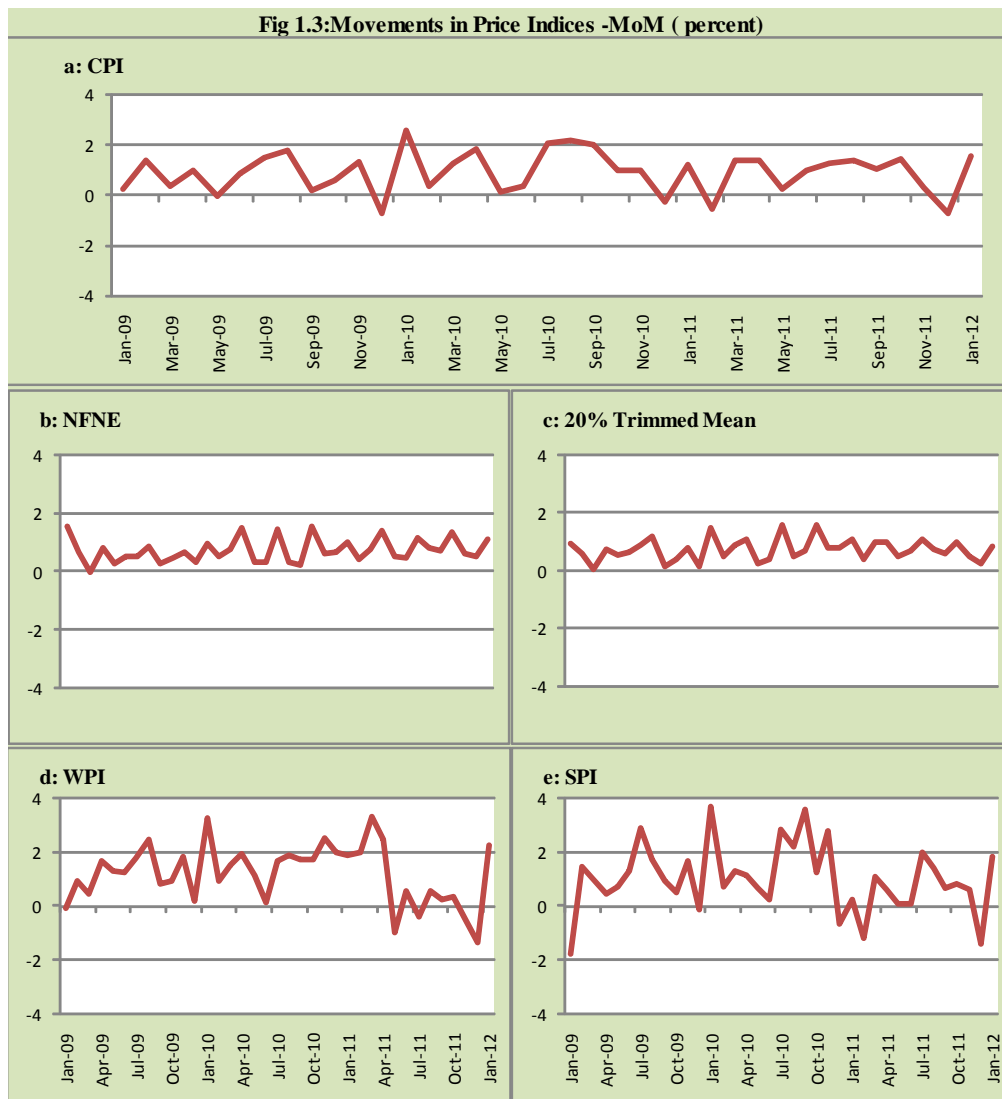
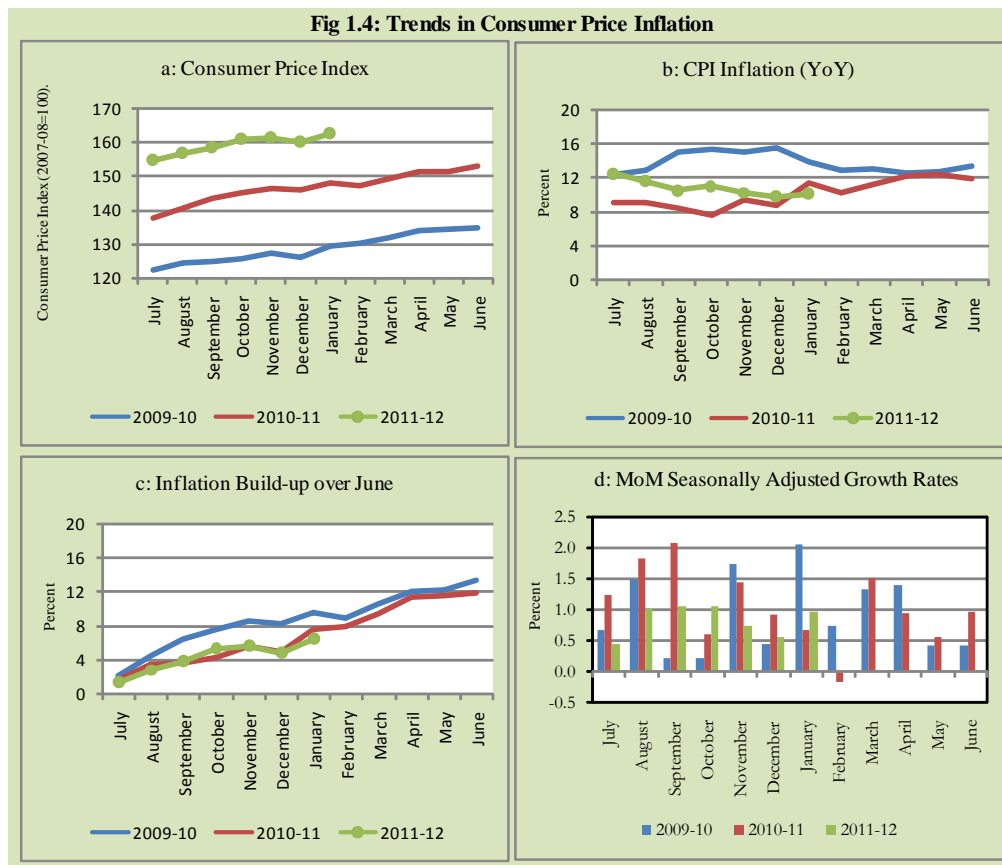


Fig 1.4: Trends in Consumer Price Inflation



2. City wise Inflation

CPI Inflation on year-on-year basis in federal and provincial capitals of Pakistan was lower than overall inflation observed during January 2012 except Karachi. Among these five cities, the lowest inflation was observed in Peshawar which is 7.7 percent while the highest inflation was observed in Karachi which is 10.1 percent (Table A6 of annexure-A).

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

	Jan-11		Dec-11		Jan-12	
	MoM	YoY	MoM	YoY	MoM	YoY
Overall CPI	1.2	13.9	-0.7	9.7	1.5	10.1
Islamabad	1.0	13.4	-0.3	8.3	1.7	9.0
Karachi	0.5	12.4	-0.6	9.1	1.4	10.1
Lahore	1.6	11.1	-0.9	8.3	2.1	8.8
Peshawar	0.4	12.5	-1.0	7.9	0.2	7.7
Quetta	1.5	17.1	-0.1	7.8	1.6	8.0

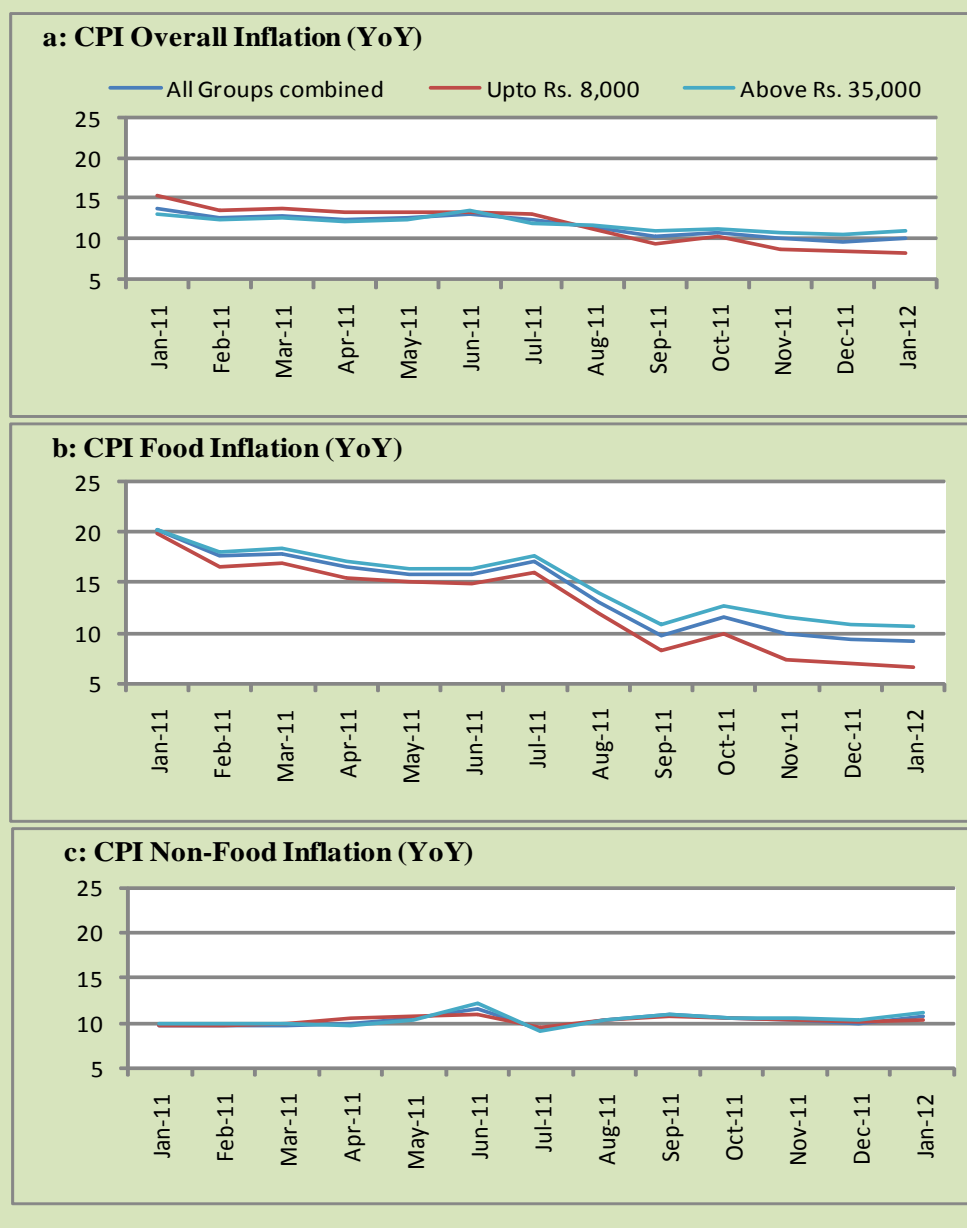
3. Income Group wise Inflation

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

Table 3.1 Income Group- wise Inflation (YoY)

Income Groups	General			Food			Non-food		
	Jan-11	Dec-11	Jan-12	Jan-11	Dec-11	Jan-12	Jan-11	Dec-11	Jan-12
All Groups combined	13.9	9.7	10.1	20.2	9.5	9.2	9.7	9.9	10.7
Up to Rs. 8,000	15.3	8.4	8.3	19.9	7.1	6.7	9.7	10.2	10.4
Rs. 8,001- 12,000	15.0	9.0	8.9	20.0	8.0	7.6	9.7	10.1	10.4
Rs. 12,001- 18,000	13.6	9.2	9.2	20.2	8.6	8.3	7.4	9.8	10.0
Rs. 18,001- 35,000	15.2	9.5	9.9	20.2	9.3	9.1	11.2	9.7	10.5
Above Rs. 35,000	13.2	10.6	11.0	20.3	10.9	10.7	9.9	10.4	11.1

Fig 3.1: Income Group- wise Inflation



4. Weighted Contribution

The weighted contribution of food group in the overall inflation decreased to 38.66 percent during January 2012 from 40.91 percent in December 2011 while it was 58.16 percent in January 2011.

The weighted contribution of non-food group showed increase to touch 61.34 percent in January 2012 from 59.09 percent in December 2011.

Table 4.1 Weighted Contribution to CPI Inflation (YoY)

Period	Food	Clothing & Footwear	Housing, Water, Elect, Gas & Other Fuel	Transport	Education	Others
Jan-11	58.16	5.58	18.91	5.27	1.78	10.30
Feb-11	54.92	6.78	20.37	4.70	1.88	11.34
Mar-11	55.44	7.17	19.99	3.76	2.21	11.43
Apr-11	53.46	7.93	21.27	4.85	2.98	9.51
May-11	50.91	7.31	21.02	8.14	2.92	9.71
Jun-11	48.53	7.57	19.80	11.33	3.02	9.76
Jul-11	55.81	7.49	15.60	7.29	3.41	10.39
Aug-11	47.56	8.12	18.86	9.01	4.24	12.21
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

5. Inflation Diffusion Index

Table 5.1 Inflation Diffusion Index - based on MoM change													
	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12
General	57.8	49.3	61.7	42.7	52.8	38.2	51.3	53.4	56.1	52.2	47.3	37.7	51.5
Food & Non-Alcoholic Beverages	64.9	44.2	66.1	27.9	24.3	28.9	63.2	51.7	57.8	60.9	15.3	9.4	34.2
Alcoholic Beverages & Tobacco	33.3	33.3	33.3	50.0	16.7	83.3	66.7	83.3	33.3	33.3	50.0	16.7	16.7
Clothing & Footwear	86.4	74.6	74.6	62.7	64.4	66.1	49.2	62.7	54.2	47.5	76.3	69.5	59.3
Housing, Water, Elect, Gas & other Fuels	41.7	38.9	55.6	61.1	47.2	41.7	58.3	33.3	25.0	61.1	41.7	27.8	69.4
Furnishing & Household Equip. Maintenance etc	81.2	68.1	85.5	50.7	89.9	46.4	81.2	78.3	87.0	89.9	89.9	88.4	87.0
Health	23.1	25.6	23.1	38.5	30.8	17.9	43.6	35.9	23.1	25.6	33.3	28.2	33.3
Transport	32.6	48.8	51.2	53.5	55.8	16.3	39.5	41.9	53.5	48.8	32.6	41.9	53.5
Communication	50.0	33.3	25.0	16.7	41.7	-8.3	0.0	50.0	8.3	25.0	25.0	0.0	8.3
Recreation & Culture	35.9	20.5	35.9	20.5	51.3	41.0	28.2	41.0	51.3	7.7	25.6	12.8	38.5
Education	43.8	43.8	43.8	43.8	68.8	56.3	31.3	43.8	37.5	31.3	62.5	-43.8	25.0
Restaurant & Hotels	100.0	83.3	83.3	66.7	83.3	66.7	100.0	83.3	100.0	66.7	100.0	83.3	83.3
Miscellaneous	57.1	60.0	91.4	40.0	80.0	42.9	14.3	57.1	91.4	51.4	77.1	68.6	65.7
NFNE	56.5	52.4	60.1	47.3	63.3	40.8	48.2	53.8	55.6	49.7	59.8	47.3	58.3

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

6. Domestic Commodity Prices

Table 6.1 Inflation in Domestic CPI Food Commodities

	Item	Unit	Jan-11		Dec-11		Jan-12	
			YoY	MoM	YoY	MoM	YoY	MoM
1	Wheat	10 Kg.	1.46	1.04	1.27	2.88	0.41	0.19
2	Wheat Flour Bag	10 Kg.	3.04	0.42	0.26	1.16	0.36	0.52
3	Rice Basmati Sup. Qlty.	Kg.	13.75	3.76	10.53	-0.53	6.50	-0.02
4	Pulse Masoor (Washed)	Kg.	-2.21	0.62	-11.14	0.10	-12.44	-0.84
5	Pulse Moong (Washed)	Kg.	82.23	0.29	-7.43	-0.66	-9.79	-2.26
6	Pulse Mash (Washed)	Kg.	26.12	-2.17	-10.70	0.18	-9.26	-0.60
7	Pulse Gram	Kg.	40.89	0.87	-1.39	-0.99	-1.72	0.53
8	Vegetable Ghee (Loose)	Kg.	40.94	8.36	8.59	0.21	0.16	-0.04
9	Sugar Refined	Kg.	13.48	0.75	-24.57	-17.44	-29.35	-5.64
10	Milk Fresh (Unboiled)	Ltr.	20.07	1.46	20.04	0.55	18.80	0.41
11	Curd	Kg.	17.36	0.97	20.64	0.78	20.68	1.01
12	Beef With Bone Av. Qlty.	Kg	27.52	1.35	16.45	0.15	15.24	0.30
13	Mutton Av. Qlty.	Kg	35.17	1.65	20.34	0.52	19.31	0.78
14	Chicken Farm Broiler (Live)	Kg	6.60	3.86	7.03	-3.40	27.90	24.12
15	Eggs Farm	Doz	-7.73	7.91	14.09	6.84	25.03	18.26
16	Potatoes	Kg	8.73	-21.03	-14.54	-22.14	-10.00	-16.83
17	Onion	Kg	63.76	-23.68	-27.44	-27.60	1.83	7.12
18	Tomatoes	Kg	327.03	26.56	-0.12	-10.34	-35.70	-18.52
19	Ginger	Kg	49.83	-6.55	-44.05	-12.35	-39.43	1.17
20	Garlic	Kg	44.96	-4.24	-52.21	-17.08	-50.45	-0.71

7. Global Commodity Prices

Table 7.1 Changes in Major Global Indices (percent)

Item/ Group	Jan-11		Dec-11		Jan-12	
	YoY	MoM	YoY	MoM	YoY	MoM
Overall	27.8	6.8	8.0	-1.3	3.6	2.5
Food	29.9	3.5	-8.7	-1.7	-10.7	1.3
Metals	58.7	26.7	-0.8	-0.6	-17.7	5.2
Energy	20.9	4.1	17.2	-1.0	15.3	2.4
Agricultural	38.3	4.3	-12.7	-3.0	-14.1	2.7
Cotton	131.2	6.4	-43.3	-8.8	-43.5	5.9

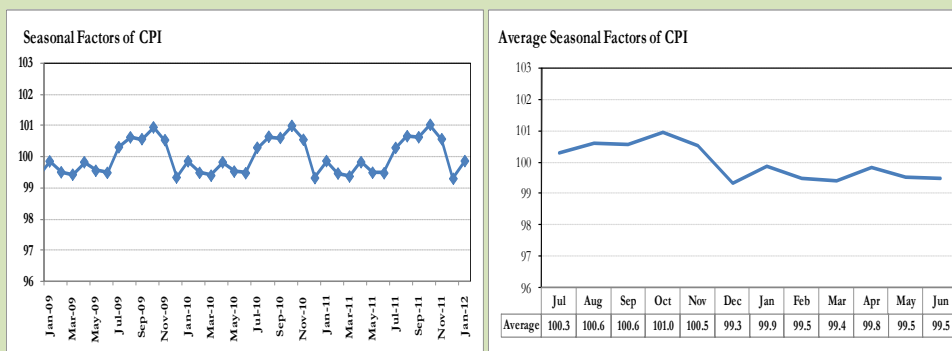
8. Seasonal Adjustment in CPI

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

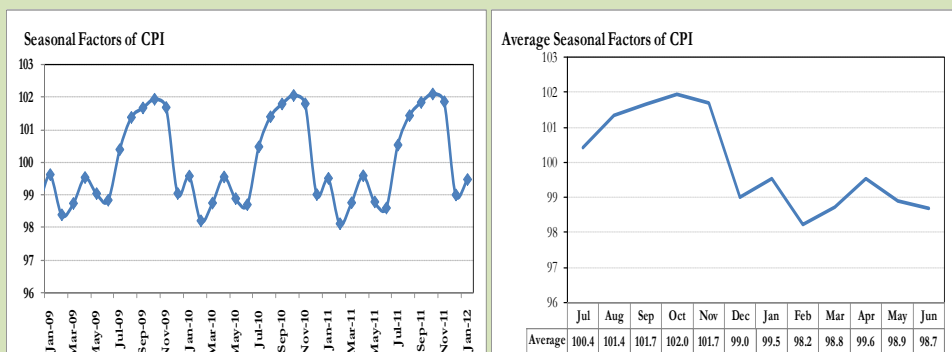
Figure 8.1 reveals that seasonality in CPI has been increasing over the period of last four years. Average seasonal factors reveal strong seasonality during the calendar year. There is an upward seasonality during the months of July to November and downward seasonality in the remaining months of the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

Fig. 8.1 Seasonal Factors of CPI



Note: Data Available in Annex 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

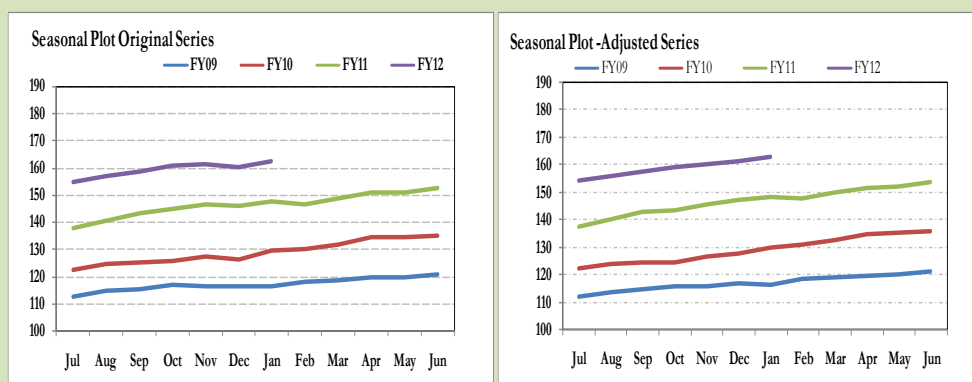
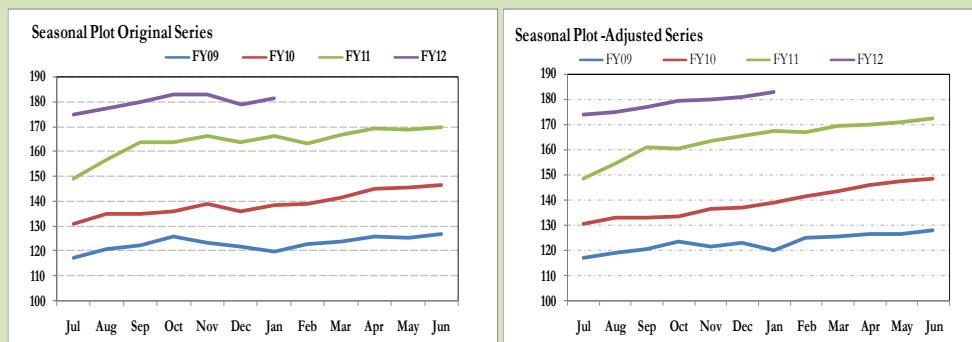


Fig. 8.4 Seasonal Plots of CPI (Food)



Seasonally adjusted CPI for January 2012 stood at 162.79 against 162.58 in original series showing an increase of 0.21 on account of adjustment of downward seasonality in January 2012.

Seasonally adjusted CPI food group for January 2012 stood at 182.87 against 181.90 in original series showing an increase of 0.97 on account of adjustment of downward seasonality in January 2012.

Month-on-month change of seasonally adjusted CPI series stood at 0.96% reflecting an increase during January 2012 over December 2011 and increase of 1.54% in original series.

Month-on-month change of seasonally adjusted CPI food group series stood at 1.02% reflecting an increase during January 2012 over December 2011 and increase of 1.50% 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 January 2012 (corresponding to the seasonally adjusted month-on-month rate) is 12.21 percent.

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

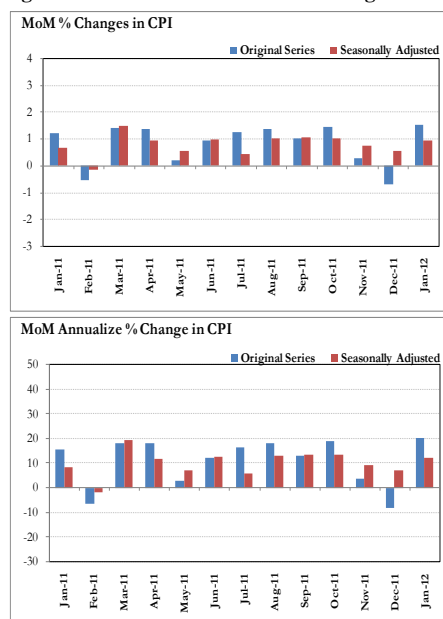
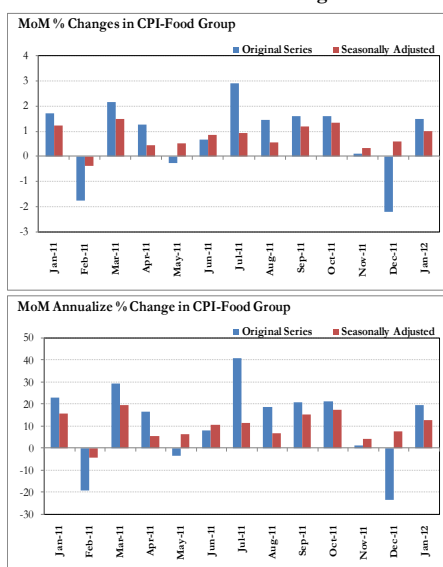


Fig. 8.6 Month-on-Month Percent Changes in CPI Food



Annexure A

Table A1: CPI Inflation by Groups (percent)							
	Weights	MoM change			YoY change		
		Jan-11	Dec-11	Jan-12	Jan-11	Dec-11	Jan-12
I. Food Group	37.5	1.7	-2.2	1.5	20.2	9.5	9.2
Food & Non-Alcoholic Beverages	34.8	1.8	-2.4	1.6	20.7	9.5	9.3
Alcoholic Beverages & Tobacco	1.4	0.0	0.0	0.0	9.2	6.9	6.8
Restaurant & Hotels	1.2	2.1	0.3	1.3	19.9	10.9	9.9
II. Non-Food Group	62.5	0.8	0.4	1.6	9.7	9.9	10.7
Clothing & Footwear	7.6	0.9	0.8	1.3	11.1	14.9	15.3
Housing, Water, Elect, Gas & other Fuels	29.4	1.1	0.1	2.3	9.2	6.4	7.7
Furnishing & Household Equip. Maint	4.2	1.0	1.8	1.5	10.1	19.4	20.1
Health	2.2	0.6	1.0	1.0	9.2	10.6	11.0
Transport	7.2	0.3	0.6	1.3	9.9	13.6	14.8
Communication	3.2	0.5	-0.1	-0.6	16.2	0.8	-0.4
Recreation & Culture	2.0	0.4	0.5	0.4	4.3	5.5	5.5
Education	3.9	0.6	-0.1	0.2	6.8	11.3	10.8
Miscellaneous	2.8	0.5	0.6	1.0	11.9	18.8	19.4
Headline	100.0	1.2	-0.7	1.5	13.9	9.7	10.1

Table A2: Distribution of Price changes (YoY) of CPI basket											
Groups	% changes	No of items in each inflation range									
		Total number of items		Decrease or no change (0% or less)		Subdued increase (>0% but <5%)		Moderate increase (5% but less than 10%)		Double digit increase (10% or more)	
		Jan-11	Jan-12	Jan-11	Jan-12	Jan-11	Jan-12	Jan-11	Jan-12	Jan-11	Jan-12
I. Food Group	9.2	125	125	8	15	12	13	15	27	90	70
Food & Non-Alcoholic Beverages	9.3	113	113	8	15	12	12	12	21	81	65
Alcoholic Beverages & Tobacco	6.8	6	6	0	0	0	1	3	2	3	3
Restaurant & Hotels	9.9	6	6	0	0	0	0	0	4	6	2
II. Non-Food Group	10.7	348	348	54	41	54	46	89	62	151	199
Clothing & Footwear	15.3	59	59	6	9	0	0	16	3	37	47
Housing, Water, Elect, Gas & other Fuels	7.7	36	36	2	1	2	5	13	10	19	20
Furnishing & Household Equip. Maintenance etc	20.1	69	69	2	2	10	2	18	14	39	51
Health	11.0	39	39	10	15	11	5	3	5	15	14
Transport	14.8	43	43	10	0	6	6	12	7	15	30
Communication	-0.4	12	12	4	5	4	4	1	2	3	1
Recreation & Culture	5.5	39	39	12	6	12	18	7	8	8	7
Education	10.8	16	16	3	2	5	2	5	4	3	8
Miscellaneous	19.4	35	35	5	1	4	4	14	9	12	21
Overall	10.1	473	473	62	56	66	59	104	89	241	269

Note: Prices of 14 seasonal items were not reported during the month.

Table A3: Top Ten Contributors to CPI Inflation (YoY) in January 2012					
Items/ Contributors		Weights	YoY Change		Weighted Contribution
			Jan-11	Jan-12	
A. Ranked by Weighted Contribution					
1	Milk Fresh	6.68	20.06	18.74	13.88
2	House Rent	21.81	8.48	6.12	11.25
3	Gas	1.58	8.87	29.41	6.35
4	Motor Fuel	3.03	4.14	20.43	5.69
5	Meat	2.43	29.90	16.56	4.77
6	Fresh Fruits	1.86	22.23	25.23	4.70
7	Chicken	1.36	6.60	27.90	3.72
8	Education	3.94	6.82	10.82	3.64
9	Household Servant	1.04	8.60	35.56	3.13
10	Transport Services	2.70	17.08	10.48	3.08
Total		46.44			60.20
B. Ranked by Percentage Change					
1	Household Servant	1.04	8.60	35.56	3.13
2	Gas	1.58	8.87	29.41	6.35
3	Chicken	1.36	6.60	27.90	3.72
4	Condiments	0.27	6.82	27.34	0.77
5	Spices	0.54	52.79	27.32	2.16
6	Kerosene Oil	0.01	9.88	26.09	0.02
7	Fresh Fruits	1.86	22.23	25.23	4.70
8	Woolen Cloth	0.88	13.66	25.13	2.04
9	Egg	0.46	-7.73	25.03	1.42
10	Medical Equipment	0.01	17.01	24.69	0.02
Total		8.00			24.33
C. Ranked by Weights					
1	House Rent	21.81	8.48	6.12	11.25
2	Milk Fresh	6.68	20.06	18.74	13.88
3	Electricity	4.40	11.87	1.22	0.60
4	Wheat Flour	4.16	2.66	1.04	0.48
5	Education	3.94	6.82	10.82	3.64
6	Communication & Apparatus	3.15	16.62	-0.48	-0.12
7	Motor Fuel	3.03	4.14	20.43	5.69
8	Transport Services	2.70	17.08	10.48	3.08
9	Meat	2.43	29.90	16.56	4.77
10	Vegetable Ghee	2.07	34.82	4.36	0.90
Total		54.39			44.16
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 10.1 percent in January, 2012.					

Table A4: Distribution of Price Changes (YoY) - Selected CPI Items: January 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, Ginger, Tomatoes, Sugar Refined, Gur Av.Qlty, Pulse Masoor (Washed), Potatoes, Pulse Moong (Washed)	Gram Whole Black Av Qlty., Groundnuts (With Shell), Suji, Onion, Coriander Seed (Loose), Maida, Wheat Flour Avg. Qlty	Salt Powdered (National/Shan), Mustard Oil Av.Qlty., Bread Plain Medium Size, Cold Drink (Standard Size), Beans (Lal Lobia)	Cloves Loose Av.Qlty, Carrot, Pepper Black National, Turnip, Chillies Powd.National 200 Gm, Cabbage, Spinach, Cauliflower, Apple, Malta/Mosambi
Alcoholic Beverages & Tobacco		Cigarettes Capstan 20,S	Cigarettes Gold Leaf 20,S, Cigarettes Morven Gold 20,S	Cigarettes K-20,S, Betel Nuts, Betel Leaves
Clothing & Footwear	Heavy Wt Suiting Law.Pur Av. Qlty, Child Shoe Power Lite Bata, Gents Shoes Paul Bata, Gents Spoung Chappal Bata		Tailoring Charges Pant (Men), Tailoring Coat-Pant Suit, Gloves Av.Qlty	Heavy Wt Suiting Law.Pur Sup. Qlty, Brassier Av.Qlty, Georgette Av.Qlty, Linen Av.Qlty, Dopatta Georgette Av.Qlty, Lungi/Dhoti(Cotton) Av.Qlty, Shirting Av.Qlty., Frock W/Wear Girls, Vest For Men Av.Qlty., Washing Ch. (Kamiz-Shalwar)
Housing, Water, Elect, Gas & other Fuels	Elect. Charges Upto 50 Units	Elect. Charges 01 - 100 Units, Elect. Charges 101 - 300 Units, Elect. Charges Overall/ Combined, Elect. Charges 301 - 1000 Units	Plumber Wage Rate, Water Charges Per House, Cement Blocks (6"X8"X12"), Electrician Wage Rate, House Rent For Q-I	Bricks (New) 1st Class, Gas Chrg Up To 100 Cub Mmbtu, Gas Chrg All Over 500 Mmbtu, Gas Chrg Overall/ Combined, Gas Chrg Over 300 - 500 Mmbtu, Gas Chrg Over 200 - 300 Mmbtu, Gas Chrg Over 100 - 200 Mmbtu, Kerosene Oil
Furnishing & Household Equip. Maintenance etc	Washing Machine (Singer), Match Box (Small)	Bulb Philips 100-Watt, Tube Light Philips 40 Watt	Table Shesham Wood, Farshi Dari 12'X9' Av.Qlty, S. Steel Deghchi Medium Size, Gizer Large Size 30 Gallon, Air Cooler Super Asia	Robin Blue (35 Gms), Household Servant Female (Part Time), Electric Blubs "0" Watt, Towel(3'X2') Av. Qlty, Washing Soap 250 Gm, Hand Stitching Needle, Dinner Set Plastic 72 Pcs, Elect. Iron Philips, Chair Shesham Wood
Health	Amoxil Capsule 250 Mg., Betnesol Eye Drops, Dettol (Medium), Sancos Syrup (50 ML), Phenergan Syrup 120 ML	Lederplex Syrup, Ventolin Tab. 2Mg., Disprin Tab., Daonil Tab. 5 Mg., Renitec Tab. 5 Mg.	ECG Charges, Panadol Tab. Extra/Plain, Blood Test (Cp) Charges, Brufen Tabs 200-Mg., Ear Drops (Cardisporine)	Cac. 1000 Tab, Gripe-Water Woodward's, Saniplast (1 Putty), Galxos-D (450 Gm), O.R.S. (Nimcol), Cotton Bandage 2" - 4", Trisil Tab., Vicks Vaporub/ Balm, Glycerin Small Bottle, Sugar Test (Random/Fasting)
Transport		Motorcycle Honda CD-70, Car Suzuki Fare Maximum Within Suzuki 1000 CC, Minibus Fare City, Bus Fare Max (Within Max. Within City, Motor Cycle Hero 70 CC, Suzuki Fare Min.Within City	Photostat Paper 70 Gm, Pencil Goldfish/Deer, Paper Fool Scape (27"X17"), Fountain Pen Hero/Wings/China, Cinema A/C High Class	High Speed Diesel HSD, Platform Ticket, Bus Fare Outside City (A/C), Tyre Cycle, Petrol Super, Tyre Motor Cycle Without Tube, Car Tax For 800 CC To 1300 CC, Air Fare Economy Class., Tyre Puncture Charges
Communication	Mobile Set Nokia/Sony/Ericsson Av.Qlty, Mobile Cell Charges	Postal Envelope For Saudi Arabia, Fax Charges (Local), T.C.S. Ch. Min.Within Zone, U.M.S. Reg Charges Min.	Internet Charges, Telephone Set Av. Qlty	Postal Registration Charges
Recreation & Culture	English Book Class V1, English Book BA/B.Sc, TV License Fee Domestic, Daily "Nawa-E-Waqt", Daily "Jang", Daily "Dawn"	Cable Charges, T.V 20" Color China/Korea, English Book Class 1x Or X, Radio With C.Player National, Urdu Book Class V (T.B.Board), Maths Book Calss V (T.B.Board)	Photostat Paper 70 Gm, Pencil Goldfish/Deer, Paper Fool Scape (27"X17"), Fountain Pen Hero/Wings/China, Cinema A/C High Class	Weekly "Mag", Monthly "Naunehal Digest", Cinema Non-A/C High Class, Pakistan Studies Book BA/B.Sc, Weekly "Akhbar-E-Jahan", Tape Recorder Cassette (Blank), Exercise Book Lined 80/10
Education	Pvt Eng. College Fee (1st Year), Govt. College Fee 1st. Year	I.T. Tuition Fees, Govt. College Fee 4Th. Year	Pvt School Fee Eng. Med (Class-X), Coaching Charges For Class XI/ XII Science Group	Govt. Med. College Fee MBBS 1st Year, Govt. Eng. College Fee 1st Year, Pvt School Fee Eng. Med (Class-I), Pvt School Fee Eng. Med (Class-VI)
Restaurant & Hotels			Tea Prepared (Ordinary), Cooked Dal (Av. Hotel), Cooked Mutton (Av. Hotel)	Chicken Biryani Full/Double, Cooked Beef (Av. Hotel)
Miscellaneous	Lipstick S. Miss/Medora	Wrist Watch Ladies Citizen, Hair Color Bigen, Toothpowder Dentonic 90 Gms	Toothbrush Shield, Toothpaste MacLean's 70 Gms, Talc Powder Viceroy/ Black Cat	Toothpaste Med Size Colgate 70Gms, Blade Treet Ordinary (10), Toilet Soap Lux 95 Gms, Gel Medium Size, Toilet Soap Lifebuoy 140 Gms, Gold Tezabi 24 Ct, Artificial Jewellery Set

Table A5: City- wise CPI Inflation by Income Groups, January 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	7.5	1.3	6.1	1.7	9.2	1.6	8.0	1.5	6.8	1.7	9.4
2 Islamabad	1.8	7.6	2.1	7.7	1.4	7.6	2.0	8.0	2.2	7.4	1.7	8.7
3 Lahore	2.1	7.9	2.7	8.3	1.3	7.3	2.2	8.2	2.9	9.0	1.3	7.2
4 Gujranwala	2.5	11.1	3.0	11.3	1.7	10.9	2.5	11.3	3.1	11.7	1.9	11.0
5 Sialkot	2.2	5.3	2.6	4.9	1.6	5.9	2.3	5.9	2.8	5.5	1.6	6.3
6 Faisalabad	2.2	7.3	3.4	5.3	0.6	10.0	2.3	7.9	3.6	6.1	0.9	9.8
7 Multan	1.5	8.3	2.0	6.2	0.9	11.1	1.6	8.9	2.1	7.3	1.1	10.8
8 Sargodha	1.4	8.6	2.6	4.5	-0.1	13.9	1.4	9.2	2.8	5.0	0.1	13.8
9 Bahawalpur	1.9	10.9	2.2	8.5	1.6	13.9	2.1	11.3	2.4	9.3	1.7	13.5
10 Karachi	1.7	9.6	2.2	9.5	0.9	9.8	1.5	10.0	2.2	10.7	0.8	9.2
11 Hyderabad	0.8	7.1	0.8	6.1	0.9	8.5	1.0	7.7	0.9	6.8	1.0	8.8
12 Sukkur	0.8	7.6	0.9	7.7	0.7	7.6	0.9	8.1	1.0	8.6	0.8	7.5
13 Larkana	0.9	13.4	-0.5	9.7	2.7	18.4	1.4	14.8	-0.1	10.8	3.1	19.6
14 Peshawar	0.0	6.2	-0.5	4.1	0.5	8.8	0.1	6.7	-0.4	5.0	0.6	8.5
15 Bannu	0.6	7.3	-0.2	1.5	1.5	15.1	0.9	8.0	0.1	3.0	1.9	13.8
16 Quetta	1.1	5.5	0.3	2.3	2.3	10.1	1.3	6.4	0.4	3.4	2.3	10.0
17 Khuzdar	1.6	7.0	2.4	3.9	0.5	11.2	1.6	7.7	2.4	4.0	0.8	11.9
	Rs 12001-18000						Rs 18001-35000					
	General		Food		Non-Food		General		Food		Non-Food	
	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY
1 Rawalpindi	1.8	8.9	1.7	7.6	1.9	10.3	1.8	9.6	2.0	8.6	1.7	10.4
2 Islamabad	2.2	8.4	2.4	7.9	1.9	9.0	2.1	8.5	2.5	8.4	1.7	8.6
3 Lahore	2.2	8.9	2.9	9.7	1.5	8.0	2.2	8.9	3.0	10.6	1.4	7.4
4 Gujranwala	2.8	12.5	3.2	12.8	2.4	12.2	2.8	12.5	3.4	13.3	2.3	11.7
5 Sialkot	2.3	6.3	2.9	5.9	1.8	6.8	2.2	6.5	3.0	6.3	1.5	6.6
6 Faisalabad	2.4	8.4	3.6	6.7	1.2	10.1	2.2	8.6	3.6	7.1	1.0	9.8
7 Multan	1.7	9.6	2.2	8.1	1.2	11.1	1.9	9.9	2.7	9.3	1.2	10.5
8 Sargodha	1.6	10.2	3.0	5.8	0.4	14.5	1.9	10.7	3.4	7.0	0.7	13.8
9 Bahawalpur	2.3	12.2	2.7	9.8	2.0	14.5	2.3	12.3	3.2	10.5	1.7	13.9
10 Karachi	1.6	10.5	2.3	11.2	0.9	9.7	1.5	10.2	2.4	11.5	0.8	9.1
11 Hyderabad	1.0	8.5	0.9	7.4	1.1	9.7	1.0	8.8	1.0	8.1	1.1	9.5
12 Sukkur	0.9	8.7	0.9	9.3	0.9	8.0	0.8	8.9	0.7	9.7	0.9	8.2
13 Larkana	1.8	16.1	0.0	11.5	3.5	20.9	2.1	17.1	0.3	12.6	3.7	21.2
14 Peshawar	0.2	7.0	-0.4	4.7	0.7	9.3	0.2	7.6	-0.3	5.7	0.6	9.1
15 Bannu	1.0	8.6	0.2	3.5	1.8	13.9	1.2	8.9	0.4	4.8	1.8	12.5
16 Quetta	1.5	7.4	0.6	4.4	2.5	10.8	1.6	8.2	0.8	5.3	2.3	10.8
17 Khuzdar	1.6	8.8	2.5	5.1	0.8	12.7	1.7	8.7	2.8	5.5	0.8	11.5
	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	1.8	10.5	2.1	9.4	1.6	11.1	1.8	10.0	2.0	8.8	1.6	10.8
2 Islamabad	1.7	9.2	2.3	10.0	1.3	8.7	1.7	9.0	2.4	9.7	1.2	8.5
3 Lahore	2.0	9.0	3.4	12.9	1.3	7.0	2.1	8.8	3.1	11.2	1.3	7.1
4 Gujranwala	3.0	13.1	3.6	14.3	2.7	12.6	2.8	12.3	3.3	13.0	2.4	11.9
5 Sialkot	2.2	7.1	3.4	7.6	1.6	6.8	2.2	6.5	3.1	6.5	1.6	6.5
6 Faisalabad	2.0	10.7	3.8	8.6	1.1	11.8	2.2	9.0	3.6	7.0	1.2	10.4
7 Multan	1.7	10.7	2.8	10.9	1.2	10.6	1.7	9.9	2.5	9.0	1.2	10.5
8 Sargodha	2.2	13.1	3.9	9.3	1.5	14.9	1.8	10.7	3.2	6.6	0.9	13.5
9 Bahawalpur	2.1	12.6	3.5	11.3	1.4	13.3	2.1	11.9	2.8	9.9	1.7	13.4
10 Karachi	1.3	10.1	2.2	12.4	0.9	8.9	1.4	10.1	2.3	11.8	0.8	8.8
11 Hyderabad	1.1	9.9	1.5	9.6	0.9	10.1	1.0	8.8	1.1	8.0	1.0	9.5
12 Sukkur	0.6	9.2	0.2	9.9	0.7	8.9	0.8	8.6	0.7	9.3	0.9	8.2
13 Larkana	2.0	18.5	0.5	14.3	2.8	20.6	1.7	15.9	0.0	11.6	2.8	19.0
14 Peshawar	0.3	8.6	-0.1	7.2	0.5	9.4	0.2	7.7	-0.3	5.7	0.6	9.1
15 Bannu	1.1	10.6	0.7	6.1	1.4	12.8	1.0	8.7	0.2	3.8	1.5	12.2
16 Quetta	1.8	9.2	1.1	6.5	2.1	10.7	1.6	8.0	0.8	4.9	2.2	10.3
17 Khuzdar	1.4	11.1	2.2	7.2	1.0	13.1	1.6	8.1	2.4	4.6	1.0	10.7

Table A6: City- wise CPI Inflation (YoY) January, 2012							
	High inflation cities				Low inflation cities		
	General	Food	Non-food		General	Food	Non-food
Larkana	15.9	11.6	19.0	Mingora	10.0	8.1	11.4
Dera Mrd.Jamali	13.2	14.0	12.6	Rawalpindi	10.0	8.8	10.8
Gujranwala	12.3	13.0	11.9	Nawabshah	9.9	8.1	11.2
Rahim Yar Khan	12.0	11.2	12.6	Multan	9.9	9.0	10.5
Bahawalpur	11.9	9.9	13.4	D.I.Khan	9.8	8.4	10.9
Bahawalnagar	11.8	8.2	14.3	D.G. Khan	9.5	9.9	9.3
Loralai&Cantt	11.2	11.0	11.4	Jhang	9.3	6.3	11.5
Mithi	11.1	9.2	12.4	Mianwali	9.2	7.4	10.6
Sahiwal	11.0	7.5	13.5	Mardan	9.2	4.5	12.3
Muzaffargarh	10.9	11.1	10.7	Attock	9.1	8.5	9.6
Sargodha	10.7	6.6	13.5	Islamabad	9.0	9.7	8.5
Dadu	10.6	9.2	11.6	Jehlum	9.0	7.7	10.0
Mir Pur Khas	10.5	10.9	10.2	Faisalabad	9.0	7.0	10.4
Karachi	10.1	11.8	8.8	Wazirabad	9.0	8.7	9.2
Abbotabad	10.1	5.7	13.0	Lahore	8.8	11.2	7.1
				Hyderabad	8.8	8.0	9.5
				Bannu	8.7	3.8	12.2
				Sukkur	8.6	9.3	8.2
				Khuzdar	8.1	4.6	10.7
				Quetta	8.0	4.9	10.3
				Peshawar	7.7	5.7	9.1
				Vehari	7.7	6.0	9.0
				Sialkot	6.5	6.5	6.5
				Gawadar	5.1	3.7	6.2
				Turbat	4.9	3.2	6.0
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		
	Jan-11	Dec-11	Jan-12	Jan-11	Dec-11	Jan-12
<u>Up to Rs. 8000</u>						
General	1.3	-1.3	1.2	15.3	8.4	8.3
Food	1.3	-2.7	1.0	19.9	7.1	6.7
Non-food	1.3	0.5	1.5	9.7	10.2	10.4
<u>Rs. 8001- 12000</u>						
General	1.4	-1.2	1.3	15.0	9.0	8.9
Food	1.5	-2.6	1.2	20.0	8.0	7.6
Non-food	1.2	0.4	1.5	9.7	10.1	10.4
<u>Rs. 12001- 18000</u>						
General	1.4	-1.0	1.3	13.6	9.2	9.2
Food	1.6	-2.4	1.3	20.2	8.6	8.3
Non-food	1.1	0.4	1.3	7.4	9.8	10.0
<u>Rs. 18001- 35000</u>						
General	1.4	-0.9	1.6	15.2	9.5	9.9
Food	1.7	-2.3	1.5	20.2	9.3	9.1
Non-food	1.1	0.4	1.8	11.2	9.7	10.5
<u>Above Rs. 35000</u>						
General	1.3	-0.4	1.7	13.2	10.6	11.0
Food	1.9	-1.9	1.8	20.3	10.9	10.7
Non-food	1.0	0.4	1.7	9.9	10.4	11.1
<u>All income groups</u>						
General	1.2	-0.7	1.5	13.9	9.7	10.1
Food	1.7	-2.2	1.5	20.2	9.5	9.2
Non-food	0.8	0.4	1.6	9.7	9.9	10.7

Table A8: SPI Item-wise Price Movements

Sr.No.	Items	Unit	Prices	Percentage change	
			Jan-12	YoY	MoM
1	Wheat	10Kg.	274.3	1.0	0.3
2	Wheat Flour Bag	10Kg.	307.4	0.2	0.3
3	Rice Basmati Broken	Kg.	59.1	14.4	-1.0
4	Rice Irri-6/9	Kg.	45.4	15.8	0.8
5	Bread Plain Med. Size (340-400 Gm.)	Each	31.3	11.5	0.0
6	Beef	Kg.	253.5	16.4	0.6
7	Mutton	Kg.	485.0	16.7	1.1
8	Chicken Live (Farm)	Kg.	160.3	31.7	22.6
9	Milk Fresh	Litr	57.8	15.5	0.3
10	Curd	Kg.	67.6	16.6	0.4
11	Milk Powdered Nido	500G	245.0	22.5	0.0
12	Egg Hen (Farm)	Doz.	116.8	35.6	17.8
13	Mustard Oil	Kg.	179.4	9.7	0.5
14	Cooking Oil (Tin)	2.5Ltr	495.0	9.6	0.0
15	Veg. Ghee (Tin)	2.5Kg.	495.0	9.6	0.0
16	Veg. Ghee Loose	Kg.	161.5	-1.6	0.7
17	Bananas	Doz.	53.7	18.1	7.3
18	Masoor Pulse Washed	Kg.	98.8	-17.7	-3.0
19	Moong Pulse Washed	Kg.	120.9	-13.0	-3.2
20	Mash Pulse Washed	Kg.	143.0	-10.2	-1.6
21	Gram Pulse Washed	Kg.	70.9	-3.6	-0.7
22	Potatoes	Kg.	18.6	-3.9	-17.0
23	Onions	Kg.	43.4	9.1	16.3
24	Tomatoes	Kg.	49.4	-29.6	-18.4
25	Sugar	Kg.	51.7	-28.6	-5.8
26	Gur	Kg.	72.9	-15.4	-6.1
27	Salt Powdered Loose (Lahori)	Kg.	8.1	10.1	0.0
28	Red Chillies Powder Loose	Kg.	316.4	23.4	-0.7
29	Garlic	Kg.	93.0	-54.5	-3.6
30	Tea (Yellow Label 200 Gm.)	200Gm.	131.6	5.0	0.0
31	Cooked Beef Plate	Each	60.3	13.6	0.7
32	Cooked Dal Plate	Each	36.9	7.3	1.2
33	Tea Prepared (Sada)	Cup	14.3	7.1	1.1
34	Cigarettes K-2 (20'S)	20'S	28.7	5.2	0.0
35	Long Cloth (Coarse Latha)	Mtr.	105.0	-31.9	8.9
36	Shirting	Mtr.	108.3	25.1	0.2
37	Lawn	Mtr.	107.4	-30.4	3.7
38	Georgette (Voil Printed)	Mtr.	88.1	21.2	2.2
39	Sandal Gents Bata	Pair	499.0	0.0	0.0
40	Chappal Spong. Bata (Gents)	Pair	139.0	0.0	0.0
41	Sandal Ladies Bata	Pair	399.0	0.0	0.0
42	Electric Charges	Unit	1.9	0.0	0.0
43	Gas Charges	Mmbtu	142.6	29.4	14.0
44	Kerosene	Litr	103.2	23.3	0.4
45	Firewood	40Kg	454.2	24.6	3.0
46	Energy Savor 14 Watts	Each	139.9	13.3	0.0
47	Washing Soap (200-250 Gm.)	Cake	18.1	18.1	0.6
48	Match Box	Each	1.1	6.0	0.0
49	Petrol	Litr	90.6	20.1	1.8
50	Diesel	Litr	99.8	24.5	0.0
51	L.P.G.(11 Kg Cylinder.)	Each	1526.4	9.3	11.5
52	Tele. Local Call	Call	3.6	0.0	0.0
53	Bath Soap Lifebuoy (Standard)	Cake	30.0	25.1	0.1
Maximum				35.6	22.6
Median				9.6	0.1
Minimum				-54.5	-18.4

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

Table A10: Consumer Price Index Numbers by Major Groups and Selected Commodities				
Items and specification	Weights	Index		
		Jan-11	Dec-11	Jan-12
General	100.00	147.67	160.12	162.58
Food & Non-Alcoholic Beverages.	34.83	167.06	179.79	182.60
1 Wheat	0.35	161.02	161.39	161.69
2 Wheat Flour	4.16	164.80	165.72	166.51
3 Wheat Product	0.10	158.72	161.94	162.11
4 Besan	0.15	163.74	163.91	163.78
5 Rice	1.58	135.54	151.97	151.67
6 Cereals	0.16	168.59	187.52	188.73
7 Bakery & Confectionary	1.16	148.97	161.89	163.26
8 Nimco	0.46	161.59	178.46	179.01
9 Meat	2.43	176.59	204.89	205.83
10 Chicken	1.36	146.15	150.61	186.93
11 Fish	0.30	167.85	179.60	184.85
12 Milk Fresh	6.68	165.29	195.47	196.26
13 Milk Product	0.63	160.69	191.77	193.33
14 Milk Powder	0.11	138.67	161.37	162.65
15 Egg	0.46	185.83	196.47	232.34
16 Mustard Oil	0.10	140.37	153.30	154.05
17 Cooking Oil	1.75	134.20	145.49	145.70
18 Vegetable Ghee	2.07	148.77	155.28	155.25
19 Dry Fruits	0.25	174.37	195.24	194.07
20 Fresh Fruits	1.86	148.79	176.41	186.33
21 Pulse Masoor	0.27	171.44	152.48	151.48
22 Pulse Moong	0.23	266.73	246.18	240.61
23 Pulse Mash (Washed)	0.21	233.28	212.94	211.66
24 Pulse Gram	0.24	163.71	160.05	160.90
25 Gram Whole	0.16	163.65	199.93	202.60
26 Beans	0.03	164.39	178.55	179.18
27 Potatoes	0.48	139.11	150.55	125.21
28 Onion	0.54	252.40	239.95	257.03
29 Tomatoes	0.45	254.97	201.23	163.95
30 Fresh Vegetable	1.66	176.19	185.99	194.27
31 Sugar	1.04	264.63	198.14	186.97
32 Gur	0.02	266.03	240.72	231.81
33 Honey	0.04	191.28	205.26	212.31
34 Sweet Meet	0.25	171.84	194.84	196.16
35 Beverages	1.20	137.62	159.46	158.52
36 Jam, Tomato Ketchup & Pickle	0.25	151.63	170.93	170.55
37 Condiments	0.27	158.69	193.39	202.08
38 Spices	0.54	217.06	249.24	276.35
39 Tea	0.84	184.77	201.02	201.70
Alcoholic Beverages, Tobacco	1.41	151.35	161.68	161.68
40 Cigarette	1.39	151.53	161.50	161.50
41 Betel Leaves & Nuts	0.02	140.23	172.89	172.97
Clothing & Footwear	7.57	133.18	151.61	153.60
42 Cotton Cloth	1.73	128.42	149.68	149.71
43 Woolen Cloth	0.88	138.50	168.48	173.31
44 Ready Made Garment	0.97	130.20	150.19	151.38
45 Woolen Readymade Garments	0.40	136.03	146.26	154.64
46 Hosiery	0.51	137.93	162.36	164.94
47 Dopatta	0.44	132.17	159.86	163.57
48 Cleaning & Laundering	0.21	143.42	164.99	170.41

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

Items and specification	Weights	Index		
		Jan-11	Dec-11	Jan-12
49 Tailoring	0.88	154.97	178.74	180.44
50 Footwear	1.55	121.55	123.31	123.77
Housing, Water, Elect, Gas & Other Fuel	29.41	136.92	144.17	147.43
51 House Rent	21.81	125.62	131.37	133.31
52 Construction Input Item	0.56	156.54	186.35	187.50
53 Construction Wage Rate	0.33	139.75	153.46	155.90
54 Water Supply	0.50	118.21	128.32	129.32
55 Electricity	4.40	166.67	168.71	168.71
56 Gas	1.58	204.32	232.00	264.42
57 Kerosene Oil	0.01	190.09	239.70	239.68
58 Fire Wood Whole	0.23	165.69	202.66	205.48
Furnished H.Hold Equip. & Maint. Etc	4.21	135.56	160.35	162.82
59 Furniture	0.33	134.31	150.16	152.83
60 Household Textile	0.65	134.28	155.71	158.57
61 Household Equipment	0.59	136.88	148.58	149.60
62 Utensils	0.32	134.10	148.48	151.68
63 Plastic Products	0.25	146.55	164.46	165.86
64 Washing Soap & Detergent	0.79	147.67	176.15	177.47
65 Sewing Needle & Dry Cell	0.15	122.98	138.02	139.70
66 Household Servant	1.04	125.73	166.33	170.44
67 Marriage Hall Charges	0.08	144.67	170.33	171.66
Health	2.19	124.79	137.16	138.53
68 Drug Medicine	1.27	115.67	124.24	124.82
69 Medical Equipment	0.01	141.47	174.48	176.40
70 Doctor (MBBS) Clinic Fee	0.59	142.61	162.29	165.24
71 Medical Test	0.32	127.57	140.99	142.51
Transport	7.20	146.65	166.18	168.41
72 Motor Vehicle	0.66	134.41	141.05	142.31
73 Motor Vehicle Accessories	0.24	160.51	186.03	192.11
74 Motor Fuel	3.03	137.22	162.24	165.25
75 Mechanical Service	0.46	139.26	156.41	163.10
76 Motor Vehicle Tax	0.11	100.00	119.48	119.48
77 Transport Services	2.70	162.10	178.50	179.08
Communication	3.22	122.82	123.10	122.32
78 Postal Services	0.07	161.69	164.82	165.46
79 Communication & Apparatus	3.15	122.00	122.22	121.42
Recreation & Culture	2.02	134.61	141.43	141.98
80 Recreation & Culture	0.86	112.35	116.79	117.15
81 Text Books	0.57	158.92	164.41	164.41
82 News Papers	0.19	137.66	149.97	149.97
83 Stationery	0.40	146.66	157.89	159.91
Education	3.94	127.32	140.80	141.09
84 Education	3.94	127.32	140.80	141.09
Restaurants And Hotels	1.23	168.53	182.94	185.23
85 Ready Made Food	1.23	168.53	182.94	185.23
Miscellaneous Goods And Services	2.76	152.90	180.79	182.60
86 Personal Care	1.49	139.20	163.53	164.75
87 Cosmetics	0.39	126.57	141.04	141.75
88 Blades	0.03	130.81	159.76	160.44
89 Personal Equipments	0.84	190.00	230.29	233.66

Table A11: Wholesale Price Index Numbers by Major Groups and Selected Commodities			
Items and Specifications	Index		
	Jan-11	Dec-11	Jan-12
General	165.58	176.01	179.99
Agriculture Forestry & Fishery	188.37	178.32	180.98
1 Wheat	165.84	167.12	167.14
2 Maize	149.40	147.58	149.52
3 Rice	124.24	150.30	150.11
4 Sorghum/Jowar	203.89	185.14	183.37
5 Millet/Bajra	118.40	144.74	144.52
6 Vegetables	171.54	235.64	228.66
7 Fresh Fruits	110.08	127.26	127.25
8 Dry Fruits	165.72	187.65	187.31
9 Cotton Seeds	176.08	202.55	198.57
10 Other Oil Seeds	148.57	169.82	170.57
11 Edible Roots/ Potatoes	153.29	174.44	127.69
12 Stimulant And Spice Crops	227.66	187.38	184.13
13 Pulses	166.74	205.76	205.53
14 Sugar Crops	311.44	291.82	291.82
15 Fibre Crops	306.27	170.80	178.29
16 Unmanufactured Tobacco	157.77	167.91	167.91
17 Poultry	149.03	147.79	199.73
18 Milk From Bovine Animals	155.31	188.73	188.73
19 Eggs	181.02	201.26	246.45
20 Raw Animal Material/Wool	114.75	131.99	134.64
21 Hides And Fur Skins, Raw	104.64	133.44	135.35
22 Fuel Wood In Logs	148.66	188.09	190.28
23 Fishes Live Fresh Or Chilled	142.05	140.41	140.90
Ores/Minerals, Gas & Elect.	161.43	170.51	185.61
24 Coal Not Agglomerated	125.49	130.20	141.18
25 Natural Gas Liquefied	158.22	180.13	210.37
26 Salt & Pure Sodium Chloride	122.39	154.20	156.20
27 Electrical Energy	170.12	166.13	166.13
Food, Beverages, Tobacco, Textiles	169.07	170.36	172.47
28 Meat Of Animals	173.40	215.47	216.96
29 Vegetables & Fruit Juices	146.38	177.14	176.84
30 Dried Fruits & Nuts	172.07	201.89	201.73
31 Fruit Juices	128.50	155.01	155.01
32 Vegetable Oil Refined	126.97	150.85	150.74
33 Vegetable Ghee	116.64	138.76	139.02
34 Oil Cakes	147.62	151.98	147.65
35 Processed Liquid Milk	153.96	181.63	183.49
36 Milk And Cream In Solid Form	205.66	165.54	165.64
37 Ice Cream	136.87	154.15	153.30
38 Dairy Products N.E.C	135.01	182.91	186.79
39 Wheat Flour	149.49	153.41	153.41
40 Other Cereal Flour	142.87	143.79	143.85
41 Sugar Refined	249.93	204.30	194.56
42 Chocolate	99.72	100.00	100.26
43 Sugar Confectionary	102.28	100.40	100.40
44 Coffee And Tea	159.55	191.69	191.76
45 Spices	194.45	290.49	297.35
46 Other Food Products	234.71	318.59	319.57
47 Mineral Water	120.67	164.64	165.15
48 Beverages	119.80	133.04	133.61
49 Tobacco Products	178.22	166.13	166.13
50 Cotton Yarn	250.47	174.87	187.99
51 Nylon Yarn	187.92	176.23	181.01
52 Blended Yarn	201.98	191.22	184.74
53 Woven Fabrics	124.67	165.01	169.77
54 Cotton Fabrics	136.56	165.72	167.56
55 Other Fabrics	124.12	153.88	154.60
56 Silk And Rayon Fabrics	123.89	138.37	138.40

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

Items and Specifications	Index		
	Jan-11	Dec-11	Jan-12
57 Towels	139.76	178.07	178.07
58 Blankets	121.07	149.14	152.21
59 Bed Sheets	127.89	164.70	165.68
60 Quilts	129.58	147.05	147.05
61 Woolen Carpets	103.57	103.57	103.57
62 Synthetic Carpets	145.76	148.31	142.37
63 Hosiery Products	125.09	152.82	154.19
64 Ready Made Garments	114.02	126.24	126.53
65 Leather With Out Hairs	105.18	109.34	109.90
66 Other Leather N.E.C	110.66	120.85	120.85
67 Footwear's	101.48	101.48	101.48
Other Transportable Goods	151.59	192.97	196.36
68 Timber	125.69	135.73	138.08
69 Printing Paper	104.66	120.47	129.31
70 Hard Board	110.42	143.75	150.00
71 Coke	136.21	155.82	163.45
72 Motor Sprit	123.21	148.46	151.25
73 Diesel Oil	185.47	238.13	238.14
74 Kerosene Oil	189.08	237.92	237.92
75 Furnace Oil	148.58	197.56	209.64
76 Mobil Oil	147.50	171.42	171.60
77 Chemicals	125.04	146.14	146.30
78 Dying Materials	107.04	108.04	107.06
79 Fertilizers	170.97	262.61	269.32
80 Pesticides	131.12	165.03	165.65
81 Insecticides	128.57	130.07	128.31
82 Paints & Varnishes	150.25	180.34	182.02
83 Medicines	116.05	113.92	113.92
84 Soaps & Detergent	129.32	152.08	153.22
85 Auto Tyres	143.93	172.05	173.27
86 Plastic Products	128.22	179.97	179.60
87 Glass Sheets	154.34	171.03	171.03
88 Other Glass Articles	171.45	206.71	206.71
89 Ceramics And Sanitary	128.65	132.70	133.14
90 Bricks Blocks And Tiles	141.75	169.63	169.58
91 Cement	140.64	155.70	158.11
92 Bed Foams	114.00	125.50	127.00
93 Matches	111.65	120.39	119.42
Metal Product Machinery & Equip	127.33	153.46	154.15
94 Pig Iron	128.97	128.97	128.97
95 Steel Bars & Sheets	114.11	133.20	132.48
96 Pipe Fittings	129.16	140.49	140.52
97 Steel Products	123.56	157.56	157.51
98 Engines And Motors	105.28	109.07	109.07
99 Vacuum Pumps	111.45	115.39	115.39
100 Air Conditioners	143.24	163.59	163.59
101 Cultivators	170.96	184.66	184.66
102 Chuff Cutter	126.82	131.08	131.08
103 Tractors	147.29	180.89	180.89
104 Lathe Machines	140.74	147.51	147.51
105 Concrete Mixer	134.63	138.83	138.83
106 Refrige,Wash& Sew Mach, Iron,Fan	134.84	163.41	163.41
107 Electrical Wires	140.41	163.22	163.22
108 Lighting Equipments	111.32	142.85	142.85
109 Radio And Television	121.92	131.33	131.33
110 Motor Vehicles	139.95	154.47	157.53
111 Motor Cycles	116.74	121.72	123.29
112 Bicycles	137.32	167.39	169.33

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
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	166.95
	Feb	146.85	163.56	136.83	168.83	158.33	175.49	164.99
	Mar	148.91	167.10	138.01	174.41	162.92	181.70	166.80
	Apr	150.99	169.25	140.05	178.68	165.46	187.07	167.83
	May	151.33	168.76	140.88	176.97	167.15	183.20	167.97
	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

*: all groups combined

Table A13: International Commodity Prices/ Indices

	Oct-11	Nov-11	Dec-11	Jan-12
Energy				
Crude Oil (US\$ per barrel) *	99.9	105.4	104.3	106.9
IMF Energy Index (2005 = 100)	189.3	197.1	195.1	199.8
WB Energy Index (2005 = 100) @	181.8	189.8	187.6	192.4
Food				
Rice (\$/MT)	602.1	609.1	580.9	541.1
Wheat (\$/MT)	289.0	281.0	269.0	274.9
Sugar (US cent/ pound)	26.3	24.5	23.4	24.1
Palm Oil (\$/MT)	914.4	985.8	969.1	1,020.5
Soybean Oil (\$/MT)	1,126.8	1,118.3	1,103.0	1,131.8
Non-Food Non-Energy				
Cotton Outlook 'A' Index #	110.6	104.7	95.5	101.1
IMF Metal Price Index (2005 = 100)	200.9	193.3	192.1	202.0
Copper (\$/MT)	7,394.2	7,581.0	7,558.9	8,061.9
Aluminum (\$/MT)	2,180.7	2,080.0	2,024.4	2,151.3
Iron Ore (\$ cents/dry MT)	150.4	135.5	136.5	140.4
Tin (\$/MT)	21,868.6	21,291.7	19,386.9	21,547.7
Nickle (\$/MT)	19,039.1	17,873.0	18,246.0	19,908.6
Zinc (\$/MT)	1,871.4	1,935.3	1,911.2	1,989.2
Lead (\$/MT)	1,960.4	1,994.2	2,024.6	2,100.2
Uranium (\$/MT)	52.3	53.2	52.2	52.3
DAP (\$/MT)	630.9	611.3	575.0	530.0
Urea (\$/MT)	487.1	470.9	353.8	368.4

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	FY09	FY10	FY11	FY12
Jul	112.35	122.46	137.62	154.72
Aug	114.32	124.68	140.63	156.88
Sep	115.23	124.89	143.49	158.50
Oct	116.83	125.64	144.90	160.79
Nov	116.46	127.30	146.34	161.25
Dec	116.18	126.37	145.90	160.12
Jan	116.46	129.64	147.67	162.58
Feb	118.06	130.13	146.85	
Mar	118.49	131.75	148.91	
Apr	119.68	134.16	150.99	
May	119.60	134.34	151.33	
Jun	120.64	134.83	152.78	
Seasonally Adjusted Series				
Jul	112.01	122.08	137.21	154.27
Aug	113.65	123.91	139.73	155.85
Sep	114.64	124.19	142.63	157.51
Oct	115.78	124.47	143.48	159.16
Nov	115.85	126.62	145.54	160.34
Dec	116.91	127.20	146.89	161.24
Jan	116.62	129.82	147.86	162.79
Feb	118.64	130.79	147.63	
Mar	119.16	132.54	149.84	
Apr	119.88	134.39	151.24	
May	120.13	134.97	152.09	
Jun	121.25	135.53	153.57	

Table 15. CPI Food Data Series Original and Seasonally Adjusted

Original Series				
Period	FY09	FY10	FY11	FY12
Jul	117.57	130.97	149.33	174.80
Aug	120.91	134.95	156.70	177.32
Sep	122.41	135.20	163.96	180.16
Oct	125.92	135.98	163.91	183.07
Nov	123.45	138.87	166.59	183.26
Dec	122.15	135.81	163.69	179.21
Jan	119.80	138.54	166.52	181.90
Feb	123.01	139.06	163.56	
Mar	124.08	141.71	167.10	
Apr	125.91	145.24	169.25	
May	125.42	145.69	168.77	
Jun	126.77	146.63	169.88	
Seasonally Adjusted Series				
Jul	117.18	130.47	148.63	173.89
Aug	119.36	133.12	154.55	174.83
Sep	120.63	132.99	161.09	176.92
Oct	123.72	133.41	160.63	179.33
Nov	121.53	136.58	163.66	179.93
Dec	123.30	137.12	165.32	181.02
Jan	120.26	139.13	167.34	182.87
Feb	125.02	141.60	166.70	
Mar	125.66	143.50	169.20	
Apr	126.50	145.90	169.95	
May	126.64	147.33	170.85	
Jun	128.26	148.56	172.29	

Table 16: CPI Monthly & Average Seasonal Factors

Period	FY09	FY10	FY11	FY12	Average
Jul	100.31	100.31	100.30	100.29	100.30
Aug	100.59	100.63	100.65	100.66	100.63
Sep	100.52	100.57	100.61	100.63	100.58
Oct	100.90	100.94	100.99	101.03	100.97
Nov	100.53	100.54	100.55	100.57	100.54
Dec	99.37	99.35	99.33	99.31	99.34
Jan	99.86	99.87	99.87	99.87	99.87
Feb	99.52	99.50	99.48		99.50
Mar	99.44	99.41	99.38		99.41
Apr	99.83	99.83	99.84		99.83
May	99.56	99.54	99.50		99.53
Jun	99.50	99.49	99.48		99.49

Table 17: CPI Food Monthly & Average Seasonal Factors

Period	FY09	FY10	FY11	FY12	Average
Jul	100.33	100.39	100.47	100.53	100.43
Aug	101.30	101.37	101.39	101.43	101.37
Sep	101.48	101.66	101.78	101.83	101.69
Oct	101.78	101.93	102.04	102.09	101.96
Nov	101.58	101.68	101.79	101.85	101.72
Dec	99.07	99.04	99.01	99.00	99.03
Jan	99.62	99.58	99.51	99.47	99.54
Feb	98.39	98.21	98.12		98.24
Mar	98.74	98.75	98.76		98.75
Apr	99.53	99.55	99.59		99.56
May	99.04	98.89	98.79		98.90
Jun	98.84	98.70	98.60		98.71

Table 18: CPI Month-on-Month Change Original & Seasonally Adjusted				
Original Series				
Period	FY09	FY10	FY11	FY12
Jul		1.51	2.07	1.27
Aug	1.75	1.81	2.19	1.40
Sep	0.80	0.17	2.03	1.03
Oct	1.39	0.60	0.98	1.44
Nov	-0.32	1.32	0.99	0.29
Dec	-0.24	-0.73	-0.30	-0.70
Jan	0.24	2.59	1.21	1.54
Feb	1.37	0.38	-0.56	
Mar	0.36	1.24	1.40	
Apr	1.00	1.83	1.40	
May	-0.07	0.13	0.23	
Jun	0.87	0.36	0.96	
Seasonally Adjusted Series				
Jul		0.68	1.24	0.46
Aug	1.47	1.49	1.83	1.02
Sep	0.87	0.23	2.07	1.07
Oct	1.00	0.23	0.60	1.05
Nov	0.06	1.73	1.44	0.74
Dec	0.92	0.46	0.92	0.56
Jan	-0.25	2.06	0.66	0.96
Feb	1.73	0.75	-0.16	
Mar	0.44	1.34	1.50	
Apr	0.61	1.40	0.94	
May	0.20	0.43	0.56	
Jun	0.94	0.42	0.98	

Table 19: CPI Food Month-on-Month Change Original & Seasonally Adjusted				
Original Series				
Period	FY09	FY10	FY11	FY12
Jul		3.32	1.84	2.90
Aug	2.84	3.04	4.93	1.44
Sep	1.25	0.19	4.64	1.60
Oct	2.86	0.58	-0.04	1.61
Nov	-1.96	2.12	1.64	0.11
Dec	-1.06	-2.20	-1.74	-2.21
Jan	-1.92	2.01	1.73	1.50
Feb	2.68	0.38	-1.77	
Mar	0.87	1.91	2.16	
Apr	1.47	2.49	1.28	
May	-0.39	0.31	-0.28	
Jun	1.07	0.65	0.66	
Seasonally Adjusted Series				
Jul		1.72	0.05	0.92
Aug	1.86	2.04	3.99	0.54
Sep	1.06	-0.10	4.23	1.20
Oct	2.56	0.32	-0.29	1.36
Nov	-1.77	2.38	1.89	0.34
Dec	1.45	0.40	1.01	0.61
Jan	-2.47	1.46	1.22	1.02
Feb	3.96	1.77	-0.39	
Mar	0.51	1.35	1.50	
Apr	0.67	1.67	0.45	
May	0.11	0.98	0.52	
Jun	1.28	0.84	0.85	

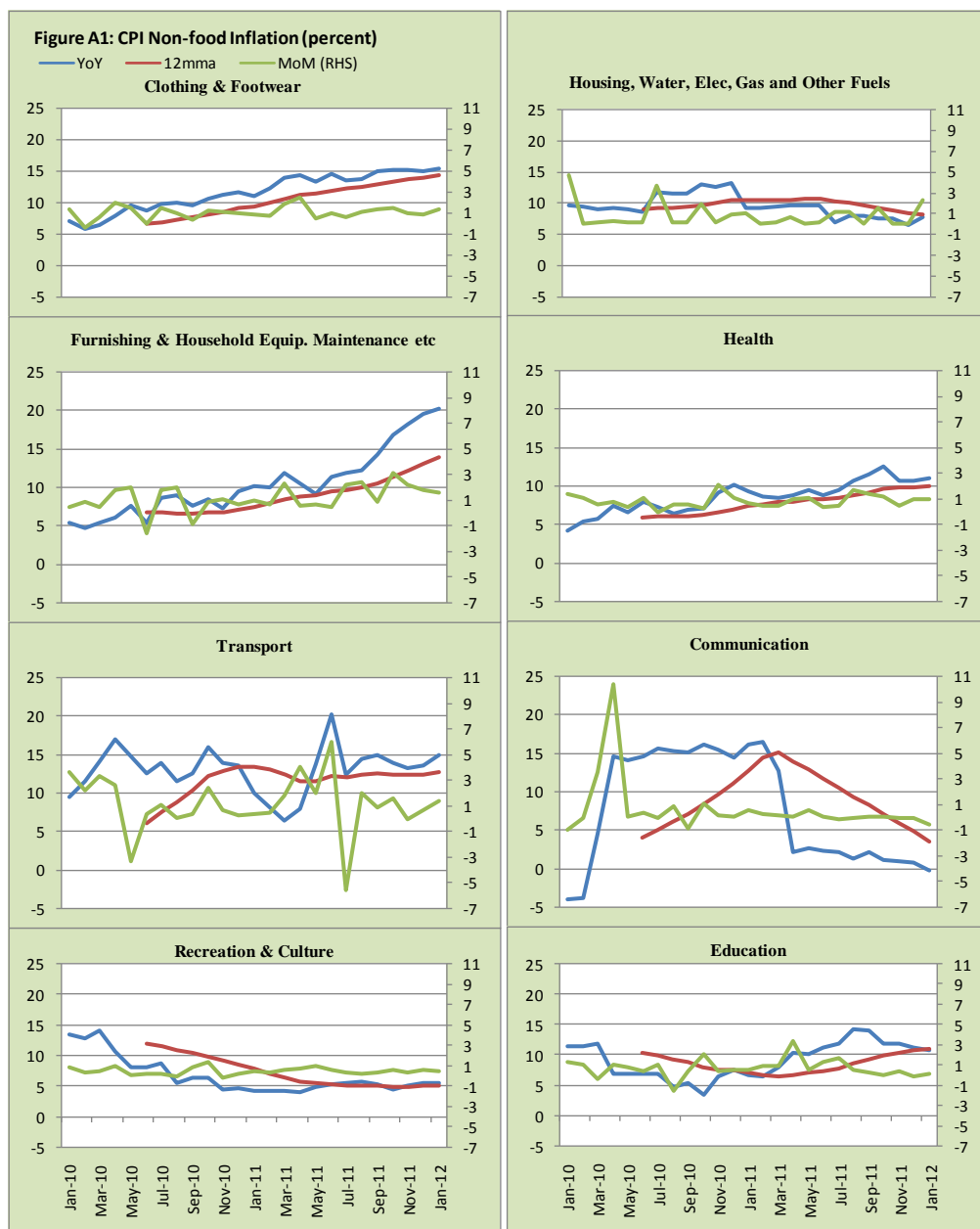


Figure A2: Frequency Distribution of Price Changes of CPI Items, January 2012

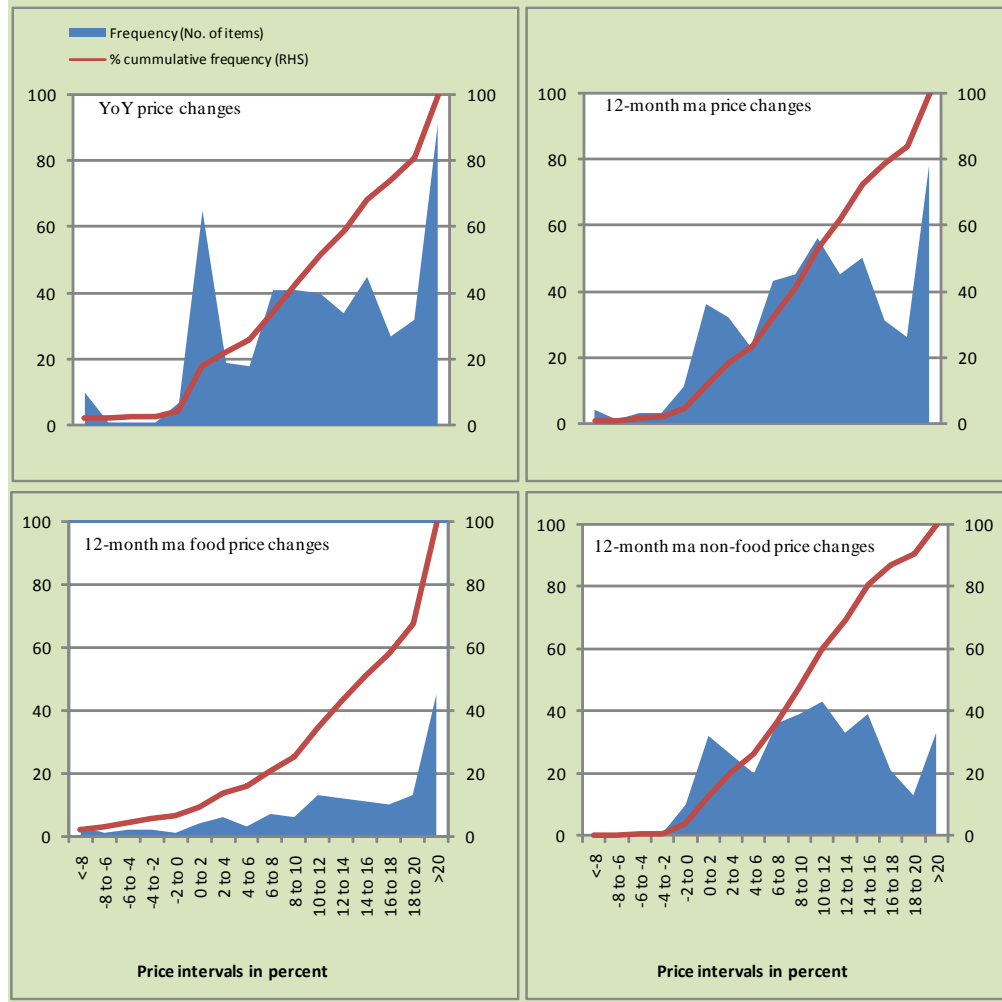
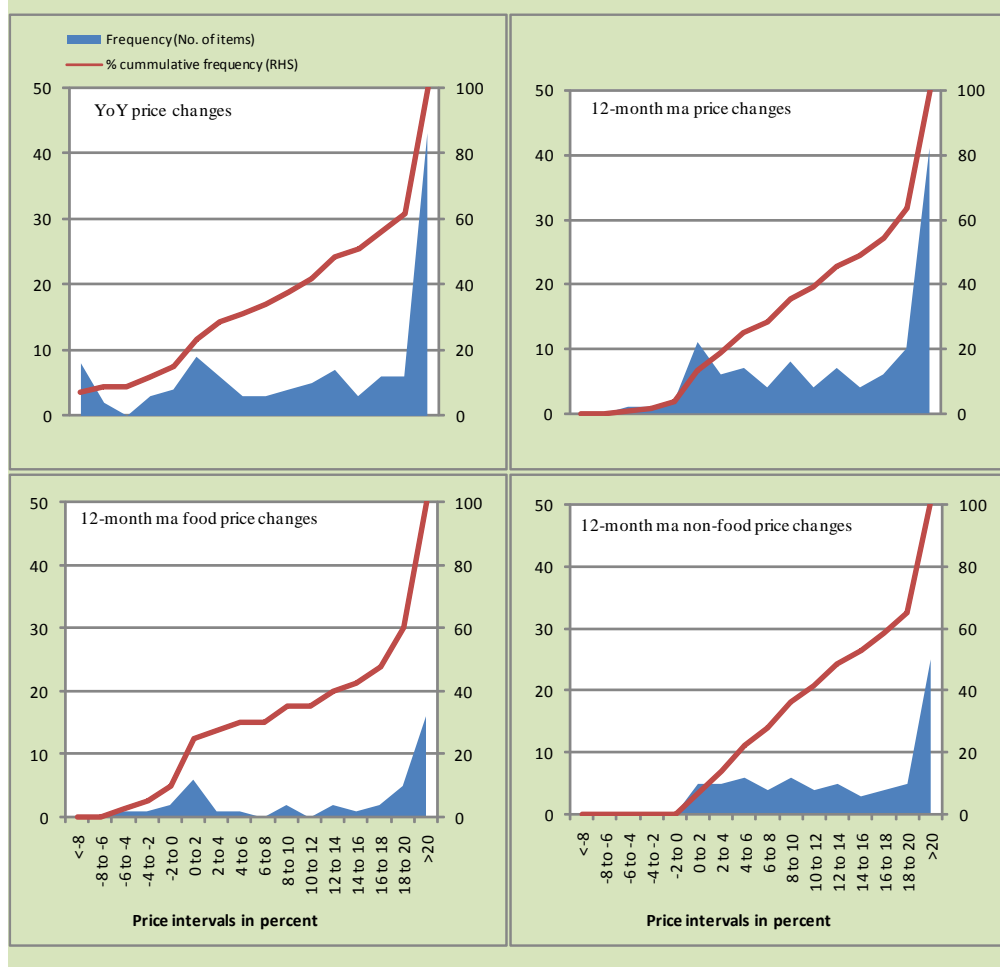
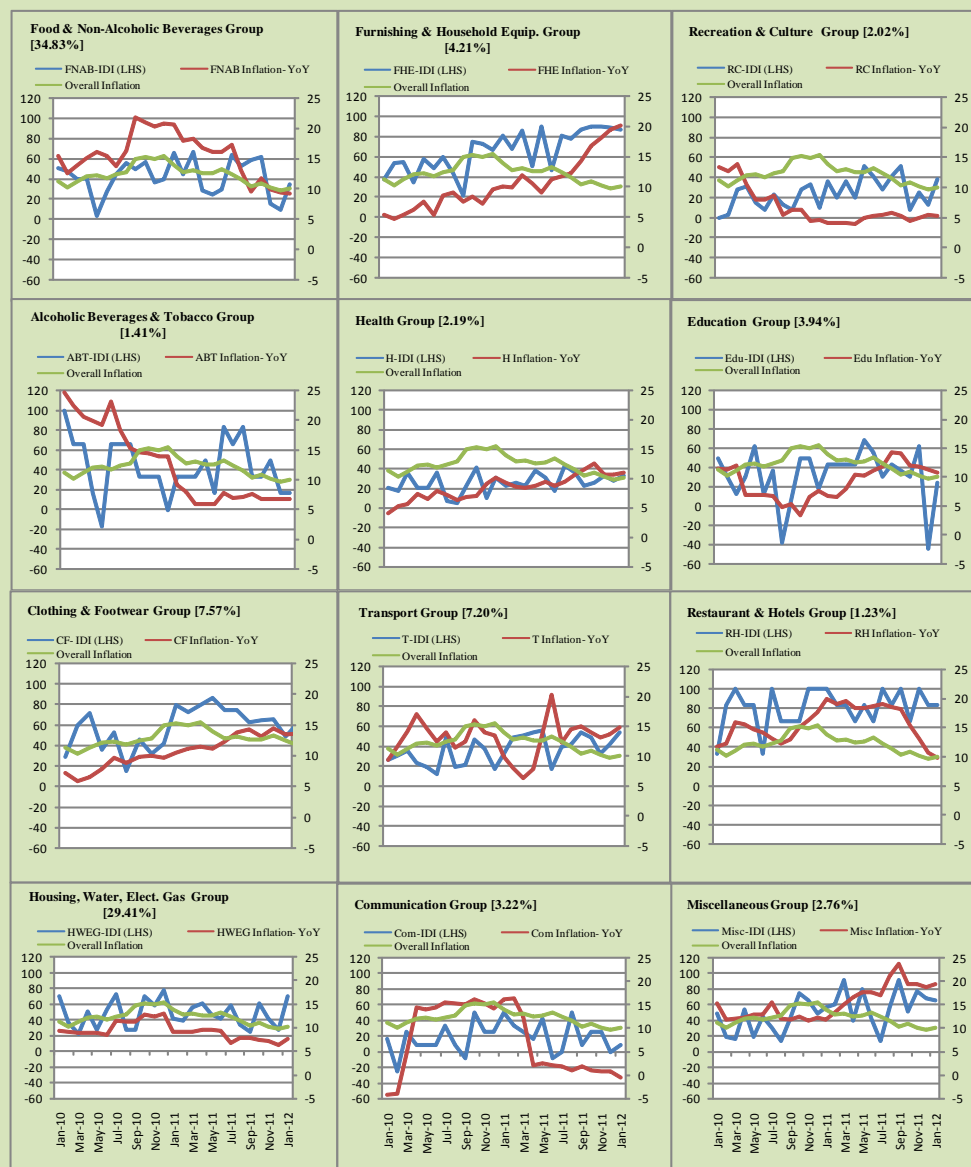


Figure A3: Frequency Distribution of Price Changes of WPI Commodities, January 2012



Inflation Monitor, January 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 commodities; SPI contains 53 commodities.
4. YoY inflation is the percent change of an index in a given month over the index in the same month of the last year. It is computed as follows:

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

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

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

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

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

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

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

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

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

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

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

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

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

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