

Inflation Monitor

September 2011



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 Federal Bureau of Statistics, Pakistan for domestic inflation analysis
- Retrieved from IMF & World Bank websites for global inflation analysis

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

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Review

Inflation in Brief

1. Headline CPI inflation on revised base (2007-08 = 100) is recorded at 10.5 percent on year-on-year basis in September 2011 as compared to 11.6 percent in the previous month and 14.9 percent in the corresponding month of last year.
2. CPI inflation on month-on-month basis decreased to 1.0 percent in September 2011 as compared to 1.4 percent in the previous month and 2.0 percent in September 2010. Seasonally adjusted month-on-month CPI inflation comes to 1.0 percent in September 2011 as compared to 0.9 percent in previous month.
3. Core inflation measured by 20% weighted trimmed mean CPI (Core Trim) decreased to 11.7 percent in September 2011 (YoY) as compared to 12.4 percent in August 2011 and 11.7 percent in September 2010.
4. Core Trim inflation was 0.6 percent on month-on-month basis in September 2011 as compared with 0.7 percent in August 2011 and September 2010.
5. Core inflation measured by non-food non-energy CPI (Core NFNE) was recorded at 10.6 percent in September 2011 (YoY) as compared with 10.1 percent a month earlier and 8.3 percent in September 2010.
6. Core NFNE inflation on month-on-month basis decreased to 0.7 percent in September 2011 as compared to 0.8 percent a month earlier. Core NFNE was 0.2 percent in September 2010.
7. WPI inflation on year-on-year basis decreased to 17.0 percent in September 2011 compared with 18.7 percent a month earlier. During September 2010, WPI inflation was recorded at 18.6%.

8. WPI inflation on month-on-month basis decreased to 0.2 percent in September 2011 as compared to 0.6 percent a month earlier and 1.7 percent in September 2010.
9. SPI inflation on year-on-year basis decreased to 8.7 percent in September 2011 compared with 11.9 percent a month earlier and 20.1 percent in September 2010.
10. SPI inflation month-on-month basis decreased to 0.7 percent in September 2011 compared with 1.4 percent a month earlier and 3.6 percent in September 2010.

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				
Sep-10	14.9	2.0	21.3	4.6	10.5	0.2	8.3	0.2	11.7	0.7	18.6	1.7	20.1	3.6
Oct-10	15.3	1.0	20.5	0.0	11.8	1.7	9.5	1.6	12.7	1.6	19.5	1.7	20.9	1.2
Nov-10	15.0	1.0	20.0	1.6	11.5	0.5	9.4	0.6	12.8	0.8	20.3	2.5	22.3	2.8
Dec-10	15.5	-0.3	20.5	-1.7	12.0	0.8	9.8	0.7	13.4	0.8	22.5	2.0	21.6	-0.6
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

* NFNE is Non-food non-energy

** SPI for all income groups combined

Fig 1.1: Summary of Price Inflation

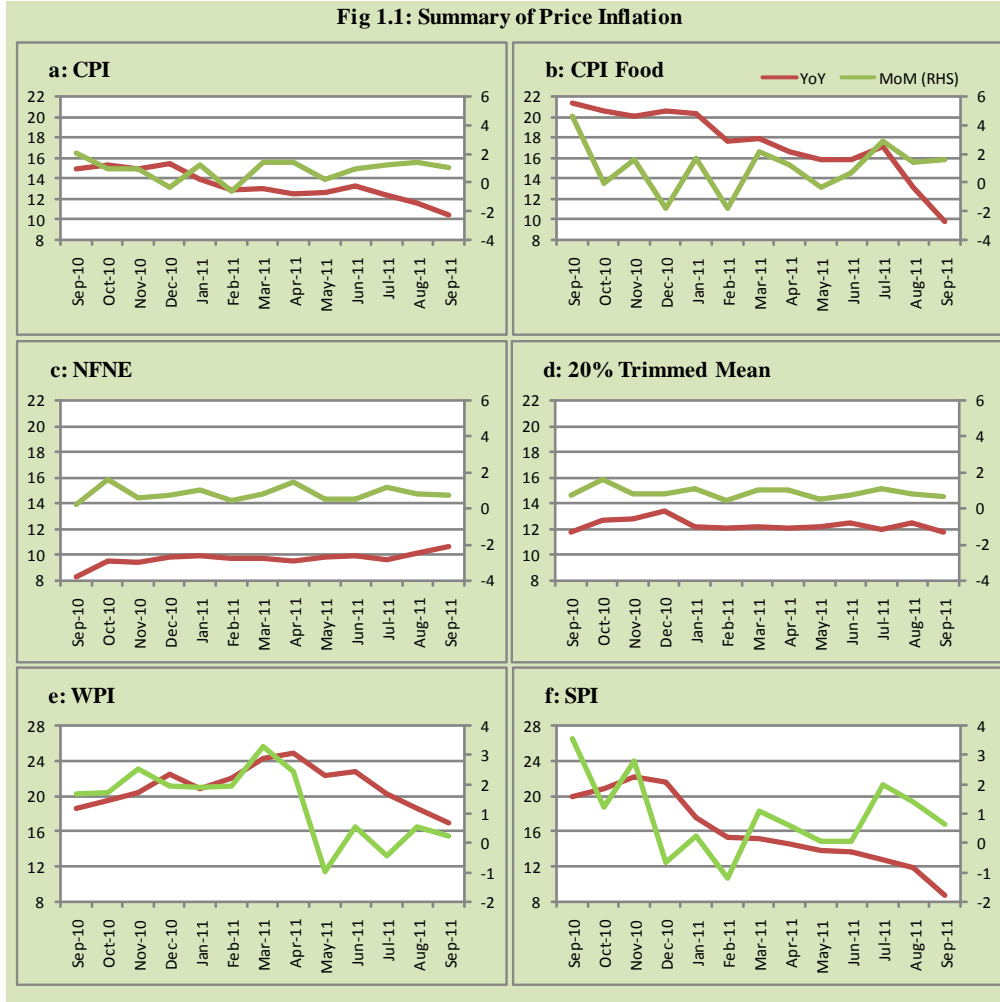


Fig 1.2: Movements in Price Indices (percent)

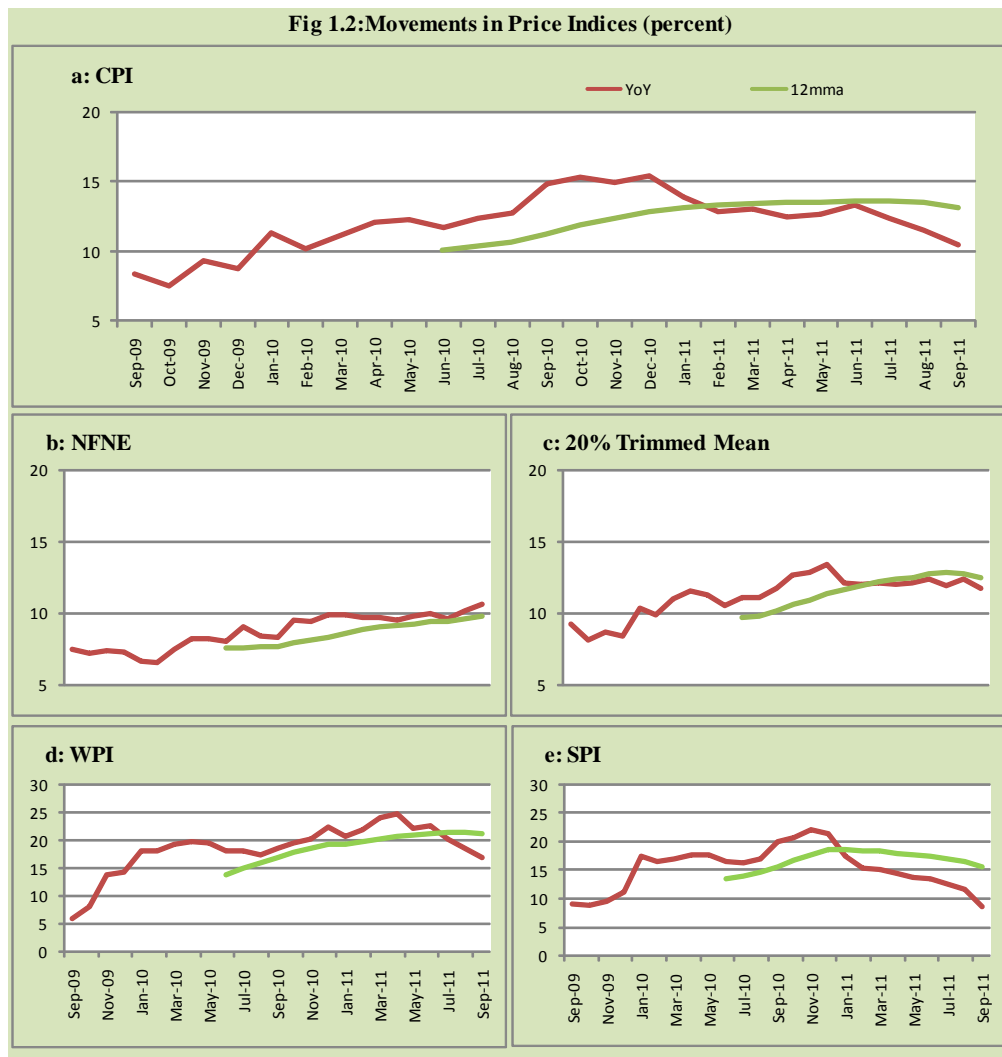


Fig 1.3: Movements in Price Indices -MoM (percent)

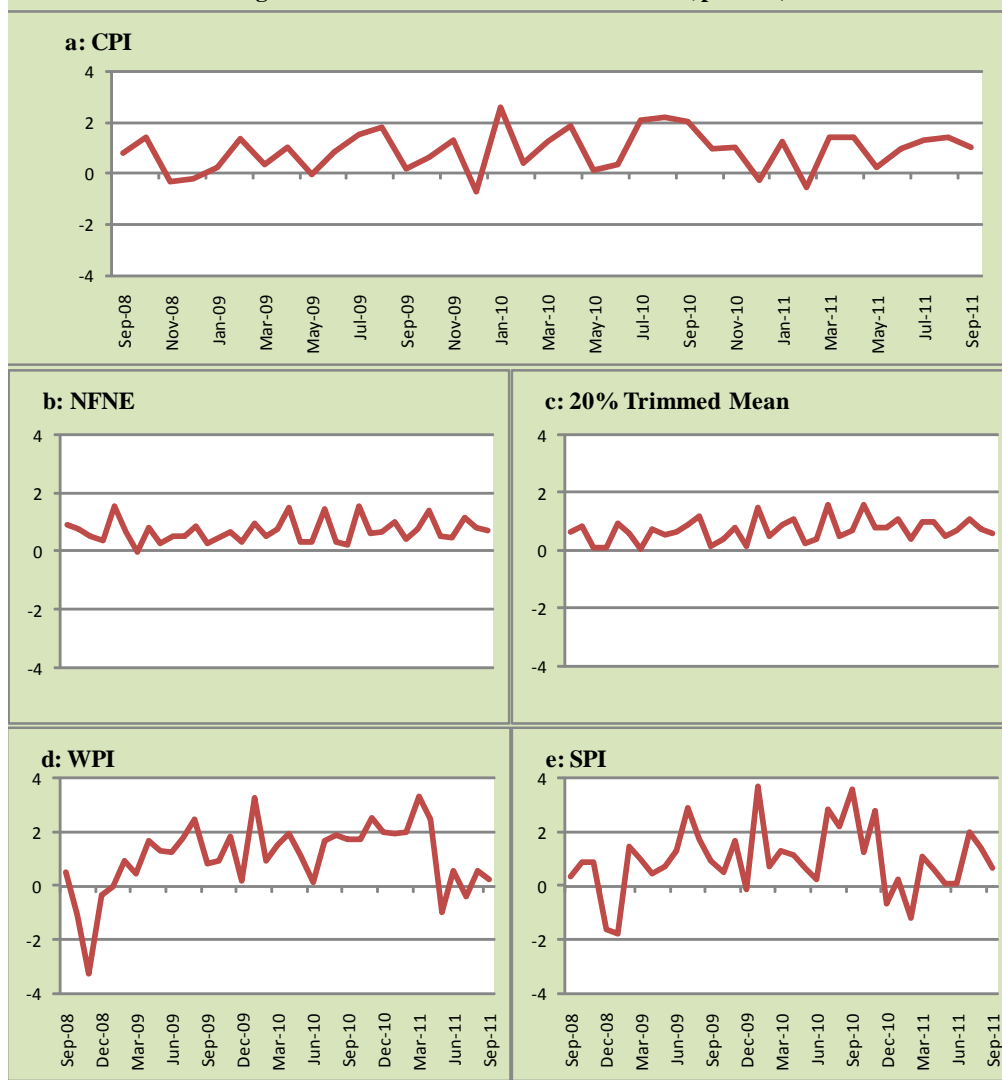
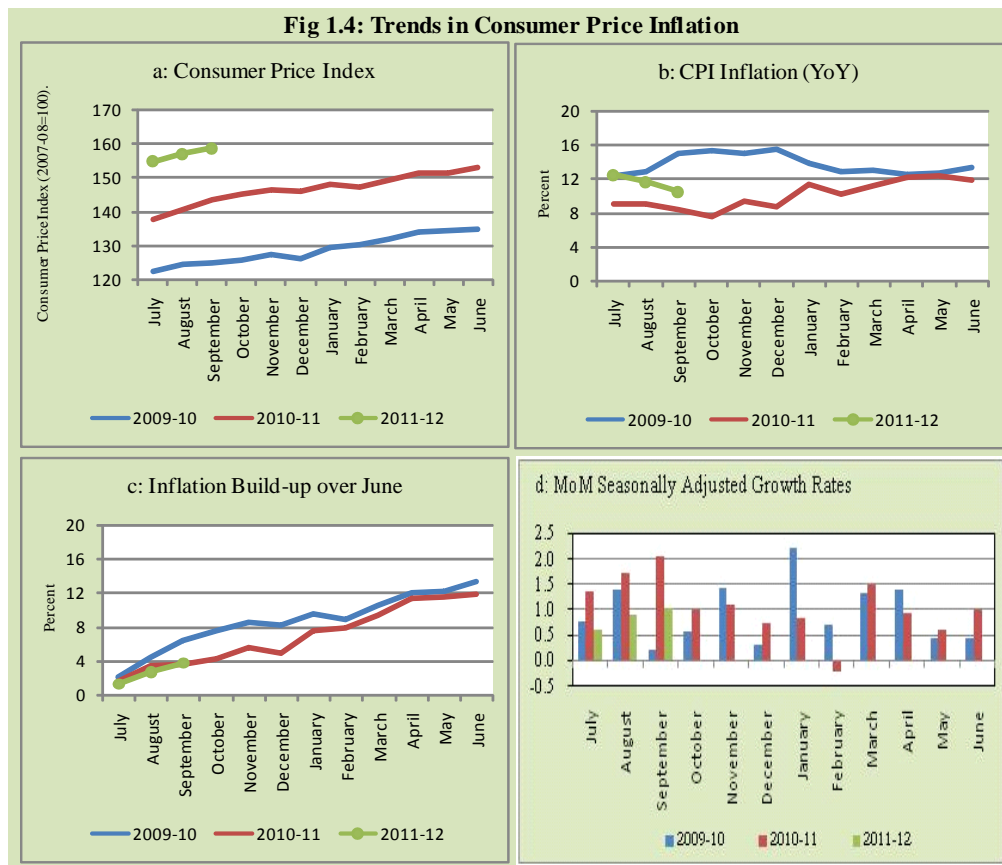


Fig 1.4: Trends in Consumer Price Inflation



2. City wise Inflation

Inflation in major cities of Pakistan showed mixed trend. The inflation in Karachi, Lahore and Peshawar was lower than the overall inflation while inflation in the federal capital and Quetta was higher in September 2011. Among these five cities, the highest inflation was observed in Quetta (Table A6).

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

	Sep-10		Aug-11		Sep-11	
	MoM	YoY	MoM	YoY	MoM	YoY
Overall CPI	2.0	14.9	1.4	11.6	1.0	10.5
Islamabad	1.8	12.3	1.2	12.2	0.5	10.8
Karachi	1.6	13.8	1.5	10.7	1.0	10.1
Lahore	2.0	12.2	1.0	9.0	1.0	8.0
Peshawar	2.9	15.3	0.9	10.4	0.7	8.0
Quetta	0.7	14.1	1.6	12.0	0.0	11.2

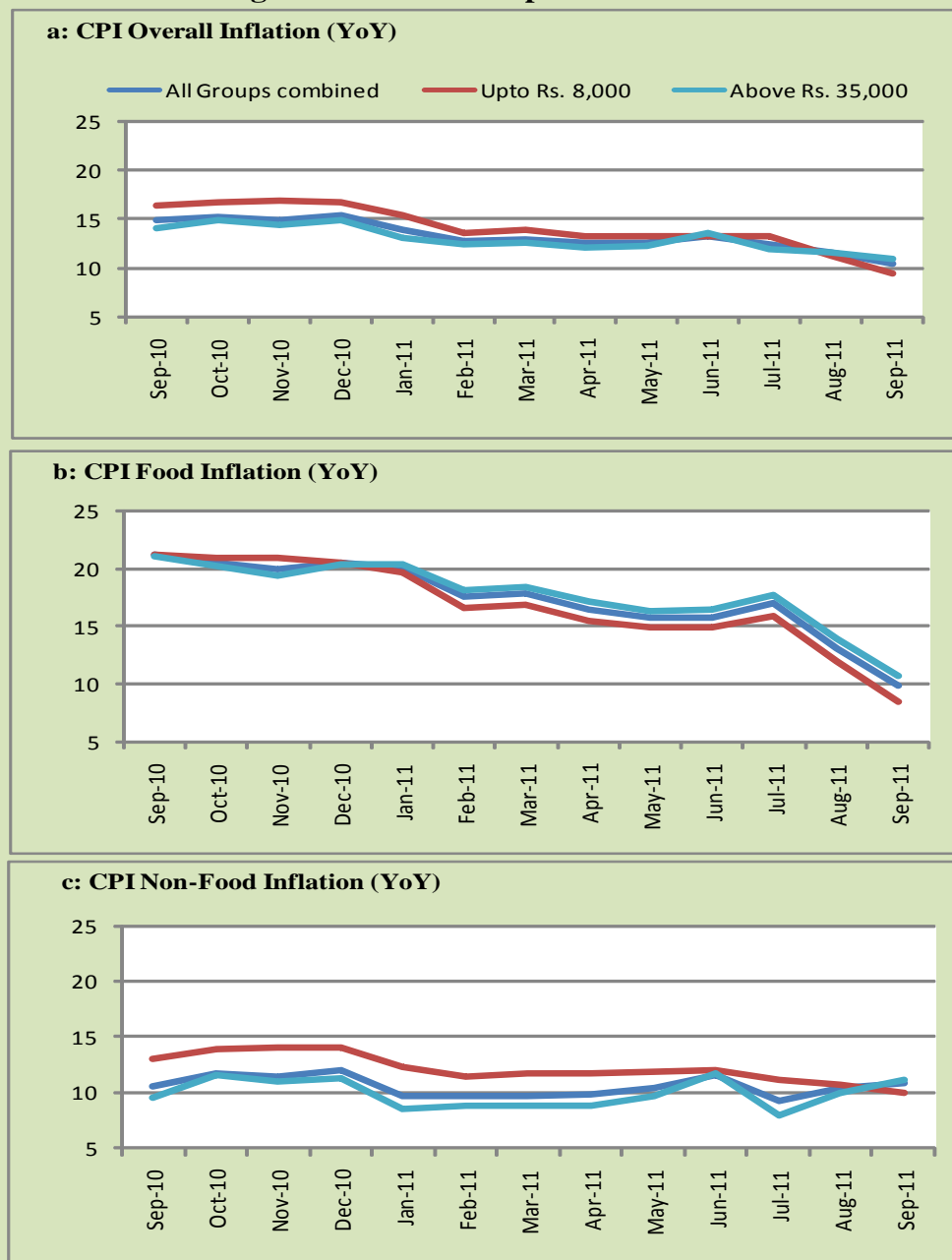
3. Income Group wise Inflation

Income group- wise data showed that income group above Rs. 35,000 has highest inflation than the overall inflation in CPI basket in September 2011 for general, food and non-food groups. The lowest income group (Up to Rs. 8, 000) has the lowest inflation in general, food and non-food groups in September (Table A7).

Table 3.1 Income Group- wise Inflation (YoY)

Income Groups	General			Food			Non-food		
	Sep-10	Aug-11	Sep-11	Sep-10	Aug-11	Sep-11	Sep-10	Aug-11	Sep-11
All Groups combined	14.9	11.6	10.5	21.3	13.2	9.9	10.5	10.4	10.9
Up to Rs. 8,000	16.4	11.3	9.4	21.3	12.0	8.5	13.1	10.8	10.0
Rs. 8,001- 12,000	16.1	11.5	9.8	21.3	12.5	9.1	12.6	10.8	10.4
Rs. 12,001- 18,000	14.6	11.5	10.0	21.4	12.8	9.4	10.1	10.6	10.4
Rs. 18,001- 35,000	16.3	11.4	10.2	21.5	13.0	9.8	12.8	10.3	10.5
Above Rs. 35,000	14.2	11.6	11.0	21.1	13.9	10.7	9.5	10.0	11.2

Fig 3.1: Income Group- wise Inflation



4. Weighted Contribution

The weighted contribution of food group decreased to 40.43 percent during September 2011 from 47.56 percent in August 2011 and 57.95 percent in September 2010.

The weighted contribution of non-food group showed increase to 59.57 percent in September 2011 from 52.44 percent in August 2011.

Table 4.1 Weighted Contribution to CPI Inflation (YoY)						
Period	Food	Clothing & Footwear	Housing, Water, Elect, Gas & Other Fuel	Transport	Education	Others
Sep-10	57.95	4.55	21.25	6.10	1.32	8.82
Oct-10	54.33	4.82	23.40	7.45	0.86	9.15
Nov-10	54.57	5.24	22.97	6.76	1.60	8.87
Dec-10	53.50	5.30	23.66	6.41	1.81	9.32
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

5. Inflation Diffusion Index

Table 5.1 Inflation Diffusion Index - based on MoM change

	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11
General	31.2	59.2	48.5	45.9	57.8	49.3	61.7	42.7	52.8	38.2	51.3	53.4	56.1
Food & Non-Alcoholic Beverages	48.7	55.7	36.4	39.3	64.9	44.2	66.1	27.9	24.3	28.9	63.2	51.7	57.8
Alcoholic Beverages & Tobacco	33.3	33.3	33.3	0.0	33.3	33.3	33.3	50.0	16.7	83.3	66.7	83.3	33.3
Clothing & Footwear	42.4	79.7	72.9	79.7	86.4	74.6	74.6	62.7	64.4	66.1	49.2	62.7	54.2
Housing, Water, Elect, Gas & other Fuels	27.8	69.4	58.3	77.8	41.7	38.9	55.6	61.1	47.2	41.7	58.3	33.3	25.0
Furnishing & Household Equip. Maintenance etc	21.7	75.4	72.5	66.7	81.2	68.1	85.5	50.7	89.9	46.4	81.2	78.3	87.0
Health	23.1	41.0	10.3	30.8	23.1	25.6	23.1	38.5	30.8	17.9	43.6	35.9	23.1
Transport	20.9	46.5	37.2	16.3	32.6	48.8	51.2	53.5	55.8	16.3	39.5	41.9	53.5
Communication	-8.3	50.0	25.0	25.0	50.0	33.3	25.0	16.7	41.7	-8.3	0.0	50.0	8.3
Recreation & Culture	7.7	28.2	33.3	10.3	35.9	20.5	35.9	20.5	51.3	41.0	28.2	41.0	51.3
Education	6.3	50.0	50.0	18.8	43.8	43.8	43.8	43.8	68.8	56.3	31.3	43.8	37.5
Restaurant & Hotels	66.7	66.7	100	100	100	83.3	83.3	66.7	83.3	66.7	100	83.3	100.0
Miscellaneous	42.9	74.3	65.7	48.6	57.1	60.0	91.4	40.0	80.0	42.9	14.3	57.1	91.4
NFNE	26.0	59.5	53.3	47.6	56.5	52.4	60.1	47.3	63.3	40.8	48.2	53.8	55.6

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	Sep-10		Aug-11		Sep-11	
			YoY	MoM	YoY	MoM	YoY	MoM
1	Wheat	10 Kg.	0.48	5.29	4.60	0.50	1.27	1.93
2	Wheat Flour Bag	10 Kg.	2.24	11.59	10.80	-0.75	2.05	2.77
3	Rice Basmati Sup. Qlty.	Kg.	3.78	1.65	13.01	1.09	12.14	0.87
4	Pulse Masoor (Washed)	Kg.	-1.91	0.40	-7.48	-0.46	-8.63	-0.85
5	Pulse Moong (Washed)	Kg.	140.20	10.59	16.89	-0.38	3.47	-2.11
6	Pulse Mash (Washed)	Kg.	59.66	1.99	-9.24	-1.47	-12.16	-1.29
7	Pulse Gram	Kg.	37.05	3.68	8.99	1.44	4.66	-0.44
8	Vegetable Ghee (Loose)	Kg.	19.26	1.54	30.12	0.43	28.86	0.55
9	Sugar Refined	Kg.	69.83	11.99	2.06	5.53	-7.18	1.85
10	Milk Fresh (Unboiled)	Ltr.	16.27	0.49	21.34	1.16	20.68	-0.05
11	Curd	Kg.	15.11	0.48	21.40	1.95	21.92	0.91
12	Beef With Bone Av. Qlty.	Kg	25.29	3.25	20.76	2.34	19.87	2.48
13	Mutton Av. Qlty.	Kg	31.00	1.72	22.77	1.45	23.72	2.51
14	Chicken Farm Broiler (Live)	Kg	23.74	15.87	18.76	6.15	-6.26	-8.54
15	Eggs Farm	Doz	16.66	0.19	6.79	1.20	13.77	6.74
16	Potatoes	Kg	37.35	9.16	-10.13	-1.54	-16.65	1.24
17	Onion	Kg	120.60	83.04	-27.90	32.11	-44.84	40.02
18	Tomatoes	Kg	59.45	17.65	-43.27	-19.36	-44.23	15.66
19	Ginger	Kg	73.78	6.35	-23.63	-0.87	-30.32	-2.96
20	Garlic	Kg	99.90	1.09	-29.71	-7.53	-37.73	-10.46

7. Global Commodity Prices

Table 7.1 Changes in Major Global Indices (percent)

Item/ Group	Sep-10		Aug-11		Sep-11	
	YoY	MoM	YoY	MoM	YoY	MoM
Overall	17.6	1.3	30.1	-4.5	27.5	-0.8
Food	18.1	2.2	19.9	0.8	13.5	-3.3
Metals	32.9	3.7	34.7	-3.9	25.1	-3.7
Energy	14.1	0.4	33.7	-5.9	33.7	0.4
Agricultural	27.7	3.4	20.6	-6.2	16.5	-0.1
Cotton	63.5	15.9	26.3	-23.6	11.4	2.2

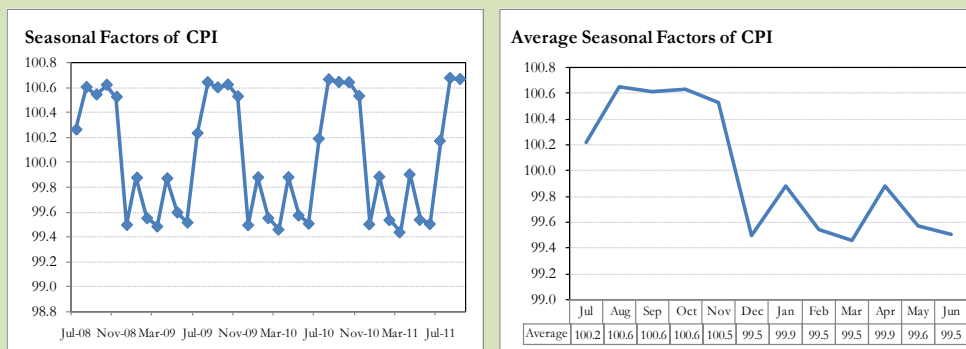
8. Seasonal Adjustment in CPI Index

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 September 2011 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 15.

Fig. 8.2 Seasonal Plots of CPI Index

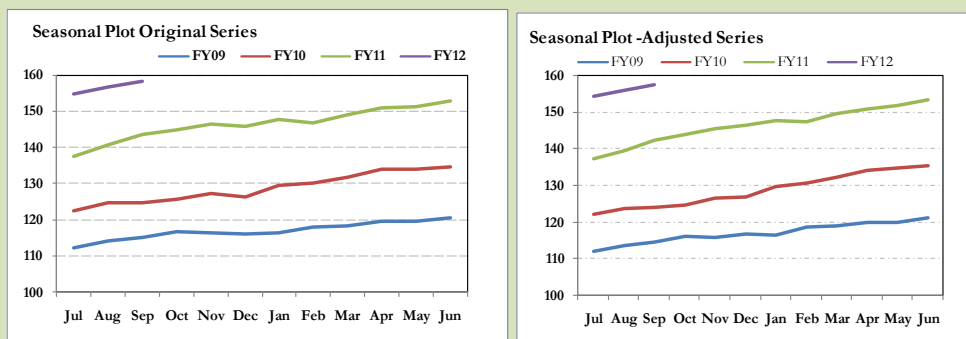


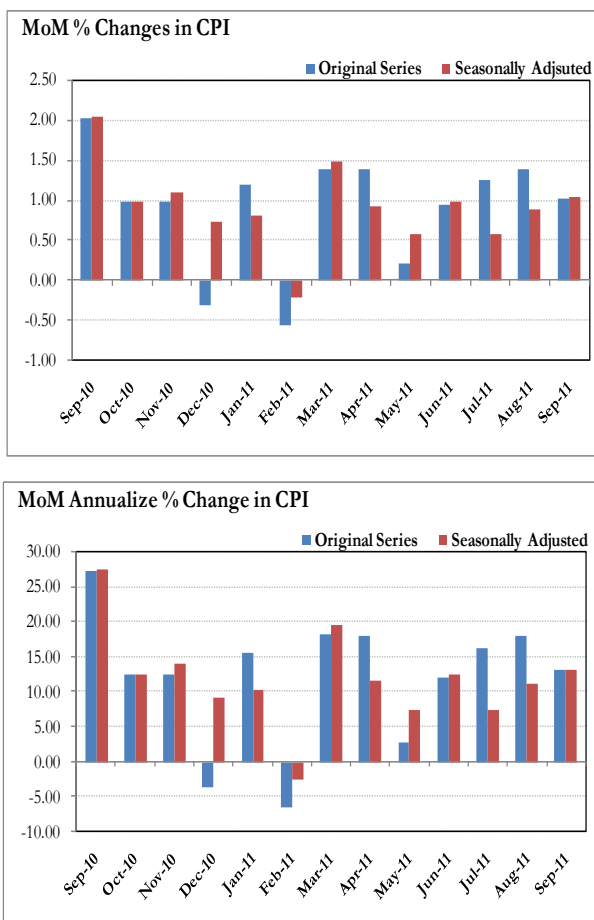
Figure 8.2 shows that seasonally adjusted series are relatively smoother than the original series due to the removal of the seasonal variations. The trend follows the long-term movement in original series, and is smoother than the original series because some irregular fluctuations have been removed.

Seasonally adjusted CPI index for September 2011 stood at 157.4 against 158.5 in Original series showing a decrease of 1.1 on account of adjustment of upward seasonality in September 2011.

Month-on-month change of seasonally adjusted series stood at 1.04% reflecting an increase during September over August 2011 as compared to 1.03% of the 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 September (corresponding to the seasonally adjusted month-on-month rate) is 13.23 percent.

Fig. 8.3 Month-on-Month Percent Changes in CPI



Annexure A

Table A1: CPI Inflation by Groups (percent)								
	Weights	MoM change			YoY change			
		Sep-10	Aug-11	Sep-11	Sep-10	Aug-11	Sep-11	
I. Food Group	37.5	4.6	1.4	1.6	21.3	13.2	9.9	
Food & Non-Alcoholic Beverages	34.8	4.9	1.5	1.7	21.8	13.2	9.7	
Alcoholic Beverages & Tobacco	1.4	0.1	0.3	0.5	14.6	7.2	7.6	
Restaurant & Hotels	1.2	1.2	0.3	1.0	12.9	18.5	18.2	
II. Non-Food Group	62.5	0.2	1.4	0.6	10.5	10.4	10.9	
Clothing & Footwear	7.6	0.3	1.2	1.4	9.6	13.7	14.9	
Housing, Water, Elect, Gas & other Fuels	29.4	0.2	1.1	0.1	11.4	7.9	7.9	
Furnishing & Household Equip. Maintenance etc	4.2	-0.9	2.4	0.8	7.6	12.2	14.2	
Health	2.2	0.6	1.7	1.4	6.8	10.5	11.5	
Transport	7.2	0.3	1.9	0.8	12.5	14.4	14.9	
Communication	3.2	-0.9	-0.1	0.0	15.1	1.1	2.1	
Recreation & Culture	2.0	0.8	0.2	0.3	6.5	5.8	5.3	
Education	3.9	0.5	0.6	0.4	5.3	14.3	14.1	
Miscellaneous	2.8	1.1	4.1	3.2	11.8	21.3	23.8	
Headline	100.0	2.0	1.4	1.0	14.9	11.6	10.5	

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)	
		Sep-10	Sep-11	Sep-10	Sep-11	Sep-10	Sep-11	Sep-10	Sep-11	Sep-10	Sep-11
I. Food Group	9.9	127	127	9	15	18	13	18	13	82	86
Food & Non-Alcoholic Beverages	9.7	115	115	9	15	17	13	15	9	74	78
Alcoholic Beverages & Tobacco	7.6	6	6	0	0	0	0	2	4	4	2
Restaurant & Hotels	18.2	6	6	0	0	1	0	1	0	4	6
II. Non-Food Group	10.9	348	348	49	32	64	55	109	71	126	190
Clothing & Footwear	14.9	59	59	4	8	6	3	26	7	23	41
Housing, Water, Elect, Gas & other Fuels	7.9	36	36	1	0	2	3	11	13	22	20
Furnishing & Household Equip. Maintenance etc	14.2	69	69	0	2	14	3	34	17	21	47
Health	11.5	39	39	14	7	7	15	6	3	12	14
Transport	14.9	43	43	9	1	6	7	12	5	16	30
Communication	2.1	12	12	4	4	4	2	1	6	3	0
Recreation & Culture	5.3	39	39	9	7	10	16	7	10	13	6
Education	14.1	16	16	5	3	4	1	3	1	4	11
Miscellaneous	23.8	35	35	3	0	11	5	9	9	12	21
Overall	10.5	475	475	58	47	82	68	127	84	208	276

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

Table A3: Top Ten Contributors to CPI Inflation (YoY) in September 2011					
Items/ Contributors		Weights	YoY Change		Weighted Contribution
			Sep-10	Sep-11	
A. Ranked by Weighted contribution					
1	Milk Fresh	6.68	16.00	20.72	14.42
2	House Rent	21.81	6.27	7.29	12.70
3	Motor Fuel	3.03	10.26	23.63	6.12
4	Meat	2.43	27.08	21.11	5.60
5	Vegetable Ghee	2.07	12.52	30.51	5.04
6	Education	3.94	5.34	14.14	4.56
7	Cooking Oil	1.75	3.16	30.64	3.98
8	Personal Equipments	0.84	22.01	40.87	3.89
9	Gas	1.58	29.37	13.55	2.91
10	Rice	1.58	3.22	22.16	2.88
Total		45.72			62.10
B. Ranked by Percentage change					
1	Spices	0.54	41.05	41.38	2.57
2	Personal Equipments	0.84	22.01	40.87	3.89
3	Cooking Oil	1.75	3.16	30.64	3.98
4	Vegetable Ghee	2.07	12.52	30.51	5.04
5	Medical Equipment	0.01	11.88	30.34	0.02
6	Gram Whole	0.16	16.63	27.90	0.46
7	Kerosene Oil	0.01	13.01	27.16	0.02
8	Fire Wood Whole	0.23	11.01	26.84	0.60
9	Dry Fruits	0.25	12.07	25.55	0.66
10	Motor Fuel	3.03	10.26	23.63	6.12
Total		8.90			23.36
C. Ranked by Weights					
1	House Rent	21.81	6.27	7.29	12.70
2	Milk Fresh	6.68	16.00	20.72	14.42
3	Electricity	4.40	27.62	5.23	2.46
4	Wheat Flour	4.16	0.89	3.54	1.53
5	Education	3.94	5.34	14.14	4.56
6	Communication & Apparatus	3.15	15.03	2.03	0.51
7	Motor Fuel	3.03	10.26	23.63	6.12
8	Transport Services	2.70	16.74	9.14	2.65
9	Meat	2.43	27.08	21.11	5.60
10	Vegetable Ghee	2.07	12.52	30.51	5.04
Total		54.39			55.60
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 10.5 percent in September, 2011.					

Table A4: Distribution of Price Changes (YoY) - Selected CPI Items: September 2011

Groups	Decrease or no change	Subdued increase (Up to 5%)	Moderate increase (5 to 10%)	More than 10% increase
Food & Non-Alcoholic Beverages	Onion, Tomatoes, Garlic, Chillies Green, Ginger, Potatoes, Pulse Mash (Washed), Pulse Masoor (Washed), Sugar Refined, Chicken Farm Broiler (Liv,	Wheat Flour Avg. Qlty, Pulse Gram, Gur Av. Qlty, Guava, Beans (Lal Lobin), Pulse Moong (Washed), Spinach, Maida, Suji, Wheat Flour Fine/Superior,	Bread Plain Medium Size, Sweetmelon (Garma), Pistachio Av. Qlty., Coriander Seed Powd.Nat., Vermicelli, Besan Av. Qlty., Brinjal, Coriander Seed (Loose), Cardamom Small Av. Qlty,	Chillies Powd.National 20, Cardamom Large Loose Av.Q, Chillies Powder Loos, Cloves Loose Av.Qlty, Coconut Dry Av. Qlty., Dates Av.Qlty., Milo 200 Gm., Gram Whole Yellow Av.Qlty, Cornflaks Fauji 225 Gm., Bottlegourd,
Alcoholic Beverages & Tobacco			Cigarettes Morven Gold 2, Cigarettes Gold Leaf 20, Cigarettes K-20,S, Cigarettes Capstan 20,S,	Betel Nuts, Betel Leaves,
Clothing & Footwear	Heavy Wt Suiting Lawerncp, Child Shoe Power Lite Bat, Gents Shoes Paul Bata, Gents Spoung Chappal Bata, Ladies Spoung Chappal Bat, Ladies Sandal Bata, Gents Sandal Bata, Sports Shoes,	Brassier Sup Qlty, Vest/Shameez (Women) Avg., Gents Shoe, Art 1109 Serv	Gloves Av Qlty, Secondhand Sweeter For Me, Secondhand Winter Jacket, Tailoring Coat-Pant Suit, Pullover Ladies Oxford/Bo, Tailoring Charges Pant (M, Pullover Gents Oxford/Bon,	Heavy Wt Suiting Lawerncp, Handkerchief Avg. Qlty Pa, Dopatta Georgette Av. Qlty, Frock W/Wear Girls, Georgette Av. Qlty, Lungi/Dhoti(Cotton) Avg., Linen Av. Qlty, Awami-Suit W & W(Boy) 24", Vest For Men Av. Qlty., Shirting Av. Qlty., Socks Nylon (Pakistani),
Housing, Water, Elec, Gas & other Fuels		Elect.Charges Upto 50 Uni, Elect.Charges Above 1000, Elect.Charges 301 - 1000	Plumber Wage Rste, Cement Blocks (6'X8"X12"), Elect.Charges 101 - 300 U, Elect.Charges 01 - 100 U, Electrician Wage Rate Per, House Rent	Bricks (New) 1st Class, Kerosene Oil, Firewood Whole, Cement (Local) Specify Br, Electrician Wage Rate Per, Synthetic Enemal Ici Bait, Iron Bar (M.S. Bar) 1/2", Synthetic Enemal Robialac, Gas Chrg All Over 500 Cub, Gas Chrg Over All/Combine
Furnishing & Household Equip. Maintenance etc	Washing Powder (Wheel/ Bo, Match Box Small,	Non Stick Cooking Pan (De, Tube Light Philips 40 Wat, Washing Machine Singer,	Almirah (Steel) 6'X3' 20, Pedestal Fan 22" Super Ql, Bedsheet Single Bed Sup.Q, S.Steel Deghchi Medium Si, Electric Juicer For Apple, Dining Table 6 Chairs A., Electric Blub Energy Save, Boot Polish Liquid Cheery, Chair Plastic (Chairman).	Robin Blue (35 Grams), Towel(3'X2') Av. Qalty, Washing Soap 250 Gms Spec, Electric Blubs "0" Watte, Chair Shesham Wood With A, Hand Stitching Needle M., Boot Polish Cherry/Kiwi 5, Marriage Hall Chg With Fu, Lota Plastic (Med Size) A, Dari Cotton (6'X2 1/2") A
Health	Dettol (Medium), Sancos Syrup (50 Ml.), Phenergan Syrup 120 Ml., Flagyl Tab. 200 Mg., Calpol Syrup 60 Ml., Burnol Cream 30 Grm, Betnesol Eye Drops	Ear Drops (Cardisporine), Brufen Tabs 200-Mg., Panadol Tab. Extra/Plain, Lederplex Syrup, Betnovate-N Ointment 5 Gm, Amoxil Capsule 250 Mg.S, Ventolin Tab. 2Mg., Septran Tablets, Entox Tab., Disprin Tab.	Blood Test (Cp) Charges, Sugar Test (Random/Fastin, Ecg Charges	Cac. 1000 Tab, Galxos-D (450 Grms), Cotton Bandage 2" - 4", Gripe-Water Woodward's, Trisil Tab., O.R.S. (Nimcol), Saniplast One Putty, Vicks Vaporub/Balm, Calcium Syrup Sandoz, Glycrine Small Bottle
Transport	Platform Ticket	Motorcycle Honda Cd-70., Bus Fare Min (Within City, Minibus Fare Max. With In, Suzuki Fare Min. With In C, Car Suzuki 1000 Cc, Motor Cycle Hero 70 Cc, Car Honda Civic 1500Cc	Tyre Puncture Charges, Suzuki Fare Maximum W.In, Minibus Fare Min. With In, Car Toyota 1300 Bus Fare Max (Within City	Gas Cylinder S.Size(L.P.G, Petrol Super, High Speed Diesel Hd, Tyre Cycle Specify Brand, A/C Bus Fare Outside City, Car Tax For 800Cc To 1300, Auto Rickshaw Fares, Tyre Car With Tube Genera, Bicycle With Tyres & Tube, Train Fare Eco. 101-500 K
Communication	U.M.S. Reg Charges Min., Telephone Charges Local C, Tel Charges Out Side City, Postal Envelope Domestic,	Envelope For Saudi Arabia, Mobile Cell Charges,	Fax Charges (Local), Telephone Set Av. Qlty, T.C.S. Ch. Min. With In Zo, Internet Charges, Mobile Set Nokia/Sony/Eri, Postal Registration	
Recreation & Culture	English Book Class V1, Weekly "Mag", Weekly "Akhbar-E-Jahan", Tv.Licence Fee Domestic, Daily "Nawa-E-Waqt", Daily "Jang", Daily "Dawn",	Radio With C.Player Natio, Urdu Book Class V (T.B.Bo, Personnel Computer (Brand, Maths Book Calss V (T.B.B, Urdu Book Class Ix/X(T.B., T.V 20" Color China/Koria, T.V. 20" Colored Wega H-A, Urdu Book Ba/B.Sc, Video Game Sega 16 Byte, Vid. Cassette Blik, Tdk/So,	Pencil goldfish/Deer, Paper Foolscape (27"X17"), Exercise.Book Lined 80/10, Cinema A.C. High Class, Maths Book Class Ix Or X, Dvd/Vcd Player Panasonic/, Fountain Pen Hero/Wings/C, Cable Charges, English Book Class Ix Or, Pen Ink Dollor 57 Ml Bott,	Pakistan Studies Book Ba/, Monthly "Naunehal Digest, English Book Ba/B.Sc, Cinema Non-A/C High Class, Photostate Paper 70 Gm, Tape Recorder Cassette B,
Education	Pvt Eng.Colege Fee (1st Y, Govt. College Fee 1st. Ye, Govt. College Fee 4Th. Ye,	I.T. Tuition Fees,	Govt. University Fee Msc,	Govt. Med. College Fee Mb, Pvt School Fee Eng.Med(Cl, Pvt School Fee Eng.Med(Cl, Govt. Engg. Coll. Fee I Y, Coaching Charges For Clas, Coaching Fee For Class Ix, Pvt School Fee Eng.Med(Cl, Pvt School Fee Eng.Med(Cl, Mba Tuition Fees, Coaching Charges For Class
Restaurant & Hotels				Tea Prepared (Ordinary), Cooked Beef (Av. Hotel), Chicken Biryani Full/Doub, Cooked Mutton (Av. Hotel), Cooked Dal (Av. Hotel), Bread Tandoori St. Size,
Miscellaneous		Hair-Colour Begin (6 Gms), Disposable Razor Gillet-I, Toothpowder Dentonic 90 G, Toilet Soap Safeguard Bat, Lipstick S.Miss/Medora,	Shaving Cream Touch-Me/Ad, Hair Colour (Kalakola), Wrist Watch Gents Citizen, Toothpast Med Size Clgate, Nail Polish S.Miss/Medora, Wall Clock Quartz Av.Qlty,	Silver Tezabi 24 Ct, Gold Tezabi 24 Ct, Blade Treet Ordinary 10", Toilet Soap Lux 95 Grams, Artificial Jewellery Set, Toilet Soap Lifebouy 140, Gel Medium Size, Talc Powder Vice Roay.B.C, Hair Removing Cream (Eu-C, Shaving Charges, Beauty Porl Hair Styl Cha, Purse Ladies

Table A5: City- wise CPI Inflation by Income Groups, September 2011

	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
	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY
1 Rawalpindi	1.7	6.9	2.8	4.8	0.9	8.4	1.4	6.9	2.4	4.1	0.7	9.1
2 Islamabad	1.8	8.2	3.5	6.4	0.6	9.7	1.4	9.1	2.7	7.1	0.4	10.7
3 Lahore	1.7	7.3	2.9	6.5	0.7	7.8	1.3	7.3	2.4	6.6	0.5	7.8
4 Gujranwala	1.4	7.8	2.1	6.5	0.9	8.7	1.1	7.8	1.5	6.9	0.7	8.5
5 Sialkot	1.6	6.5	2.5	5.7	0.9	7.0	1.2	6.6	2.0	6.2	0.7	6.9
6 Faisalabad	1.7	7.2	2.6	4.6	1.0	9.1	1.5	7.5	2.3	5.0	1.0	9.4
7 Multan	1.3	7.0	1.8	4.7	0.9	8.6	1.2	7.2	1.8	5.2	0.8	8.8
8 Sargodha	-0.1	7.4	0.4	3.7	-0.4	10.1	-0.4	8.5	-0.2	4.3	-0.5	11.5
9 Bahawalpur	2.2	11.5	3.1	7.5	1.5	14.3	1.6	11.6	2.3	8.0	1.1	14.1
10 Karachi	1.1	9.1	1.7	8.5	0.6	9.5	0.9	9.4	1.6	8.9	0.5	9.7
11 Hyderabad	1.7	11.5	2.6	13.0	1.0	10.4	1.5	11.7	2.5	13.5	0.8	10.4
12 Sukkur	0.2	11.2	0.1	12.4	0.4	10.3	0.3	11.4	0.1	13.1	0.4	10.2
13 Larkana	3.6	14.2	3.8	14.4	3.4	14.0	3.6	14.8	4.0	14.9	3.4	14.7
14 Peshawar	1.2	7.2	1.8	5.2	0.8	8.6	0.9	7.5	1.4	5.8	0.5	8.6
15 Bannu	2.6	8.9	1.3	4.8	3.6	11.8	1.9	9.2	1.1	5.5	2.4	11.8
16 Quetta	0.3	10.6	0.3	12.1	0.3	9.5	0.1	10.6	-0.1	12.4	0.2	9.3
17 Khuzdar	0.2	13.1	-0.5	10.6	0.7	14.8	0.8	14.3	0.0	11.2	1.4	16.5
	Rs 12001-18000						Rs 18001-35000					
	General		Food		Non-Food		General		Food		Non-Food	
	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY
	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY
1 Rawalpindi	1.4	7.8	2.3	4.9	0.7	9.9	1.2	8.6	2.1	5.3	0.6	11.0
2 Islamabad	1.1	9.2	2.3	6.8	0.2	11.0	0.8	9.2	2.2	6.8	-0.3	11.1
3 Lahore	1.3	7.7	2.2	7.2	0.5	8.1	1.0	7.9	2.0	7.5	0.3	8.2
4 Gujranwala	0.9	8.5	1.1	7.6	0.8	9.1	0.6	8.5	0.6	7.6	0.6	9.1
5 Sialkot	1.2	6.5	1.9	5.8	0.7	7.0	0.9	6.6	1.7	5.6	0.4	7.4
6 Faisalabad	1.5	7.6	2.2	5.4	1.0	9.2	1.3	8.0	1.9	5.5	0.8	9.9
7 Multan	1.2	7.5	1.7	5.4	0.8	9.0	1.0	7.4	1.4	5.0	0.7	9.2
8 Sargodha	-0.3	9.2	-0.1	4.8	-0.4	12.5	-0.2	9.9	-0.3	5.3	-0.2	13.2
9 Bahawalpur	1.4	12.3	2.0	8.4	1.1	15.2	1.1	12.8	1.5	8.9	0.8	15.7
10 Karachi	1.0	9.7	1.6	9.0	0.5	10.2	1.2	10.0	1.7	9.3	0.8	10.5
11 Hyderabad	1.5	12.2	2.5	14.0	0.8	10.9	1.4	12.4	2.4	14.7	0.6	10.7
12 Sukkur	0.3	12.1	0.1	13.6	0.5	11.0	0.4	12.4	0.1	13.9	0.5	11.3
13 Larkana	3.7	15.1	4.0	15.1	3.6	15.0	3.6	15.2	4.0	15.4	3.3	15.1
14 Peshawar	0.9	7.5	1.3	5.5	0.5	9.0	0.7	7.8	1.1	5.9	0.4	9.1
15 Bannu	2.0	9.4	1.2	5.3	2.5	12.4	1.7	9.7	0.9	6.0	2.3	12.6
16 Quetta	0.0	11.2	-0.3	13.2	0.2	9.7	-0.1	11.3	-0.4	13.5	0.2	9.8
17 Khuzdar	0.7	14.7	-0.1	11.9	1.2	16.7	0.7	14.1	0.0	11.8	1.3	15.7
	Above Rs 35000						Combined					
	General		Food		Non-Food		General		Food		Non-Food	
	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY
	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY
1 Rawalpindi	0.8	10.6	1.5	6.4	0.3	13.8	1.0	9.7	1.8	5.8	0.4	12.7
2 Islamabad	0.5	11.0	1.5	8.8	-0.4	12.8	0.5	10.8	1.7	8.4	-0.4	12.7
3 Lahore	0.9	8.3	1.9	9.0	0.0	7.8	1.0	8.0	2.1	8.0	0.2	8.0
4 Gujranwala	0.8	9.2	-0.1	7.4	1.4	10.5	0.8	8.5	0.8	7.3	0.9	9.4
5 Sialkot	0.8	7.0	1.5	5.8	0.3	7.8	1.0	6.7	1.7	5.8	0.4	7.4
6 Faisalabad	1.0	9.4	1.7	6.9	0.5	11.3	1.3	8.2	2.1	5.6	0.7	10.1
7 Multan	0.9	8.8	1.3	6.4	0.6	10.6	1.0	7.9	1.5	5.5	0.6	9.7
8 Sargodha	0.1	11.3	0.1	6.7	0.0	14.8	-0.2	9.6	-0.1	5.1	-0.2	12.9
9 Bahawalpur	0.7	13.4	0.8	9.8	0.6	16.1	1.2	12.5	1.9	8.6	0.8	15.4
10 Karachi	1.1	10.3	1.4	10.2	0.9	10.4	1.0	10.1	1.5	9.7	0.6	10.4
11 Hyderabad	1.3	13.2	2.3	15.4	0.5	11.5	1.4	12.4	2.4	14.4	0.6	10.9
12 Sukkur	0.5	13.4	0.3	14.9	0.6	12.4	0.4	12.2	0.2	13.7	0.5	11.2
13 Larkana	3.3	16.1	4.2	16.1	2.8	16.1	3.6	15.0	4.0	15.1	3.3	14.8
14 Peshawar	0.5	8.5	0.5	5.9	0.4	10.5	0.7	8.0	1.1	5.7	0.4	9.6
15 Bannu	1.6	13.5	0.7	7.7	2.2	17.8	1.9	10.0	1.1	5.8	2.5	13.1
16 Quetta	-0.1	11.6	-0.7	13.8	0.4	10.0	0.0	11.2	-0.4	13.2	0.2	9.7
17 Khuzdar	1.0	16.3	-0.2	13.6	1.8	18.2	0.6	14.1	-0.2	11.4	1.2	16.0

Table A6: City- wise CPI Inflation (YoY) September, 2011

	High inflation cities				Low inflation cities		
	General	Food	Non-food		General	Food	Non-food
Gawadar	16.2	19.5	13.9	Karachi	10.1	9.7	10.4
Loralai&Cantt	15.9	16.4	15.6	Mardan	10.1	7.6	11.7
Dera Mrd.Jamali	15.5	17.6	14.0	Bannu	10.0	5.8	13.1
Larkana	15.0	15.1	14.8	Rawalpindi	9.7	5.8	12.7
Khuzdar	14.1	11.4	16.0	Sargodha	9.6	5.1	12.9
Mithi	13.3	13.8	13.0	Jhelum	9.4	6.9	11.4
D.I.Khan	13.0	10.8	14.7	Jhang	9.4	7.7	10.6
Bahawalnagar	12.9	8.5	16.1	Mingora	9.3	7.7	10.4
Mir Pur Khas	12.7	16.9	9.7	Attock	8.8	4.8	11.9
Bahawalpur	12.5	8.6	15.4	Vehari	8.8	7.1	10.0
Hyderabad	12.4	14.4	10.9	Gujranwala	8.5	7.3	9.4
Sukkur	12.2	13.7	11.2	Faisalabad	8.2	5.6	10.1
Nawabshah	12.1	9.9	13.6	Muzaffargarh	8.1	6.1	9.7
Turbat	11.7	12.5	11.2	Lahore	8.0	8.0	8.0
Quetta	11.2	13.2	9.7	Peshawar	8.0	5.7	9.6
Rahim Yar Khan	11.2	10.1	12.1	Multan	7.9	5.5	9.7
Islamabad	10.8	8.4	12.7	Wazirabad	7.0	4.2	9.1
Sahiwal	10.7	8.2	12.6	Sialkot	6.7	5.8	7.4
D.G. Khan	10.6	10.9	10.5	Mianwali	6.0	3.6	7.8
Abbotabad	10.6	7.2	12.9				
Dadu	10.5	9.1	11.5				

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

Table A7: Income Group-wise Inflation (percent)						
	MoM			YoY		
	Sep-10	Aug-11	Sep-11	Sep-10	Aug-11	Sep-11
<u>Up to Rs. 8000</u>						
General	3.2	1.3	1.5	16.4	11.3	9.4
Food	5.4	1.4	2.1	21.3	12.0	8.5
Non-food	1.7	1.2	1.0	13.1	10.8	10.0
<u>Rs. 8001- 12000</u>						
General	2.8	1.3	1.3	16.1	11.5	9.8
Food	5.0	1.4	1.8	21.3	12.5	9.1
Non-food	1.3	1.2	0.9	12.6	10.8	10.4
<u>Rs. 12001- 18000</u>						
General	2.6	1.2	1.2	14.6	11.5	10.0
Food	4.8	1.4	1.7	21.4	12.8	9.4
Non-food	0.9	1.0	0.8	10.1	10.6	10.4
<u>Rs. 18001- 35000</u>						
General	2.2	1.4	1.1	16.3	11.4	10.2
Food	4.7	1.5	1.6	21.5	13.0	9.8
Non-food	0.5	1.4	0.7	12.8	10.3	10.5
<u>Above Rs. 35000</u>						
General	1.5	1.5	0.9	14.2	11.6	11.0
Food	4.3	1.5	1.4	21.1	13.9	10.7
Non-food	-0.5	1.6	0.6	9.5	10.0	11.2
<u>All income groups</u>						
General	2.0	1.4	1.0	14.9	11.6	10.5
Food	4.6	1.4	1.6	21.3	13.2	9.9
Non-food	0.2	1.4	0.6	10.5	10.4	10.9

Table A8: SPI Item-wise Price Movements

Sr.No.	Items	Unit	Prices Sep-11	Percentage change	
				YoY	MoM
1	Wheat	10Kg.	259.3	1.7	1.8
2	Wheat Flour Bag	10Kg.	297.3	1.7	5.0
3	Rice Basmati Broken	Kg.	58.9	26.3	0.1
4	Rice Irri-6/9	Kg.	45.3	23.8	1.3
5	Bread Plain Med. Size (340-400 Gm.)	Each	30.7	11.7	0.6
6	Beef	Kg.	244.6	17.7	2.0
7	Mutton	Kg.	463.6	19.4	1.2
8	Chicken Live (Farm)	Kg.	143.5	-1.2	-12.7
9	Milk Fresh	Litr	56.1	19.7	0.2
10	Curd	Kg.	66.3	19.9	0.6
11	Milk Powdered Nido	500G	229.7	14.9	0.1
12	Egg Hen (Farm)	Doz.	81.8	9.9	2.4
13	Mustard Oil	Kg.	173.7	21.8	1.5
14	Cooking Oil (Tin)	2.5Ltr	495.0	32.0	0.0
15	Veg. Ghee (Tin)	2.5Kg.	495.0	32.0	0.0
16	Veg.Ghee Loose	Kg.	165.9	26.7	-0.3
17	Bananas	Doz.	55.5	13.7	-15.8
18	Masoor Pulse Washed	Kg.	106.1	-11.2	0.0
19	Moong Pulse Washed	Kg.	137.1	-1.0	-1.8
20	Mash Pulse Washed	Kg.	150.8	-12.5	-1.6
21	Gram Pulse Washed	Kg.	72.7	1.6	-0.3
22	Potatoes	Kg.	31.4	-12.0	1.2
23	Onions	Kg.	32.3	-19.5	34.6
24	Tomatoes	Kg.	47.7	-15.1	29.7
25	Sugar	Kg.	75.4	-7.2	0.4
26	Gur	Kg.	90.9	4.0	2.7
27	Salt Powdered Loose (Lahori)	Kg.	7.9	12.1	0.1
28	Red Chilies Powder Loose	Kg.	283.1	52.1	12.1
29	Garlic	Kg.	123.2	-41.6	-9.5
30	Tea (Yellow Label 200 Gm.)	200Gm.	131.6	11.6	0.0
31	Cooked Beef Plate	Each	57.8	15.3	0.4
32	Cooked Dal Plate	Each	36.3	15.2	0.5
33	Tea Prepared (Sada)	Cup	13.7	17.8	0.0
34	Cigarettes K-2 (20'S)	20'S	28.7	5.5	0.6
35	Long Cloth (Coarse Latha)	Mtr.	98.6	-33.4	1.7
36	Shirting	Mtr.	104.4	22.0	0.9
37	Lawn	Mtr.	98.1	-33.1	-0.3
38	Georgette (Voil Printed)	Mtr.	82.8	22.4	0.0
39	Sandal Gents Bata	Pair	499.0	0.0	0.0
40	Chappal Spng.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	4.5	0.0
43	Gas Charges	Mmbtu	125.1	13.5	0.0
44	Kerosene	Litr	98.6	27.8	0.0
45	Firewood	40Kg	406.5	25.8	1.3
46	Energy Savor 14 Watts	Each	135.8	10.4	1.9
47	Washing Soap (200-250 Gm.)	Cake	17.6	27.0	0.4
48	Match Box	Each	1.1	6.0	1.0
49	Petrol	Litr	85.9	26.4	0.0
50	Diesel	Litr	93.5	24.1	0.5
51	L.P.G.(11 Kg Cylinder.)	Each	1382.7	24.8	-1.5
52	Tele. Local Call	Call	3.6	0.0	0.0
53	Bath Soap Lifebuoy (Standard)	Cake	30.0	25.0	0.0
Maximum				52.1	34.6
Median				12.1	0.1
Minimum				-41.6	-15.8

Table A9: Distribution of Price Change (YoY) - WPI Items: September 2011				
Groups	Decrease or no change	Subdued increase (Up to 5%)	Moderate increase (5 to 10%)	More than 10% increase
Agriculture Forestry & Fishery Products	Edible Roots/Potatoes, Sugar Crops, Sorghum/Jowar, Fibre Crops, Fishes Live Fresh Or Chilled,	Poultry, Wheat, Stimulant And Spice Crops,		Pulses, Fuel Wood In Logs, Cotton Seeds, Other Oil Seeds, Dry Fruits, Fresh Fruits, Rice, Raw Animal Material/Wool, Millet/Bajra, Milk From Bovine Animals, Vegetables, Hides And Fur Skins,Raw, Eggs, Maize, Unmanufactured Tobacco,
Ores & Minerals, Electricity Gas & Water		Electrical Energy,		Salt & Pure Sodium Chloride, Natural Gas Liquefied, Coal Not Agglomerated,
Food Products, Beverages and Tobacco, Textiles, Apparel and Leather Products	Milk And Cream In Solid Form, Sugar Confectionary, Cotton Yarn, Footwear,	Woolen Carpets, Wheat Flour, Leather With Out Hairs, Chocolate,	Sugar Refined, Other Leather N.E.C,	Spices, Vegetable Ghee, Other Food Products, Mineral Water, Vegetable Oil Refined, Nylon Yarn, Towels, Dairy Products N.E.C, Woven Fabrics, Cotton Fabrics, Hosiery Products, Coffee And Tea, Bed Sheets, Vegetables & Fruit Juices, Fruit Juices, Meat Of Animals, Dried Fruits & Nuts, Processed Liquid Milk, Blankets, Other Fabrics, Beverages, Quilts, Blended Yarn, Silk And Rayon Fabrics, Synthetic Carpets, Other Cereal Flour, Ice Cream, Tobacco Products, Ready Made Garments, Oil Cakes,
Other Transportable Goods except Metal Products, Machinery and Equipments	Medicines,	Ceramics And Sanitary, Dying Materials,	Glass Sheets, Matches, Insecticides,	Fertilizers, Furnace Oil, Plastic Products, Hard Board, Kerosene Oil, Diesel Oil, Pesticides, Motor Sprit, Chemicals, Paints & Varnishes, Other Glass Articles, Soaps & Detergent, Mobil Oil, Auto Tyres, Bricks Blocks And Tiles, Coke, Cement, Bed Foams, Printing Paper, Timber,
Metal Product Machinery & Equipment	Pig Iron,	Lathe Machines, Engines And Motors, Vacuum Pumps, Chuff Cutter, Concrete Mixer,	Cultivators, Motor Vehicles, Radio And Television, Motor Cycles,	Bicycles, Lighting Equipments, Refrige,Wash& Sew Mach,Iron,Fan, Tractors, Steel Products, Steel Bars & Sheets, Air Conditioners, Pipe Fittings, Electrical Wires,

Table A10: Consumer Price Index Numbers by Major Groups and Selected Commodities				
Items and specification	Weights	Index		
		Sep-10	Aug-11	Sep-11
General	100	143.49	156.88	158.50
Food & Non-Alcoholic Beverages.	34.83	164.93	177.95	180.91
1 Wheat	0.35	151.10	150.12	153.01
2 Wheat Flour	4.16	156.30	158.86	161.83
3 Wheat Product	0.10	154.64	158.22	158.88
4 Besan	0.15	155.41	164.38	165.82
5 Rice	1.58	123.44	149.33	150.80
6 Cereals	0.16	156.05	179.57	182.11
7 Bakery & Confectionary	1.16	140.29	156.97	158.21
8 Nimco	0.46	149.95	172.25	175.56
9 Meat	2.43	163.69	193.43	198.25
10 Chicken	1.36	185.39	190.01	173.78
11 Fish	0.30	147.01	164.52	165.60
12 Milk Fresh	6.68	156.37	188.81	188.77
13 Milk Product	0.63	152.94	185.07	187.08
14 Milk Powder	0.11	135.04	154.11	155.04
15 Egg	0.46	146.21	155.84	166.34
16 Mustard Oil	0.10	123.23	145.96	148.69
17 Cooking Oil	1.75	111.11	144.71	145.15
18 Vegetable Ghee	2.07	119.79	155.92	156.34
19 Dry Fruits	0.25	153.39	188.89	192.58
20 Fresh Fruits	1.86	161.50	201.77	184.54
21 Pulse Masoor	0.27	168.95	159.37	156.76
22 Pulse Moong	0.23	253.48	267.93	262.27
23 Pulse Mash (Washed)	0.21	245.31	218.31	215.49
24 Pulse Gram	0.24	155.12	163.07	162.35
25 Gram Whole	0.16	151.75	185.26	194.09
26 Beans	0.03	164.11	173.25	171.31
27 Potatoes	0.47	254.66	209.66	212.26
28 Onion	0.53	342.60	134.96	188.96
29 Tomatoes	0.44	228.13	110.01	127.24
30 Fresh Vegetable	1.68	226.39	182.59	222.25
31 Sugar	1.04	292.33	266.42	271.34
32 Gur	0.02	265.49	271.10	277.19
33 Honey	0.04	164.55	195.85	200.41
34 Sweet Meet	0.25	156.24	181.24	183.28
35 Beverages	1.20	135.78	157.06	159.43
36 Jam, Tomato Ketchup & Pickle	0.25	146.10	166.77	168.05
37 Condiments	0.27	152.25	177.66	180.93
38 Spices	0.54	171.06	237.29	241.85
39 Tea	0.84	176.42	199.84	200.16
Alcoholic Beverages, Tobacco	1.41	150.19	160.77	161.56
40 Cigarette	1.39	150.46	160.76	161.50
41 Betel Leaves & Nuts	0.02	133.61	161.31	165.08
Clothing & Footwear	7.57	127.70	144.70	146.68
42 Cotton Cloth	1.73	121.99	143.76	145.86
43 Woolen Cloth	0.88	131.14	156.43	160.76
44 Ready Made Garment	0.97	123.95	141.95	145.16
45 Woolen Readymade Garments	0.40	129.71	138.77	140.76
46 Hosiery	0.51	131.29	153.36	152.88
47 Dopatta	0.44	124.84	151.28	153.88
48 Cleaning & Laundering	0.21	138.50	153.99	155.52

Table A10: Consumer Price Index Numbers by Major Groups and Selected Commodities				
Items and specification	Weights	Index		
		Sep-10	Aug-11	Sep-11
49 Tailoring	0.88	147.15	168.69	170.67
50 Foot ware	1.55	121.03	122.69	123.12
Housing, Water, Elect, Gas & Other Fuel	29.41	131.43	141.65	141.80
51 House Rent	21.81	119.89	128.63	128.63
52 Construction Input Item	0.56	150.73	175.69	179.42
53 Construction Wage Rate	0.33	135.42	148.52	149.87
54 Water Supply	0.50	119.56	123.01	126.90
55 Electricity	4.40	160.32	168.71	168.71
56 Gas	1.58	204.32	232.00	232.00
57 Kerosene Oil	0.01	179.87	228.72	228.72
58 Fire Wood Whole	0.23	146.57	186.23	185.91
Furnished H. Hold Equip.& Maint. Etc	4.21	130.94	148.31	149.49
59 Furniture	0.33	129.61	143.22	144.67
60 Household Textile	0.65	127.14	146.29	147.56
61 Household Equipment	0.59	134.49	145.99	146.77
62 Utensils	0.32	127.63	141.78	143.11
63 Plastic Products	0.25	140.19	156.73	158.01
64 Washing Soap & Detergent	0.79	143.45	164.98	167.77
65 Sewing Needle & Dry Cell	0.15	119.45	133.21	133.80
66 Household Servant	1.04	122.18	141.03	141.08
67 Marriage Hall Charges	0.08	137.35	161.65	163.18
Health	2.19	119.91	131.80	133.64
68 Drug Medicine	1.27	113.68	120.59	123.51
69 Medical Equipment	0.01	129.72	169.08	169.08
70 Doctor (MBBS) Clinic Fee	0.59	130.59	153.58	153.58
71 Medical Test	0.32	124.60	135.01	136.05
Transport	7.20	141.82	161.69	162.97
72 Motor Vehicle	0.66	130.73	136.84	138.69
73 Motor Vehicle Accessories	0.24	154.25	177.26	178.91
74 Motor Fuel	3.03	128.51	157.72	158.88
75 Mechanical Service	0.46	137.01	151.43	152.48
76 Motor Vehicle Tax	0.11	100.00	119.80	120.91
77 Transport Services	2.70	160.85	174.24	175.55
Communication	3.22	120.84	123.34	123.33
78 Postal Services	0.07	158.65	163.05	163.13
79 Communication & Apparatus	3.15	120.05	122.50	122.49
Recreation & Culture	2.02	132.45	139.07	139.53
80 Recreation & Culture	0.86	109.66	114.75	115.29
81 Text Books	0.57	157.14	164.00	164.47
82 News Papers	0.19	137.66	141.92	142.03
83 Stationery	0.40	144.02	154.81	155.26
Education	3.94	122.87	139.75	140.24
84 Education	3.94	122.87	139.75	140.24
Restaurants And Hotels	1.23	152.38	178.46	180.17
85 READY MADE FOOD	1.23	152.38	178.46	180.17
Miscellaneous Goods And Services	2.76	143.53	172.21	177.73
86 Personal Care	1.49	135.08	152.78	154.84
87 Cosmetics	0.39	121.70	132.99	135.82
88 Blades	0.03	125.14	152.27	153.86
89 Personal Equipments	0.84	169.15	225.24	238.29

Table A11: Wholesale Price Index Numbers by Major Groups and Selected Commodities			
Items and Specifications	Index		
	Sep-10	Aug-11	Sep-11
General	152.69	178.24	178.68
Agriculture Forestry & Fishery	171.86	189.98	190.20
1 Wheat	157.09	156.81	159.16
2 Maize	140.73	169.61	161.05
3 Rice	120.32	144.66	150.25
4 Sorghum/Jowar	186.14	178.57	173.81
5 Millet/Bajra	125.22	159.94	154.11
6 Vegetables	208.15	177.31	252.72
7 Fresh Fruits	128.12	187.76	161.87
8 Dry Fruits	145.07	188.35	183.95
9 Cotton Seeds	152.55	196.72	197.86
10 Other Oil Seeds	127.41	162.07	163.39
11 Edible Roots/Potatoes	269.46	224.71	228.96
12 Stimulant And Spice Crops	209.32	205.61	209.67
13 Pulses	154.53	203.30	209.04
14 Sugar Crops	296.35	253.58	271.70
15 Fiber Crops	228.21	234.75	219.67
16 Unmanufactured Tobacco	151.66	168.65	167.70
17 Poultry	181.27	208.01	184.50
18 Milk From Bovine Animals	150.73	185.28	185.17
19 Eggs	144.93	168.77	173.69
20 Raw Animal Material/Wool	107.71	132.25	133.72
21 Hides And Fur Skins, Raw	102.34	121.32	122.70
22 Fuel Wood In Logs	134.46	178.37	178.81
23 Fishes Live Fresh Or Chilled	142.93	136.10	141.19
Ores/Minerals, Gas & Elect.	155.52	170.01	170.24
24 Coal Not Agglomerated	113.33	125.49	125.49
25 Natural Gas Liquefied	154.85	179.82	180.26
26 Salt & Pure Sodium Chloride	119.31	144.01	147.42
27 Electrical Energy	162.37	166.13	166.13
Food, Beverages, Tobacco, Textiles	154.38	176.26	176.66
28 Meat Of Animals	167.83	199.71	204.23
29 Vegetables & Fruit Juices	140.14	172.84	174.55
30 Dried Fruits & Nuts	158.90	189.49	192.58
31 Fruit Juices	125.86	153.15	153.88
32 Vegetable Oil Refined	112.81	154.78	152.87
33 Vegetable Ghee	100.12	140.73	141.30
34 Oil Cakes	143.51	158.07	158.18
35 Processed Liquid Milk	145.12	172.50	175.46
36 Milk And Cream In Solid Form	185.20	180.03	176.13
37 Ice Cream	136.87	153.62	153.62
38 Dairy Products N.E.C	131.89	171.36	172.23
39 Wheat Flour	145.28	147.54	149.32
40 Other Cereal Flour	130.41	146.64	146.59
41 Sugar Refined	261.75	280.55	286.18
42 Chocolate	99.72	101.46	101.46
43 Sugar Confectionary	102.28	100.89	100.89
44 Coffee And Tea	150.83	189.83	189.90
45 Spices	119.58	208.03	210.15
46 Other Food Products	216.12	294.55	294.55
47 Mineral Water	118.42	160.81	161.05
48 Beverages	110.99	130.69	131.03
49 Tobacco Products	159.24	177.98	177.04
50 Cotton Yarn	200.41	205.27	199.35
51 Nylon Yarn	147.22	194.90	195.80
52 Blended Yarn	175.58	210.43	204.88
53 Woven Fabrics	120.38	144.44	156.77
54 Cotton Fabrics	125.06	159.92	161.42
55 Other Fabrics	120.56	144.15	145.30
56 Silk And Rayon Fabrics	119.03	137.48	137.50

Table A11: Wholesale Price Index Numbers by major Groups and Selected Commodities			
Items and Specifications	Index		
	Sep-10	Aug-11	Sep-11
57 Towels	132.31	180.25	175.89
58 Blankets	115.72	137.48	139.69
59 Bed Sheets	125.46	155.69	156.89
60 Quilts	120.42	139.42	141.26
61 Woolen Carpets	103.57	107.14	107.14
62 Synthetic Carpets	136.44	155.52	155.52
63 Hosiery Products	116.73	148.81	149.26
64 Ready Made Garments	112.05	122.06	123.72
65 Leather With Out Hairs	105.18	107.45	107.45
66 Other Leather N.E.C	110.61	116.33	116.33
67 Foot wears	101.48	101.48	101.48
Other Transportable Goods	139.44	184.17	184.43
68 Timber	122.75	135.31	135.75
69 Printing Paper	107.00	118.38	118.38
70 Hard Board	100.00	141.67	141.67
71 Coke	133.48	155.28	155.28
72 Motor Sprit	113.12	143.22	143.22
73 Diesel Oil	174.14	225.88	226.48
74 Kerosene Oil	175.33	230.92	230.92
75 Furnace Oil	129.35	186.14	190.55
76 Mobil Oil	143.63	170.23	170.23
77 Chemicals	113.47	139.77	141.27
78 Dying Materials	106.00	106.14	106.14
79 Fertilizers	148.42	244.23	241.00
80 Pesticides	127.15	161.30	161.88
81 Insecticides	120.15	128.40	126.62
82 Paints & Varnishes	144.19	176.38	179.04
83 Medicines	115.97	115.90	113.75
84 Soaps & Detergent	121.13	144.47	144.74
85 Auto Tyres	142.06	165.78	166.32
86 Plastic Products	122.64	167.81	179.81
87 Glass Sheets	151.95	159.49	162.39
88 Other Glass Articles	157.91	192.36	194.02
89 Ceramics And Sanitary	129.06	130.68	131.64
90 Bricks Blocks And Tiles	135.15	155.42	158.14
91 Cement	129.93	156.55	150.87
92 Bed Foams	108.33	121.17	122.33
93 Matches	108.62	115.66	115.66
Metal Product Machinerv & Equip	120.11	146.74	148.70
94 Pig Iron	128.97	128.97	128.97
95 Steel Bars & Sheets	111.64	130.79	131.53
96 Pipe Fittings	125.46	138.68	139.78
97 Steel Products	120.31	139.19	143.15
98 Engines And Motors	105.28	109.07	109.07
99 Vacuum Pumps	111.45	115.39	115.39
100 Air Conditioners	142.49	162.61	163.43
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, Washing & Sew Mach, Iron, Fan	130.39	160.46	162.29
107 Electrical Wires	140.41	152.67	155.93
108 Lighting Equipments	110.88	130.07	138.36
109 Radio And Television	120.33	128.54	128.54
110 Motor Vehicles	138.09	147.80	148.17
111 Motor Cycles	114.61	121.17	121.17
112 Bicycles	122.03	160.14	160.14

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
2009	Jan	116.46	119.80	114.46	115.90	117.69	114.76	120.77
	Feb	118.06	123.01	115.10	117.00	118.78	115.87	122.56
	Mar	118.49	124.08	115.14	117.52	121.22	115.17	123.76
	Apr	119.68	125.91	115.95	119.50	123.82	116.76	124.35
	May	119.60	125.42	116.11	121.07	125.29	118.39	125.23
	Jun	120.64	126.77	116.97	122.56	125.46	120.72	126.88
	Jul	122.46	130.97	117.36	124.71	126.30	123.70	130.55
	Aug	124.68	134.95	118.53	127.79	129.44	126.74	132.84
	Sep	124.89	135.20	118.71	128.83	130.66	127.67	134.11
	Oct	125.64	135.98	119.44	130.03	131.80	128.91	134.82
	Nov	127.30	138.87	120.37	132.41	134.07	131.36	137.06
	Dec	126.37	135.81	120.72	132.65	134.59	131.42	136.90
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	145.69	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	163.91	133.51	155.40	156.03	155.00	163.01
	Nov	146.34	166.59	134.21	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	136.38	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	168.77	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	142.69	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

*: all groups combined

Table A13: International Commodity Prices/ Indices				
	Jun-11	Jul-11	Aug-11	Sep-11
Energy				
Crude Oil (US\$ per barrel) *	105.9	107.9	100.5	100.8
IMF Energy Index (2005 = 100)	196.6	200.9	189.1	189.8
WB Energy Index (1990 = 100) @	357.7	364.9	342.1	343.5
Food				
Rice (\$/MT)	518.1	546.2	573.8	615.6
Wheat (\$/MT)	326.5	303.9	327.1	315.9
Sugar (US cent/ pound)	24.9	29.5	28.9	26.6
Palm Oil (\$/MT)	1,075.9	1,033.6	1,047.5	995.2
Soybean Oil (\$/MT)	1,250.1	1,242.1	1,225.2	1,218.9
Non-Food Non-Energy				
Cotton Outlook 'A' Index #	160.7	149.3	114.1	116.7
IMF Metal Price Index (2005 = 100)	235.7	242.2	232.8	224.1
Copper (\$/MT)	9,066.9	9,650.5	8,998.0	8,300.1
Aluminum (\$/MT)	2,557.8	2,525.4	2,381.0	2,293.5
Iron Ore (\$ cents/dry MT)	170.9	173.0	177.5	177.2
Tin (\$/MT)	25,519.7	27,398.1	24,056.7	22,526.6
Nickle (\$/MT)	22,420.9	23,848.0	21,864.7	20,377.6
Zinc (\$/MT)	2,234.5	2,397.8	2,199.3	2,075.2
Lead (\$/MT)	2,525.0	2,681.0	2,393.1	2,287.7
Uranium (\$/MT)	55.4	52.8	50.7	52.0
DAP (\$/MT)	612.0	650.6	659.4	642.5
Urea (\$/MT)	485.9	474.8	477.5	503.8
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 Adjusted				
CPI Index 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	
Nov	116.46	127.30	146.34	
Dec	116.18	126.37	145.90	
Jan	116.46	129.64	147.67	
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	
CPI Index Seasonally Adjusted Series				
Jul	112.05	122.17	137.36	154.45
Aug	113.63	123.88	139.70	155.82
Sep	114.60	124.14	142.57	157.45
Oct	116.11	124.86	143.97	
Nov	115.85	126.63	145.56	
Dec	116.77	127.01	146.63	
Jan	116.61	129.80	147.84	
Feb	118.59	130.72	147.54	
Mar	119.11	132.47	149.75	
Apr	119.84	134.32	151.14	
May	120.09	134.92	152.03	
Jun	121.23	135.50	153.54	

Table 15: CPI Index Monthly & Average Seasonal Factors

CPI Index – Seasonal Factors					
Period	FY09	FY10	FY11	FY12	Average
Jul	100.26	100.24	100.19	100.17	100.22
Aug	100.61	100.65	100.67	100.68	100.65
Sep	100.55	100.60	100.65	100.67	100.62
Oct	100.62	100.63	100.64		100.63
Nov	100.53	100.53	100.53		100.53
Dec	99.50	99.49	99.50		99.50
Jan	99.88	99.88	99.88		99.88
Feb	99.55	99.55	99.53		99.54
Mar	99.48	99.46	99.44		99.46
Apr	99.87	99.88	99.90		99.88
May	99.60	99.57	99.54		99.57
Jun	99.52	99.51	99.50		99.51

Table 16: CPI Index Month-on-Month Changes Original & Seasonally Adjusted

CPI Index MoM % Change 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	
Nov	-0.32	1.32	0.99	
Dec	-0.24	-0.73	-0.30	
Jan	0.24	2.59	1.21	
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		0.78	1.37	0.59
Aug	1.41	1.40	1.70	0.89
Sep	0.86	0.21	2.06	1.04
Oct	1.31	0.58	0.98	
Nov	-0.22	1.42	1.11	
Dec	0.79	0.30	0.74	
Jan	-0.14	2.19	0.82	
Feb	1.71	0.71	-0.20	
Mar	0.43	1.34	1.50	
Apr	0.61	1.40	0.92	
May	0.21	0.44	0.59	
Jun	0.95	0.43	0.99	

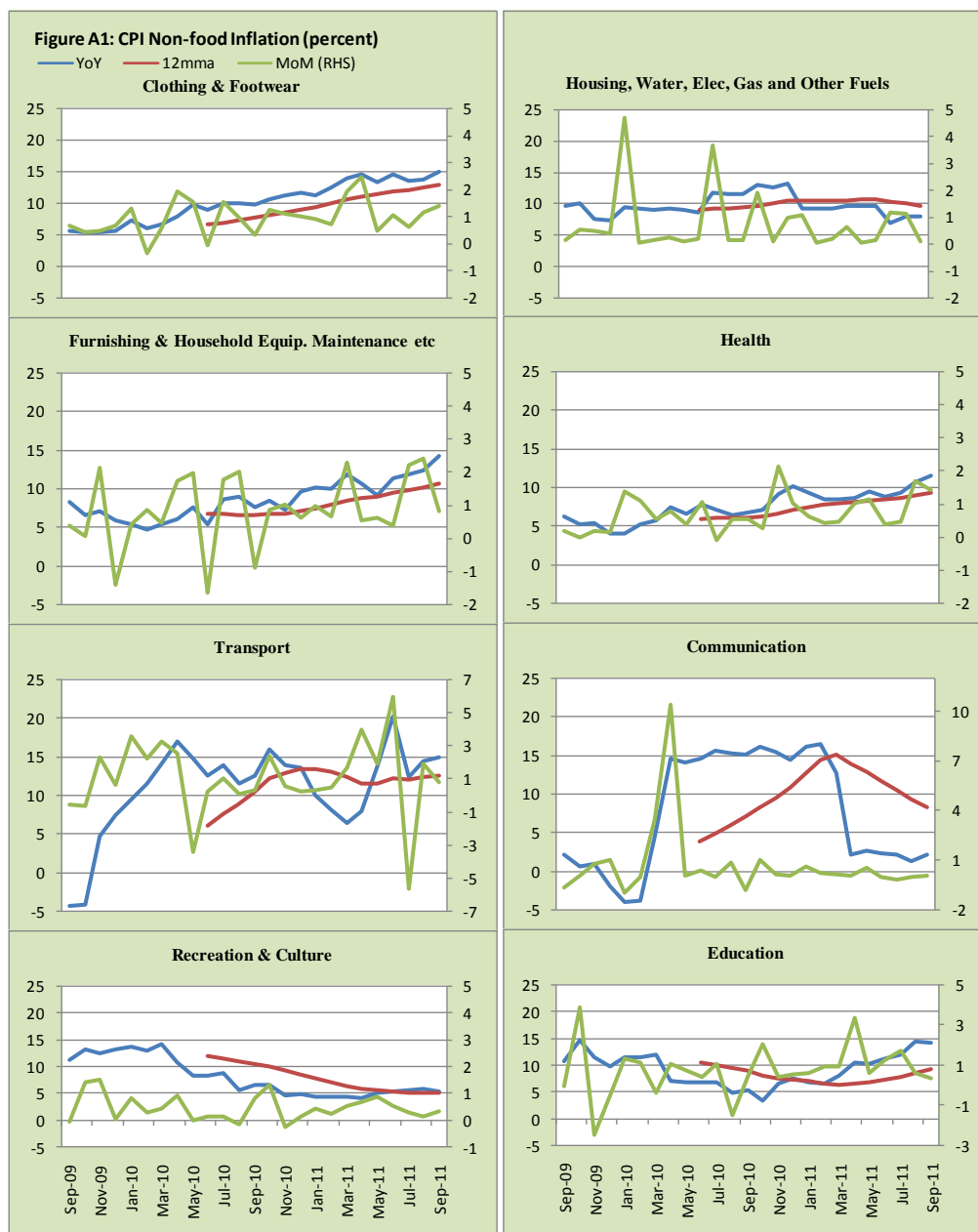


Figure A2: Frequency distribution of price changes of CPI items, September 2011

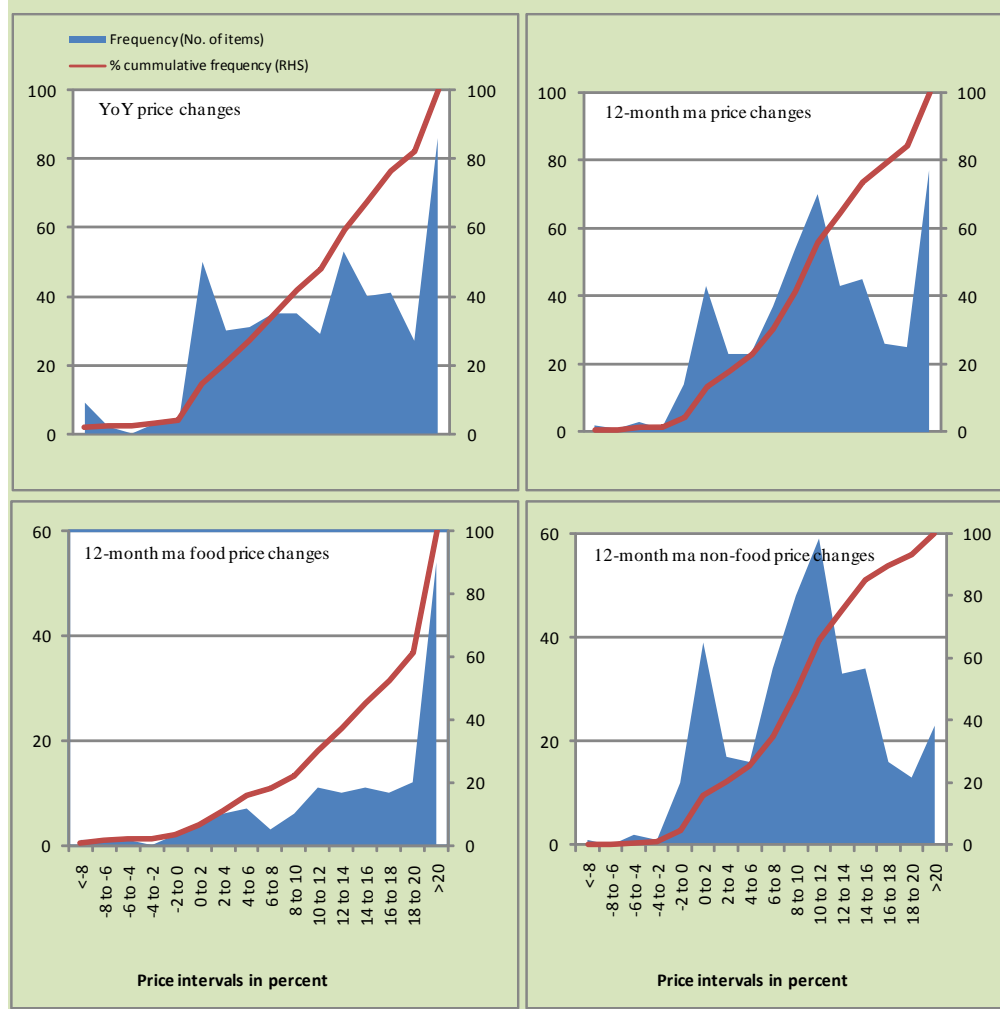
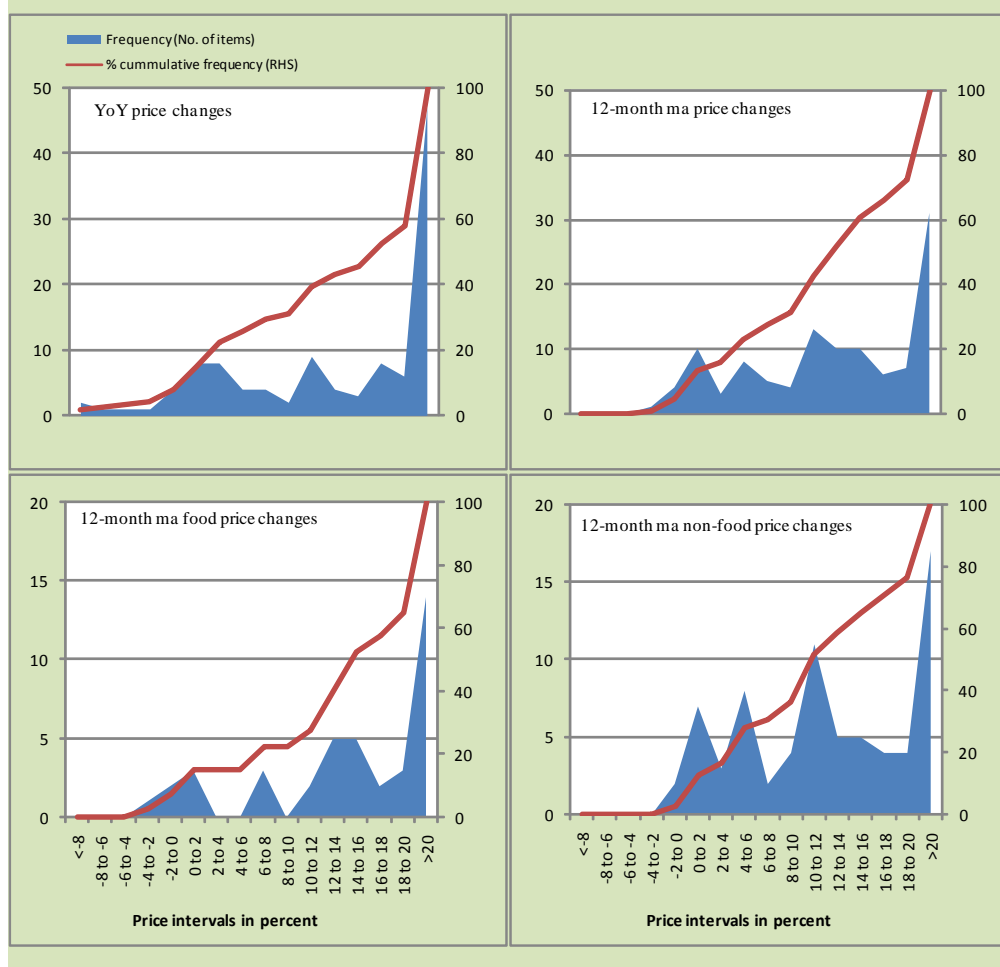
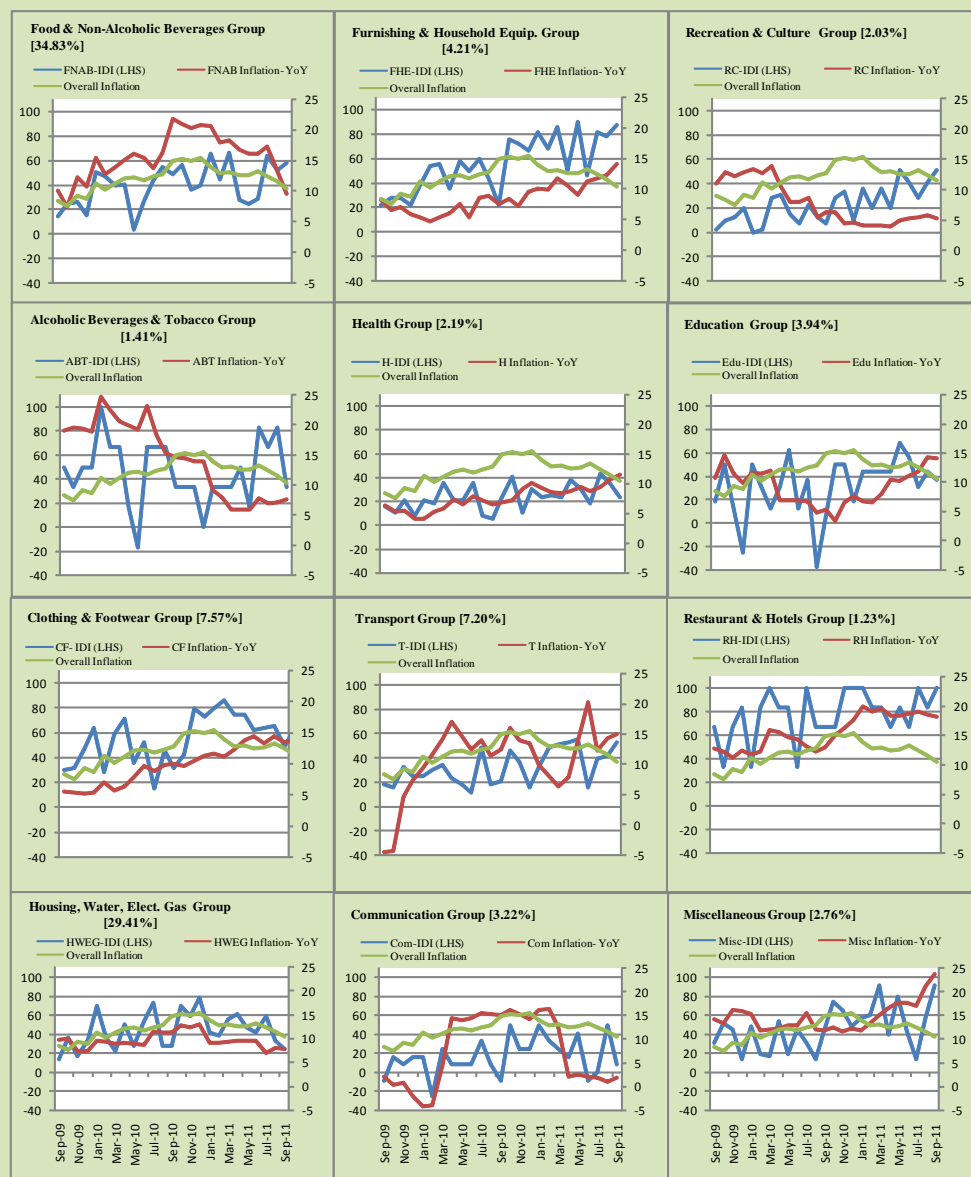


Figure A3: Frequency Distribution of price changes of WPI commodities, September 2011



Inflation Monitor, September 2011

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.