

Inflation Monitor

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Review

Inflation in Brief

1. Headline CPI inflation (2007-08=100) is recorded at 8.8 percent on year-on-year basis in September 2012 as compared to 9.1 percent in the previous month and 10.5 percent in the corresponding month of last year.
2. CPI inflation on month-on-month basis is recorded at 0.8 percent in September 2012 as compared to 0.9 percent in the previous month and 1.0 percent in the corresponding month of last year. Seasonally adjusted month-on-month CPI inflation increased to 0.7 percent in September 2012 as compared to 0.6 percent in the previous month.
3. Core inflation (trimmed) on year-on-year basis decreased to 10.4 percent in September 2012 as compared to 10.6 percent in the previous month and it was 11.7 percent in the corresponding month of last year.
4. On month-on-month basis, the Core inflation (trimmed) increased to 0.5 percent in September 2012 as compared to 0.4 percent in previous month. It was 0.6 percent in the corresponding month of last year.
5. Non-food, non-energy inflation measured by CPI Core (NFNE) on year-on-year basis decreased to 10.5 percent in September 2012 as compared to 10.8 percent in August 2012. It was 10.6 percent in September 2011.
6. Core NFNE inflation on month-on-month basis increased to 0.4 percent in September 2012 when compared to 0.3 percent a month earlier. The rate of change in Core NFNE in September 2011 was 0.7 percent.
7. WPI inflation on year-on-year basis increased to 7.8 percent in September 2012 when compared to 7.7 percent a month earlier. During September 2011, WPI inflation was recorded at 17.0%.

8. WPI inflation on month-on-month basis decreased to 0.3 percent in September 2012 as compared to 1.0 percent a month earlier. It was 0.2 percent in September 2011.
9. SPI inflation on year-on-year basis increased to 7.5 percent in September 2012 as compared to 7.3 percent in the previous month. It was 8.7 percent in corresponding month of the last year.
10. SPI inflation on month-on-month basis is recorded at 0.9 percent in September 2012 as compared to 1.4 percent a month earlier and 0.7 percent in September 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				
Sep-11	10.5	1.0	9.9	1.6	10.9	0.6	10.6	0.7	11.7	0.6	17.0	0.2	8.7	0.7
Oct-11	11.0	1.4	11.7	1.6	10.4	1.3	10.5	1.4	11.7	1.0	15.4	0.4	8.2	0.8
Nov-11	10.2	0.3	10.0	0.1	10.3	0.4	10.4	0.6	11.5	0.5	12.0	-0.5	5.9	0.6
Dec-11	9.7	-0.7	9.5	-2.2	9.9	0.4	10.2	0.5	10.6	0.3	8.3	-1.3	5.1	-1.4
Jan-12	10.1	1.5	9.2	1.5	10.7	1.6	10.3	1.1	10.4	0.8	8.7	2.3	6.8	1.8
Feb-12	11.0	0.3	10.5	-0.7	11.5	1.0	10.7	0.7	10.7	0.5	7.2	0.6	8.3	0.2
Mar-12	10.8	1.2	9.8	1.5	11.5	0.9	10.9	1.0	10.5	0.8	4.5	0.7	8.4	1.2
Apr-12	11.3	1.8	10.7	2.2	11.6	1.6	10.9	1.4	11.0	1.3	3.8	1.8	9.7	1.8
May-12	12.3	1.1	11.3	0.2	13.0	1.9	11.2	0.8	11.7	0.5	7.1	2.1	10.1	0.5
Jun-12	11.3	0.0	10.3	-0.2	12.0	0.2	11.5	0.7	11.1	0.5	6.4	0.0	11.9	1.8
Jul-12	9.6	-0.2	9.1	1.8	10.0	-1.7	11.3	1.0	10.7	0.7	7.2	0.4	7.3	-2.2
Aug-12	9.1	0.9	8.5	0.9	9.4	0.9	10.8	0.3	10.6	0.4	7.7	1.0	7.3	1.4
Sep-12	8.8	0.8	7.6	0.7	9.7	0.9	10.5	0.4	10.4	0.5	7.8	0.3	7.5	0.9

* NFNE is Non-food non-energy

** SPI for all income groups combined

Fig 1.1: Summary of Price Inflation

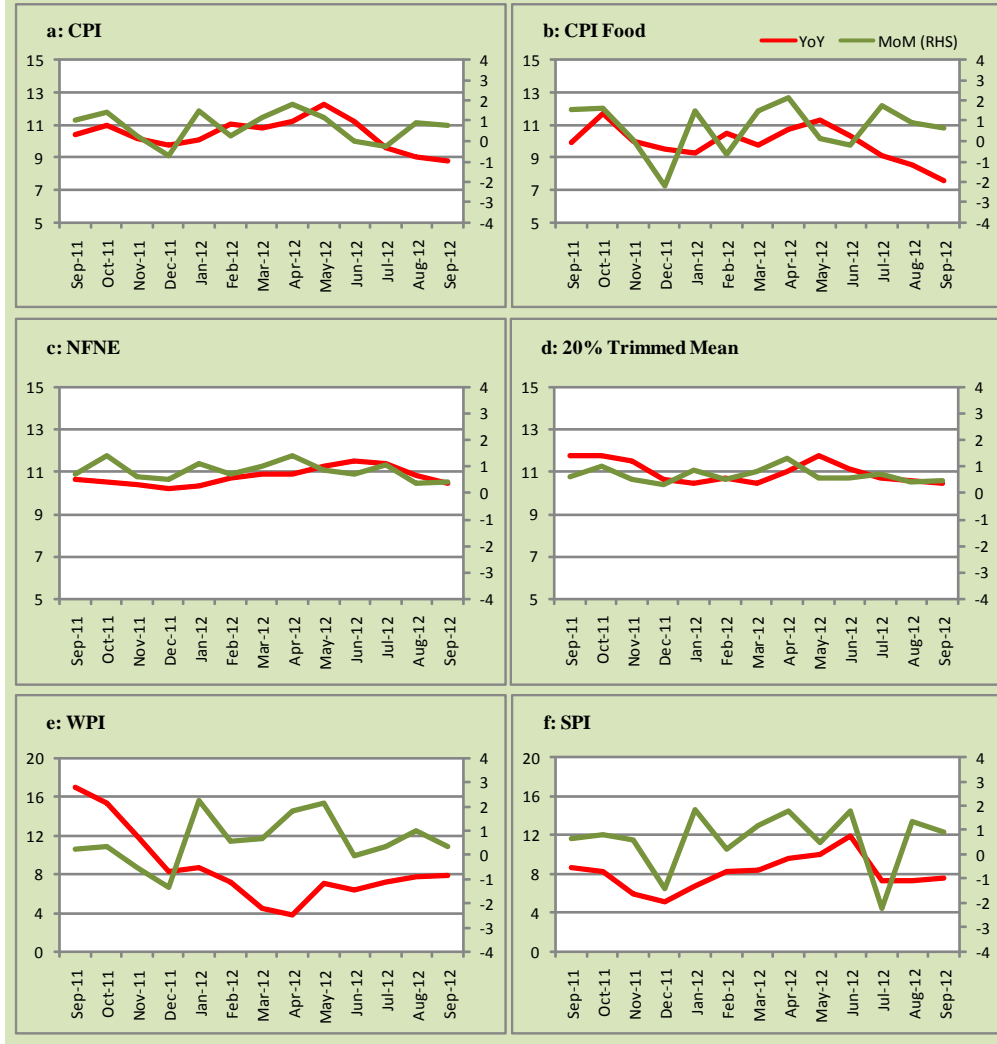


Fig 1.2: Movements in Price Indices (percent)

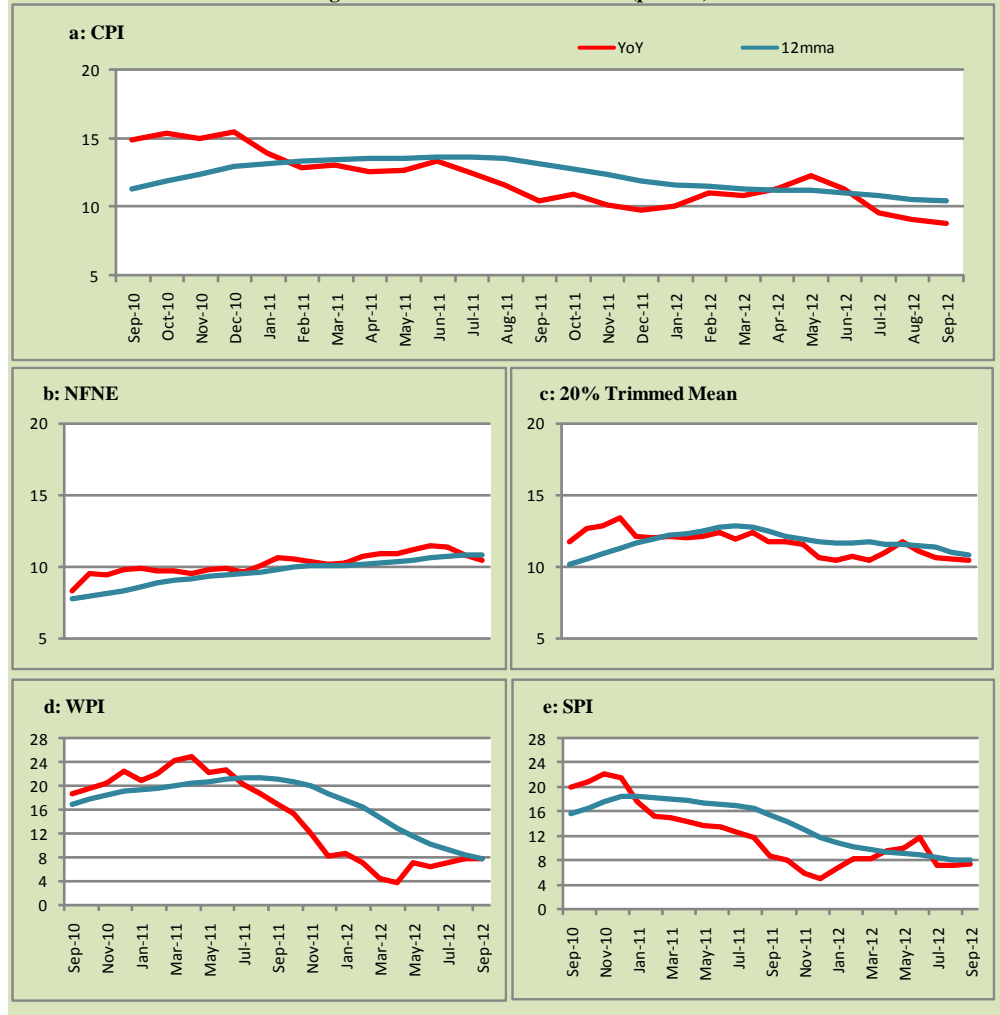
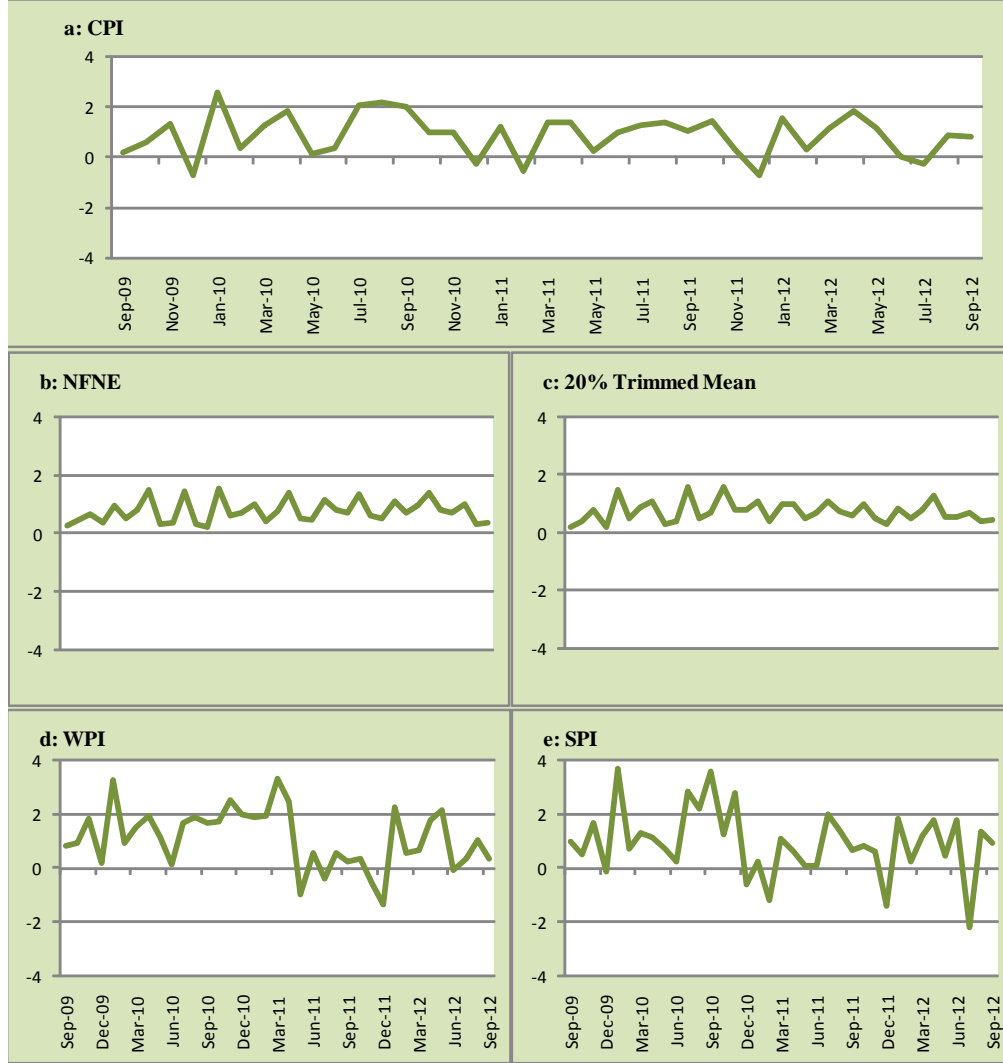
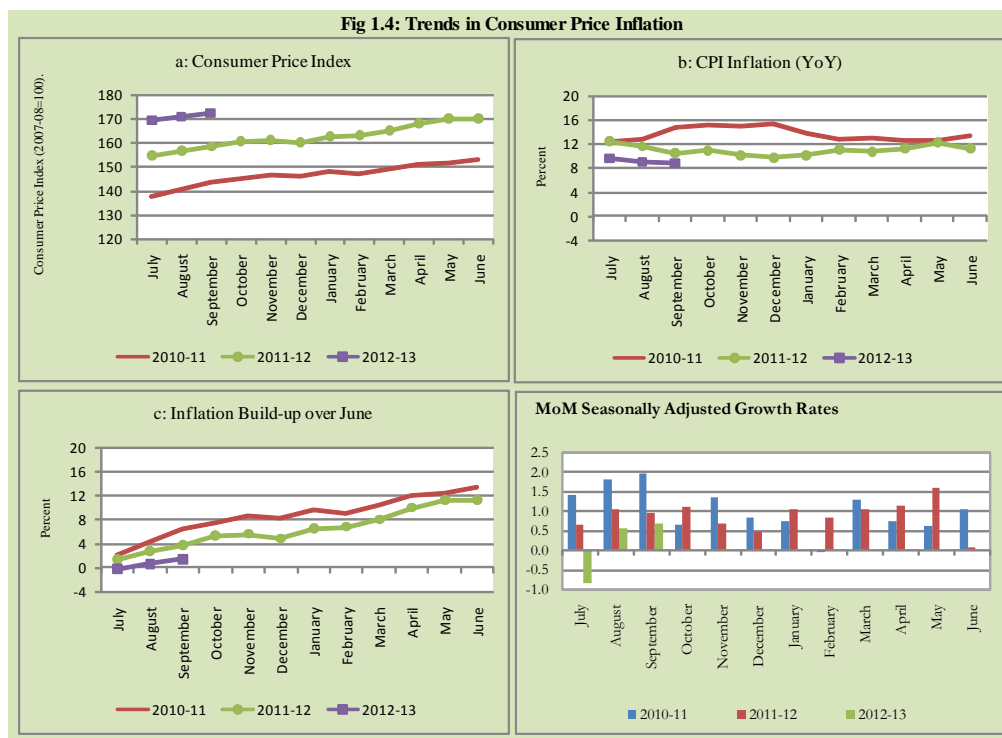


Fig 1.3: Movements in Price Indices -MoM (percent)





2. City wise Inflation

CPI Inflation on year-on-year basis in provincial capitals of Pakistan was lower than overall inflation observed during September 2012 while inflation in federal capital is slightly higher than overall inflation observed in whole country. Among these five cities, the lowest inflation was observed in Peshawar which is 7.2 percent while the highest inflation was observed in Islamabad which is 9.0 percent (Table A6 of annexure-A).

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

	Sep-11		Aug-12		Sep-12	
	MoM	YoY	MoM	YoY	MoM	YoY
Overall CPI	1.0	10.5	0.9	9.1	0.8	8.8
Islamabad	0.5	10.8	1.1	8.6	0.9	9.0
Karachi	1.0	10.1	1.6	7.9	1.7	8.6
Lahore	1.0	8.0	0.8	8.7	0.4	8.0
Peshawar	0.7	8.0	1.1	6.9	1.0	7.2
Quetta	0.0	11.2	1.0	8.8	-0.1	8.7

3. Income Group wise Inflation

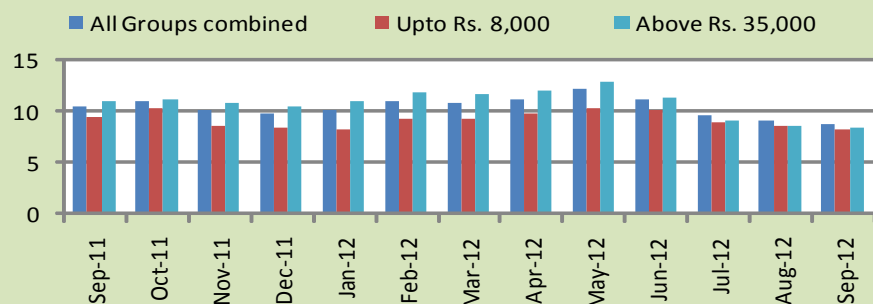
Income group- wise data showed that income group above Rs. 35,000 has higher inflation than the overall inflation in CPI basket during September 2012 for food group. The lowest income group (Up to Rs. 8,000) has the lowest inflation in food group during the month of September 2012 (Table A7 of annexure-A).

Table 3.1 Income Group- wise Inflation (YoY)

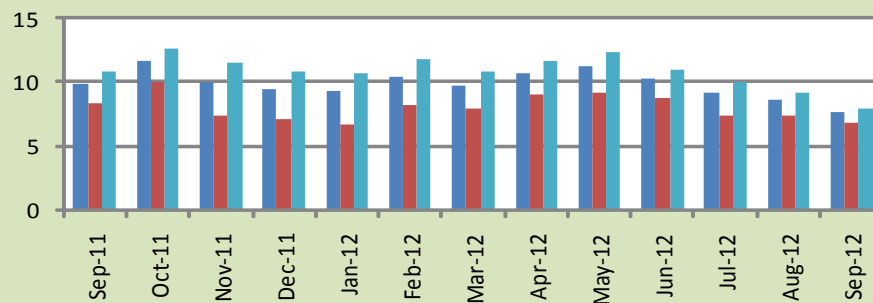
Income Groups	General			Food			Non-food		
	Sep-11	Aug-12	Sep-12	Sep-11	Aug-12	Sep-12	Sep-11	Aug-12	Sep-12
All Groups Combined	10.5	9.1	8.8	9.9	8.5	7.6	10.9	9.4	9.7
Up to Rs. 8,000	9.4	8.6	8.2	8.4	7.4	6.8	10.9	10.3	10.1
Rs. 8,001- 12,000	9.8	9.8	9.3	8.9	7.8	7.1	10.9	12.2	12.0
Rs. 12,001- 18,000	10.0	9.7	9.3	9.3	8.2	7.3	10.7	11.4	11.3
Rs. 18,001- 35,000	10.2	8.3	7.9	9.7	8.6	7.6	10.5	8.1	8.2
Above Rs. 35,000	11.0	8.5	8.4	10.8	9.1	8.0	11.1	8.2	8.7

Fig 3.1: Income Group- wise Inflation

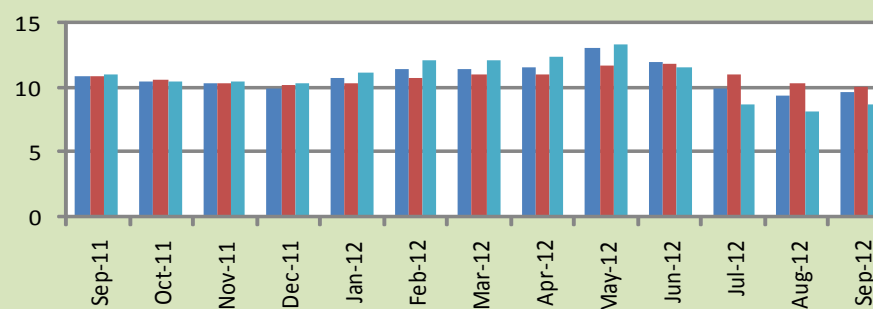
a: CPI Overall Inflation (YoY)



b: CPI Food Inflation (YoY)



c: CPI Non-Food Inflation (YoY)



4. Weighted Contribution

The weighted contribution of food group in the overall inflation decreased to 36.69 percent during September 2012 from 39.99 percent in August 2012. It was 40.43 percent in September 2011.

The weighted contribution of non-food group showed increase to touch 63.31 percent in September 2012 from 60.01 percent in August 2012.

Table 4.1 Weighted Contribution to CPI Inflation (YoY)

Period	Food	Clothing & Footwear	Housing, Water, Elect, Gas & Other Fuel	Transport	Education	Others
Sep-11	40.43	9.57	20.32	10.15	4.56	14.96
Oct-11	45.19	9.37	18.53	9.18	3.71	14.02
Nov-11	41.90	9.98	19.57	9.28	3.97	15.30
Dec-11	40.91	10.44	18.07	10.09	3.95	16.54
Jan-12	38.66	10.37	20.73	10.51	3.64	16.08
Feb-12	39.57	9.23	19.19	12.30	3.73	15.99
Mar-12	38.15	10.69	18.96	12.82	3.79	15.59
Apr-12	40.06	9.63	18.88	12.79	4.01	14.62
May-12	38.26	9.17	23.72	10.54	3.49	14.82
Jun-12	38.05	9.65	25.43	6.22	3.60	17.04
Jul-12	40.17	11.54	15.53	9.68	3.66	19.42
Aug-12	39.99	12.01	12.97	12.64	3.85	18.55
Sep-12	36.69	11.86	13.06	16.16	3.86	18.38

5. Inflation Diffusion Index

Table 5.1 Inflation Diffusion Index - based on MoM change													
	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12
General	56.1	52.2	47.3	37.7	51.5	51.0	57.6	53.1	55.6	27.0	41.4	41.4	48.6
Food & Non-Alcoholic Beverages	57.8	60.9	15.3	9.4	34.2	41.6	40.2	37.6	43.4	-23.4	25.4	47.8	44.2
Alcoholic Beverages & Tobacco	33.3	33.3	50.0	16.7	16.7	-16.7	33.3	66.7	50.0	33.3	100.0	83.3	83.3
Clothing & Footwear	54.2	47.5	76.3	69.5	59.3	49.2	74.6	62.7	76.3	44.1	62.7	76.3	64.4
Housing, Water, Elect, Gas & other Fuels	25.0	61.1	41.7	27.8	69.4	36.1	36.1	58.3	38.9	33.3	33.3	30.6	38.9
Furnishing & Household Equip. Maintenance etc	87.0	89.9	89.9	88.4	87.0	82.6	85.5	92.8	87.0	78.3	68.1	20.3	81.2
Health	23.1	25.6	33.3	28.2	33.3	41.0	38.5	25.6	30.8	41.0	33.3	23.1	41.0
Transport	53.5	48.8	32.6	41.9	53.5	55.8	79.1	48.8	44.2	20.9	39.5	41.9	37.2
Communication	8.3	25.0	25.0	0.0	8.3	33.3	16.7	41.7	8.3	50.0	-25.0	8.3	16.7
Recreation & Culture	51.3	7.7	25.6	12.8	38.5	28.2	46.2	35.9	74.4	17.9	17.9	23.1	10.3
Education	37.5	31.3	62.5	-43.8	25.0	50.0	56.3	50.0	31.3	0.0	25.0	43.8	31.3
Restaurant & Hotels	100.0	66.7	100.0	83.3	83.3	100.0	83.3	100.0	100.0	66.7	100.0	33.3	83.3
Miscellaneous	91.4	51.4	77.1	68.6	65.7	77.1	74.3	51.4	54.3	48.6	60.0	60.0	54.3
NFNE	55.6	49.7	59.8	47.3	58.3	54.7	63.9	57.4	57.7	44.7	47.0	38.8	49.1

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

6. Domestic Commodity Prices

Table 6.1 Inflation in Domestic CPI Food Commodities

Sr. No	Item	Unit	Sep-11		Aug-12		Sep-12	
			YoY	MoM	YoY	MoM	YoY	MoM
1	Wheat	10 Kg	1.27	1.93	7.42	1.37	10.63	4.98
2	Wheat Flour Bag	10 Kg	2.05	2.77	6.88	1.19	10.68	6.43
3	Rice Basmati Sup. Qlty.	Kg	12.14	0.87	18.54	1.00	19.42	1.61
4	Pulse Masoor (Washed)	Kg	-8.63	-0.85	-8.05	-0.33	-6.38	0.95
5	Pulse Moong (Washed)	Kg	3.47	-2.11	-14.67	-0.98	-14.87	-2.34
6	Pulse Mash (Washed)	Kg	-12.16	-1.29	-11.32	-0.49	-9.98	0.21
7	Pulse Gram	Kg	4.66	-0.44	46.13	-1.14	47.86	0.74
8	Vegetable Ghee (Loose)	Kg	28.86	0.55	3.11	-0.66	1.81	-0.71
9	Sugar Refined	Kg	-7.18	1.85	-26.70	-0.96	-28.83	-1.11
10	Milk Fresh (Unboiled)	Ltr	20.68	-0.05	12.85	1.21	13.74	0.74
11	Tea- Tapal Danedar	200 Gm	16.13	-0.23	-1.96	0.00	-1.74	0.00
12	Beef With Bone Av. Qlty.	Kg	19.87	2.48	10.99	0.29	9.61	1.21
13	Mutton Av. Qlty.	Kg	23.72	2.51	12.18	0.35	10.19	0.69
14	Chicken Farm Broiler (Live)	Kg	-6.26	-8.54	-4.66	-11.68	-11.88	-15.46
15	Eggs Farm	Doz	13.77	6.74	5.09	6.23	10.35	12.08
16	Potatoes	Kg	-16.65	1.24	-3.82	6.44	-2.87	2.24
17	Onion	Kg	-44.84	40.02	46.28	28.03	18.86	13.77
18	Tomatoes	Kg	-44.23	15.66	78.64	111.67	32.32	-14.33
19	Ginger	Kg	-30.32	-2.96	-25.59	0.08	-23.22	0.14
20	Garlic	Kg	-37.73	-10.46	-28.11	5.54	-15.82	4.85

7. Global Commodity Prices

Table 7.1 Changes in Major Global Indices (percent)

Item/ Group	Sep-11		Aug-12		Sep-12	
	YoY	MoM	YoY	MoM	YoY	MoM
Overall	27.6	-0.9	-2.4	4.4	-0.8	0.7
Food	13.2	-3.5	2.3	0.7	3.8	-2.1
Metals	25.1	-3.7	-25.9	-5.8	-19.7	4.3
Energy	34.1	0.4	2.9	7.7	3.3	0.9
Agricultural	16.5	-1.1	-13.4	-1.0	-12.0	0.5
Cotton	11.4	2.2	-26.0	0.5	-27.9	-0.3

Source: IMF

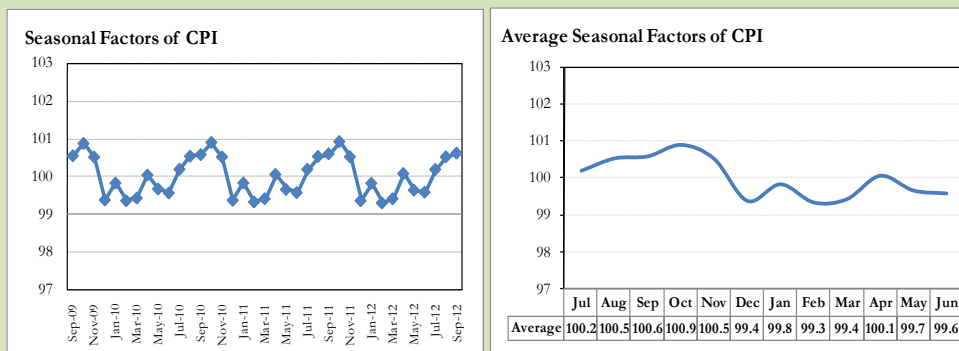
8. Seasonal Adjustment in CPI

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

The changes in consumer prices are normally reported in terms of year-on-year and month-on-month basis. Seasonal adjustment is particularly useful for analyzing month-on-month changes. The monthly data series of Consumer Price Index (CPI) from July 2008 to September 2012 has been taken for seasonal adjustment analysis. The seasonal analysis is carried out without taking trading-day or Islamic calendar month's effects.

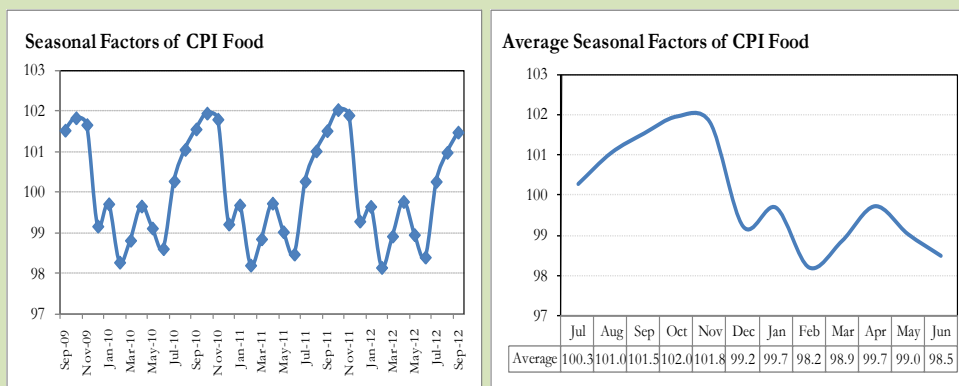
Figure 8.1 reveals that seasonality in CPI has been increasing over the period of last four years. Average seasonal factors reveal strong seasonality during the calendar year. There is an upward seasonality during the months July to November and downward seasonality in the remaining months of the year.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

Fig. 8.1 Seasonal Factors of CPI



Note: Data Available in Annex Table 16.

Fig. 8.2 Seasonal Factors of CPI Food



Note: Data Available in Annex Table 17.

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

Fig. 8.3 Seasonal Plots of CPI

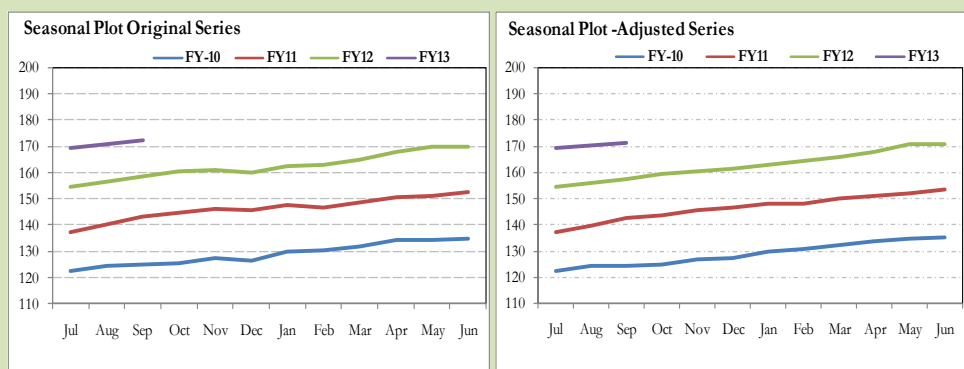
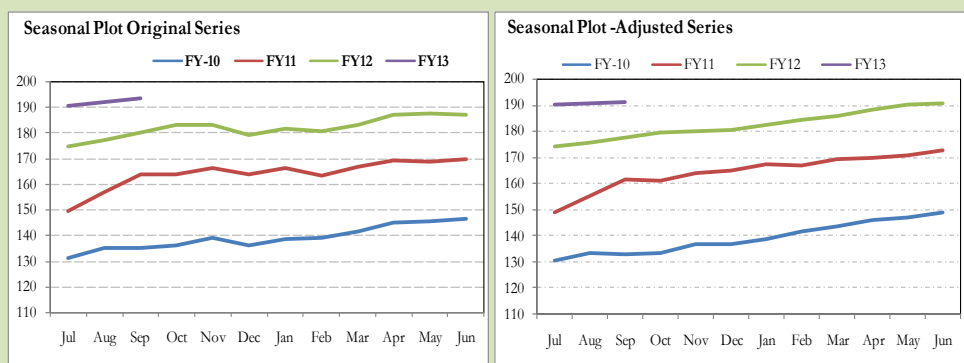


Fig. 8.4 Seasonal Plots of CPI (Food)



Seasonally adjusted CPI for September 2012 stood at 171.37 against 172.44 in original series showing a decrease of 1.07 on account of adjustment of upward seasonality in September 2012.

Seasonally adjusted CPI food group for September 2012 stood at 190.95 against 193.80 in original series showing a decrease of 2.85 on account of adjustment of upward seasonality in September 2012.

Month-on-month change of seasonally adjusted CPI series stood at 0.69% reflecting increase during September 2012 over August 2012 and an increase of 0.79% in original series.

Month-on-month change of seasonally adjusted CPI food group series remained same at 0.20% during September 2012 as in previous month and an increase of 0.69% 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 September 2012 (corresponding to the seasonally adjusted month-on-month rate) is 8.62 percent.

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

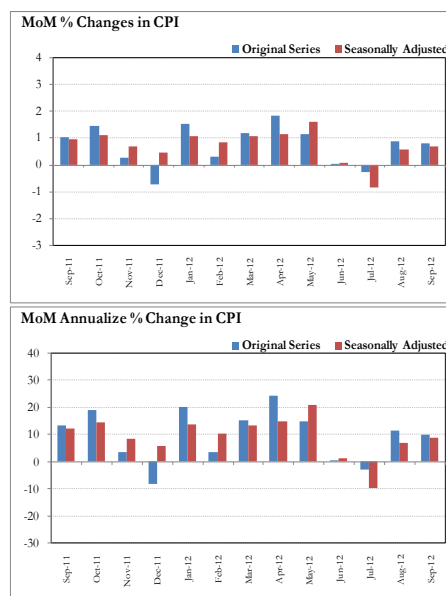
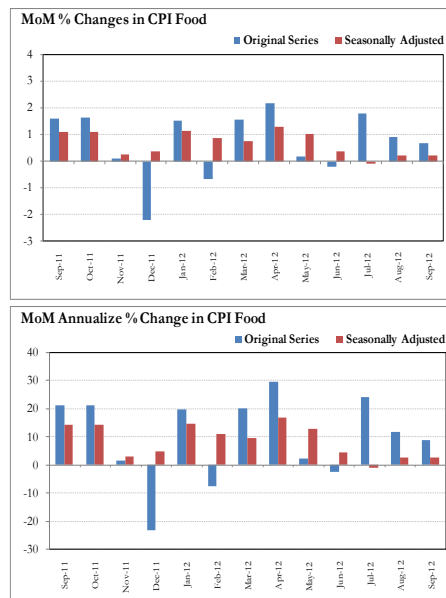


Fig. 8.6 Month-on-Month Percent Changes in CPI Food



Annexure A

Table A1: CPI Inflation by Groups (percent)							
	Weigh	MoM change			YoY change		
		Sep-11	Aug-12	Sep-12	Sep-11	Aug-12	Sep-12
I. Food Group	37.5	1.6	0.9	0.7	9.9	8.5	7.6
Food & Non-Alcoholic Beverages	34.8	1.7	1.0	0.7	9.7	8.1	7.1
Alcoholic Beverages & Tobacco	1.4	0.5	0.3	0.2	7.6	18.1	17.8
Restaurant & Hotels	1.2	1.0	0.2	0.7	18.2	10.1	9.8
II. Non-Food Group	62.5	0.6	0.9	0.9	10.9	9.4	9.7
Clothing & Footwear	7.6	1.4	0.9	0.8	14.9	15.6	14.9
Housing, Water, Elect, Gas & other	29.4	0.1	0.0	0.0	7.9	4.4	4.4
Furnishing & Household Equip. Maint	4.2	0.8	0.0	0.8	14.2	17.4	17.3
Health	2.2	1.4	1.7	1.0	11.5	15.6	15.2
Transport	7.2	0.8	4.5	4.1	14.9	15.4	19.2
Communication	3.2	0.0	0.0	0.0	2.1	0.2	0.2
Recreation & Culture	2.0	0.3	0.3	0.0	5.3	18.8	18.4
Education	3.9	0.4	0.6	0.2	14.1	9.9	9.7
Miscellaneous	2.8	3.2	0.9	1.7	23.8	11.7	10.1
Headline	100.	1.0	0.9	0.8	10.5	9.1	8.8

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-11	Sep-12	Sep-11	Sep-12	Sep-11	Sep-12	Sep-11	Sep-12	Sep-11	Sep-12
I. Food Group	7.6	127	127	15	25	13	20	13	33	86	49
Food & Non-Alcoholic Beverages	7.1	115	115	15	25	13	20	9	27	78	43
Alcoholic Beverages & Tobacco	17.8	6	6	0	0	0	0	4	2	2	4
Restaurant & Hotels	9.8	6	6	0	0	0	0	0	4	6	2
II. Non-Food Group	9.7	348	348	32	39	55	47	71	53	190	209
Clothing & Footwear	14.9	59	59	8	4	3	1	7	4	41	50
Housing, Water, Elect, Gas & other Fuels	4.4	36	36	0	6	3	2	13	11	20	17
Furnishing & Household Equip. Maintenance etc	17.3	69	69	2	2	3	5	17	14	47	48
Health	15.2	39	39	7	10	15	8	3	1	14	20
Transport	19.2	43	43	1	2	7	4	5	4	30	33
Communication	0.2	12	12	4	5	2	4	6	0	0	3
Recreation & Culture	18.4	39	39	7	6	16	11	10	6	6	16
Education	9.7	16	16	3	2	1	6	1	3	11	5
Miscellaneous	10.1	35	35	0	2	5	6	9	10	21	17
Overall	8.8	475	475	47	64	68	67	84	86	276	258

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

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

Table 1: Top Ten Contributors to CPI Inflation (2011) in September 2012					
Items/ Contributors		Weights	YoY Change		Weighted Contribution
			Sep-11	Sep-12	
A. Ranked by Weighted Contribution					
1	House Rent	21.81	7.29	6.52	13.13
2	Milk Fresh	6.68	20.72	13.82	12.50
3	Motor Fuel	3.03	23.63	26.68	9.20
4	Electricity	4.40	5.23	16.39	8.73
5	Wheat Flour	4.16	3.54	9.90	4.79
6	Transport Services	2.70	9.14	14.00	4.76
7	Education	3.94	14.14	9.72	3.86
8	Meat	2.43	21.11	9.80	3.39
9	Household Servant	1.04	15.47	30.36	3.21
10	Fresh Fruits	1.86	14.27	12.52	3.09
Total		52.07			66.65
B. Ranked by Percentage Change					
1	Pulse Gram	0.24	4.66	47.87	1.32
2	Besan	0.15	6.70	42.47	0.76
3	Text Books	0.57	4.66	39.98	2.69
4	Tomatoes	0.43	-44.22	32.32	1.27
5	Household Servant	1.04	15.47	30.36	3.21
6	Motor Fuel	3.03	23.63	26.68	9.20
7	Motor Vehicle Tax	0.11	20.91	25.73	0.25
8	Doctor (MBBS) Clinic Fee	0.59	17.60	23.17	1.51
9	Fire Wood Whole	0.23	26.84	22.22	0.67
10	Utensils	0.32	12.13	21.38	0.70
Total		6.71			21.58
C. Ranked by Weights					
1	House Rent	21.81	7.29	6.52	13.13
2	Milk Fresh	6.68	20.72	13.82	12.50
3	Electricity	4.40	5.23	16.39	8.73
4	Wheat Flour	4.16	3.54	9.90	4.79
5	Education	3.94	14.14	9.72	3.86
6	Communication & Apparatus	3.15	2.03	0.05	0.01
7	Motor Fuel	3.03	23.63	26.68	9.20
8	Transport Services	2.70	9.14	14.00	4.76
9	Meat	2.43	21.11	9.80	3.39
10	Vegetable Ghee	2.07	30.51	4.87	1.13
Total		54.39			61.50
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 8.8 percent in September, 2012.					

Table A3.1: Top Ten Contributors to CPI Food Inflation (YoY) in September 2012					
Items/ Contributors		Weights	YoY Change		Weighted Contribution
			Sep-11	Sep-12	
A. Ranked by Weighted Contribution					
1	Milk Fresh	6.68	20.72	13.82	12.50
2	Wheat Flour	4.16	3.54	9.90	4.79
3	Meat	2.43	21.11	9.80	3.39
4	Fresh Fruits	1.86	14.27	12.52	3.09
5	Cigarette	1.39	7.34	17.98	2.90
6	Cooking Oil	1.75	30.64	13.43	2.45
7	Rice	1.58	22.16	13.07	2.24
8	Ready Made Food	1.23	18.24	9.81	1.56
9	Onion	0.52	-44.85	18.86	1.34
10	Pulse Gram	0.24	4.66	47.87	1.32
Total		21.86			35.56
B. Ranked by Percentage Change					
1	Pulse Gram	0.24	4.66	47.87	1.32
2	Besan	0.15	6.70	42.47	0.76
3	Tomatoes	0.43	-44.22	32.32	1.27
4	Beans	0.03	4.39	21.14	0.07
5	Honey	0.04	21.79	19.25	0.12
6	Onion	0.52	-44.85	18.86	1.34
7	Cigarette	1.39	7.34	17.98	2.90
8	Gram Whole	0.16	27.90	17.67	0.40
9	Milk Powder	0.11	14.81	17.53	0.22
10	Condiments	0.27	18.84	17.35	0.60
Total		3.34			8.99
C. Ranked by Weights					
1	Milk Fresh	6.68	20.72	13.82	12.50
2	Wheat Flour	4.16	3.54	9.90	4.79
3	Meat	2.43	21.11	9.80	3.39
4	Vegetable Ghee	2.07	30.51	4.87	1.13
5	Fresh Fruits	1.86	14.27	12.52	3.09
6	Cooking Oil	1.75	30.64	13.43	2.45
7	Fresh Vegetable	1.71	-1.83	-4.09	-1.12
8	Rice	1.58	22.16	13.07	2.24
9	Cigarette	1.39	7.34	17.98	2.90
10	Chicken	1.36	-6.26	-11.88	-2.01
Total		25.01			29.35
Note: Weighted contribution is estimated by multiplying the weights by the price change of an item; this is then reported as a share in YoY change in CPI Food, which is 7.6 percent in September, 2012.					

Table A3.2: Top Ten Contributors to CPI Non-food Inflation (YoY) in September 2012

Items/ Contributors		Weights	YoY Change		Weighted Contribution
			Sep-11	Sep-12	
A. Ranked by Weighted Contribution					
1	House Rent	21.81	7.29	6.52	13.13
2	Motor Fuel	3.03	23.63	26.68	9.20
3	Electricity	4.40	5.23	16.39	8.73
4	Transport Services	2.70	9.14	14.00	4.76
5	Education	3.94	14.14	9.72	3.86
6	Household Servant	1.04	15.47	30.36	3.21
7	Text Books	0.57	4.66	39.98	2.69
8	Personal Care	1.49	14.63	13.92	2.31
9	Footwear	1.55	1.73	15.94	2.18
10	Tailoring	0.88	15.98	18.09	1.96
Total		41.43			52.03
B. Ranked by Percentage Change					
1	Text Books	0.57	4.66	39.98	2.69
2	Household Servant	1.04	15.47	30.36	3.21
3	Motor Fuel	3.03	23.63	26.68	9.20
4	Motor Vehicle Tax	0.11	20.91	25.73	0.25
5	Doctor (MBBS) Clinic Fee	0.59	17.60	23.17	1.51
6	Fire Wood Whole	0.23	26.84	22.22	0.67
7	Utensils	0.32	12.13	21.38	0.70
8	Cleaning & Laundering	0.21	12.29	20.00	0.47
9	Dopatta	0.44	23.26	19.08	0.93
10	Mechanical Service	0.46	11.29	18.12	0.90
Total		7.00			20.54
C. Ranked by Weights					
1	House Rent	21.81	7.29	6.52	13.13
2	Electricity	4.40	5.23	16.39	8.73
3	Education	3.94	14.14	9.72	3.86
4	Communication & Apparatus	3.15	2.03	0.05	0.01
5	Motor Fuel	3.03	23.63	26.68	9.20
6	Transport Services	2.70	9.14	14.00	4.76
7	Cotton Cloth	1.73	19.57	6.92	1.25
8	Gas	1.58	13.55	-42.09	-11.04
9	Footwear	1.55	1.73	15.94	2.18
10	Personal Care	1.49	14.63	13.92	2.31
Total		45.39			34.40
Note: Weighted contribution is estimated by multiplying the weights by the price change of an item; this is then reported as a share in YoY change in CPI Non-food, which is 9.7 percent in September, 2012.					

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

Groups	Decrease or no change	Subdued increase (Up to 5%)	Moderate increase (5 to 10%)	More than 10% increase
Food & Non-Alcoholic Beverages	Sugar Refined, Ginger, Gur Av.Qlty, Cardamom Small Av.Qlty, Garlic, Pulse Moong (Washed), Radish, Pulse Masoor (Whole)	Curry Powd. National 200 Gm, Tinda, Pickles Ahmed/Mitchelles, Salt Powdered (National/Shan), Cumin seed White National	Pastry Av. Qlty, Samosa (Vegetable), Wheat Flour Avg. Qlty, Beef With Bone Av.Qlty, Cooking Oil (Dalda), Almonds Whole Av.Qlty.	Chillies Powd.National 200 Gm, Pulse Gram, Cloves Loose Av.Qlty, Besan Av. Qlty., Pepper Black National, Gram Whole Black Av Qlty., Tomatoes, Bananas, Ice, Powder Milk Nido 400Gm., Beans (Lal Lobia)
Alcoholic Beverages & Tobacco			Cigarettes Gold Leaf 20,S, Betel Leaves	Cigarettes K-20,S, Cigarettes Capstan 20,S, Cigarettes Morven Gold 20,S, Betel Nuts
Clothing & Footwear	Handkerchief Avg.Qlty Pak, Gents Shoe, Art 1109 Servis, Sports Shoes, Child Shoe Power Lite Bata	Long Cloth 57" Gul Ahmed/Al Karam	Tailoring Coat-Pant Suit, Azarband Cotton Av.Qlty, Shoe Repair Half Sole, Lawn Printed Gul Ahmed/Al Karam	Vest/Shameez (Women) Av.Qlty, Gents Spoung Chappal Bata, Ladies Spoung Chappal Bata, Brassier Sup.Qlty, Brassier Av.Qlty, Ladies Sandal Bata, Pullover Ladies Oxford/Bon, Foot Wear Local (Children), Awami-Suit W&W (Gents)Av.Qlty, Washing Ch. (Kamiz-Shalwar)
Housing, Water, Elect, Gas & other Fuels	Gas Chrg All Over 500 Mmbtu, Gas Chrg Over 300 - 500 Mmbtu, Gas Chrg Overall/ Combined	Water Charges Per House, Cement Blocks (6"X8"X12")	Timber Shesham Log, Elect. Charges Upto 50 Units, House Rent For Q-I, House Rent For Q-II, House Rent For Q-III, House Rent For Q-IV	Elect. Charges 01 - 100 Units, Firewood Whole, Elect. Charges 101 - 300 Units, Electrician Wage Rate, Kerosene Oil, Elect. Charges Overall/ Combined, Unskilled Labour Wage Rat, Elect. Charges 301 - 1000 Units
Furnishing & Household Equip. Maintenance etc	Washing Machine (Singer), Match Box (Small)	Air conditioner 1.5 Ton Pel, Electric Juicer, Bulb Philips 100-Watt, Split Air Conditioner 1.5 Ton, Surf Excel 400 Gms Poly Bag	Washing Powder (Wheel/ Bonus), Bucket(Balti) Plastic Med, S. Steel Plate Avg. Qlty, Harpic, Air Cooler Super Asia, D-Freezer Waves 8 Cft.	Dinner Set Plastic 72 Pcs, Robin Blue (35 Gms), Elect. Iron Philips, Household Servant Female (Part Time), Table Shesham Wood, Lota Plastic (Med Size) Avg. Qlty, Dari Cotton (6X2 1/2), Hand Stiching Needle
Health	Amoxil Capsule 250 Mg., Entox Tab., Septran Tablets, Polyfax Eye Ointment, Calcium Syrup Sandoz	Betnovate-N Ointment 5 Gm, Ventolin Tab. 2Mg., Vicks Vaporub/ Balm, Betnesol Eye Drops, Daonil Tab. 5 Mg., Jouhar Joshanda	Dettol (Medium)	Hydrollin Syrup 120 ML, O.R.S. (Nimcol), Disprin Tab., Panadol Tab. Extra/Plain, Doctor (Mbbs) Clinic Fee, Glycerin Small Bottle, Gripe-Water Woodward's, Cac. 1000 Tab, Saniplast (1 Putty), Blood Test (Cp) Charges
Transport	Gas Cylinder S.Size (L.P.G), Bus Fare Outside City (Non A/C)	Bus Fare Outside City (A/C), Motorcycle Yamaha 100 Cc, Motor Cycle Hero 70 Cc, Motorcycle Honda Cd-70	Minibus Fare Min.Within City, Suzuki Fare Maximum Within City, Air Fare Economy Class., Bicycle With Tyres & Tube	Platform Ticket, CNG, Taxi 4 Seater Fare, Cycle Overhauling Charges, Car Tax For 800 Cc To 1300 Cc, Bus Fare Min (Within City), Tyre Puncture Charges, Petrol Super, Full Tonga Charges, High Speed Diesel Hsd
Communication	Mobile Set Nokia/Sony/Ericsson Av.Qlty, Postal Envelope Domestic	Telephone Set Av. Qlty, T.C.S. Ch. Min.Within Zone, Fax Charges (Local), Mobile Cell Charges		Postal Registration Charges, Postal Envelope For Saudi Arabia, Internet Charges
Recreation & Culture	Video Game Sega 16 Byte, English Book BA/B.Sc, Daily "Dawn", TV License Fee Domestic, Daily "Nawa-e-Waqt", Daily "Jang"	Ball Pen (Local), V.C.P. Panasonic/Lg/National, Dvd/Vcd Player Panasonic/Lg, Radio With C.Player National, Urdu Book BA/B.Sc, Tape Recorder Cassette (Blank)	Pencil Goldfish/Deer, Pen Ink Dollor 57 MI Bottle, Photostat Paper 70 Gm, Eng. Book Ist. Yr Complete Set, Cable Charges, Video Cassette Blank. Tdk/Sony	English Book Class V1, English Book Class IX Or X, Maths Book Class IX or X, Urdu Book Class V (T.B.Board), Cinema A/C High Class, Weekly "Mag", Cinema Non-A/C High Class, Urdu Book Ist Year/ Inter, Maths Book Calss V (T.B.Board), Monthly "Naunehal Digest"
Education	MBA Tuition Fee, Pvt Eng.College Fee (Ist Year)	Pvt Med. College Fee MBBS(Ist Year), Govt. Med. College Fee MBBS Ist Year, I.T. Tuition Fees		Govt. Engg. Coll. Fee Ist Year, Pvt School Fee Eng. Med (Class-X), Pvt School Fee Eng. Med (Class-V), Coaching Charges For Class XI/ XII Science Group
Restaurant & Hotels			Cooked Beef (Av. Hotel), Cooked Dal (Av. Hotel), Tea Prepared (Ordinary)	Chicken Biryani Full/Double, Cooked Mutton (Av. Hotel)
Miscellaneous	Silver Tezabi 24 Ct, Gold Tezabi 24 Ct	Disposable Razor Gillette-II, Hair Color Bigen, Toilet Soap Lux 95 Gms, Shampoo Sunsilk/Pantene 100 MI	Shaving Charges, Toothpowder Dentonic 90 Gms, Wrist Watch Ladies Citizen	Toothpaste Med Size Colgate 70Gms, Wall Clock Quartz Av.Qlty, Face Cream Ponds (Medium), Nail Polish S. Miss/Medora, Artificial Jewellery Set, Beauty Parlor Hair Style Charges

Table A5: City- wise CPI Inflation by Income Groups, September 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	0.5	10.0	0.6	9.5	0.3	10.7	0.3	10.0	0.3	9.5	0.3	10.6
2 Islamabad	0.7	9.9	0.9	8.4	0.4	11.9	0.4	8.9	0.2	8.3	0.5	9.7
3 Lahore	0.6	7.6	0.8	6.7	0.3	8.9	0.3	7.7	0.2	6.8	0.5	8.9
4 Gujranwala	-0.1	7.9	-0.4	8.8	0.5	6.8	-0.3	7.9	-0.9	8.9	0.4	6.8
5 Sialkot	1.3	8.2	1.5	9.0	1.0	7.2	0.8	8.3	0.7	8.9	1.0	7.5
6 Faisalabad	2.2	8.0	3.7	9.1	0.1	6.5	1.7	7.8	3.0	9.0	0.3	6.4
7 Multan	1.6	9.0	2.4	7.5	0.5	11.0	1.5	9.2	2.4	7.8	0.6	10.7
8 Sargodha	1.3	9.6	1.7	6.2	0.9	13.9	1.0	9.7	1.3	6.4	0.7	13.3
9 Bahawalpur	2.1	10.0	3.7	5.9	0.4	15.2	1.6	10.6	2.6	6.6	0.6	15.0
10 Karachi	1.3	7.2	1.8	6.3	0.5	8.5	1.4	7.6	2.2	7.1	0.6	8.3
11 Hyderabad	1.9	6.6	3.1	4.6	0.3	9.5	1.7	7.0	2.8	5.1	0.3	9.5
12 Sukkur	2.3	9.7	3.8	8.8	0.6	10.8	2.1	9.8	3.5	9.2	0.6	10.5
13 Larkana	0.6	8.5	0.8	4.3	0.3	14.4	0.7	9.4	1.1	5.4	0.3	14.2
14 Peshawar	1.2	7.5	1.9	5.8	0.5	9.8	1.1	7.5	1.5	5.9	0.6	9.3
15 Bannu	1.6	10.1	2.3	8.7	0.7	11.9	1.5	10.5	2.3	9.2	0.7	11.8
16 Quetta	-0.6	9.4	-1.1	7.1	0.2	12.6	-0.3	9.5	-0.9	7.1	0.4	12.5
17 Khuzdar	0.5	6.9	0.7	4.6	0.4	9.7	0.6	6.6	0.7	4.4	0.6	9.0
	Rs 12001-18000						Rs 18001-35000					
	General		Food		Non-Food		General		Food		Non-Food	
	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY
1 Rawalpindi	0.4	9.2	0.3	9.4	0.5	9.1	0.3	9.4	-0.1	9.1	0.6	9.6
2 Islamabad	0.2	7.9	-0.2	8.1	0.6	7.7	0.1	7.9	-0.4	8.0	0.7	7.8
3 Lahore	0.4	7.1	0.1	7.4	0.7	6.8	0.3	7.8	-0.3	7.6	0.9	8.1
4 Gujranwala	-0.5	7.6	-1.4	9.8	0.5	5.3	-0.7	8.3	-2.1	10.5	0.5	6.4
5 Sialkot	0.7	7.7	0.3	9.1	1.0	6.2	0.5	8.1	-0.1	9.5	1.0	6.9
6 Faisalabad	1.6	6.9	2.6	9.1	0.6	4.6	1.2	7.4	1.7	9.2	0.7	5.7
7 Multan	1.5	8.2	2.1	7.8	0.8	8.6	1.3	8.8	1.8	8.0	0.8	9.5
8 Sargodha	1.0	9.5	1.0	6.7	0.9	12.2	0.7	10.0	0.5	6.8	0.8	12.6
9 Bahawalpur	1.5	10.1	2.2	6.7	0.8	13.5	1.0	11.5	1.3	6.7	0.8	15.5
10 Karachi	1.4	7.1	2.0	7.4	0.8	6.8	1.3	7.7	1.9	7.4	0.9	7.9
11 Hyderabad	1.7	6.4	2.8	5.6	0.7	7.3	1.6	7.1	2.5	5.9	0.7	8.1
12 Sukkur	2.2	8.9	3.5	9.4	0.9	8.4	2.0	9.9	3.1	10.2	1.0	9.6
13 Larkana	0.7	9.3	0.9	6.2	0.4	12.6	0.8	10.5	1.2	7.7	0.4	13.0
14 Peshawar	1.0	6.4	1.4	5.8	0.7	7.0	0.8	6.9	1.0	5.9	0.7	7.8
15 Bannu	1.5	9.7	2.3	9.3	0.8	10.1	1.3	9.6	2.0	9.7	0.6	9.6
16 Quetta	-0.1	8.7	-0.9	7.3	0.6	10.3	-0.1	8.9	-0.9	7.1	0.7	10.6
17 Khuzdar	0.6	6.6	0.5	4.4	0.7	8.7	0.5	7.2	0.4	4.7	0.6	9.3
	Above Rs 35000						Combined					
	General		Food		Non-Food		General		Food		Non-Food	
	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY
1 Rawalpindi	0.7	10.0	-0.5	9.1	1.3	10.5	0.6	9.9	-0.3	9.2	1.2	10.3
2 Islamabad	0.9	8.9	-0.7	7.6	1.9	9.6	0.9	9.0	-0.7	7.7	2.1	10.0
3 Lahore	0.4	8.6	-0.9	8.3	1.1	8.7	0.4	8.0	-0.4	7.7	1.0	8.2
4 Gujranwala	-0.7	8.5	-2.9	11.2	0.5	7.2	-0.5	8.0	-1.8	10.2	0.4	6.5
5 Sialkot	0.4	7.7	-0.8	9.5	1.0	6.7	0.5	7.8	-0.1	9.4	1.0	6.6
6 Faisalabad	1.0	8.4	0.8	9.5	1.2	7.8	1.4	7.6	2.1	9.3	0.8	6.3
7 Multan	1.3	8.9	1.4	8.1	1.2	9.3	1.4	8.7	1.8	7.9	1.0	9.2
8 Sargodha	0.9	11.3	0.6	7.6	1.1	13.0	0.9	10.0	0.9	6.9	0.9	12.0
9 Bahawalpur	0.6	12.2	0.3	7.8	0.7	14.3	1.2	11.0	1.9	6.9	0.7	13.9
10 Karachi	1.9	9.4	1.4	7.6	2.1	10.4	1.7	8.6	1.7	7.4	1.6	9.6
11 Hyderabad	1.5	7.2	2.2	6.4	1.1	7.5	1.6	6.7	2.6	5.8	0.9	7.5
12 Sukkur	1.7	10.0	2.5	10.4	1.3	9.8	2.0	9.5	3.2	9.7	1.2	9.3
13 Larkana	0.8	10.5	1.2	8.0	0.6	11.7	0.7	9.5	1.0	6.3	0.5	11.7
14 Peshawar	1.1	7.8	0.4	6.0	1.4	8.7	1.0	7.2	1.1	5.9	1.0	8.2
15 Bannu	1.3	8.7	1.2	10.5	1.3	7.8	1.4	9.7	2.0	9.5	1.0	9.9
16 Quetta	0.2	8.8	-0.9	7.0	0.7	9.8	-0.1	8.7	-0.9	7.1	0.6	10.0
17 Khuzdar	0.5	8.6	0.4	5.1	0.6	10.3	0.6	7.0	0.6	4.5	0.6	8.7

Table A6: City- wise CPI Inflation (YoY) September, 2012							
	High inflation cities				Low inflation cities		
	General	Food	Non-food		General	Food	Non-food
Loralai&Cantt	12.8	10.4	14.4	Quetta	8.7	7.1	10.0
Sahiwal	11.3	9.0	12.9	Multan	8.7	7.9	9.2
Mianwali	11.2	8.4	13.3	Karachi	8.6	7.4	9.6
Bahawalpur	11.0	6.9	13.9	Lahore	8.0	7.7	8.2
Bahawalnagar	10.9	8.3	12.7	Gujranwala	8.0	10.2	6.5
Sargodha	10.0	6.9	12.0	Mingora	8.0	5.5	9.7
Nawabshah	9.9	9.8	10.0	Rahim Yar Khan	8.0	5.4	9.9
D.I.Khan	9.9	10.7	9.3	Gawadar	7.9	6.9	8.6
Rawalpindi	9.9	9.2	10.3	Sialkot	7.8	9.4	6.6
Bannu	9.7	9.5	9.9	Turbat	7.7	6.3	8.7
Jhang	9.5	6.3	11.7	Faisalabad	7.6	9.3	6.3
Sukkur	9.5	9.7	9.3	D.G. Khan	7.5	8.3	7.0
Larkana	9.5	6.3	11.7	Abbotabad	7.3	8.3	6.6
Mithi	9.0	3.7	12.9	Peshawar	7.2	5.9	8.2
Mardan	9.0	4.9	11.6	Muzaffargarh	7.2	5.8	8.2
Islamabad	9.0	7.7	10.0	Khuzdar	7.0	4.5	8.7
Vehari	9.0	7.0	10.5	Mir Pur Khas	6.8	3.1	9.5
				Wazirabad	6.8	7.5	6.3
				Hyderabad	6.7	5.8	7.5
				Jehlum	6.7	5.6	7.5
				Attock	6.6	4.7	7.9
				Dera Mrd.Jamali	6.4	5.1	7.4
				Dadu	6.4	5.2	7.2
Note: High inflation refers to equal or above average inflation, and low inflation refers to below average							

Table A7: Income Group-wise Inflation (percent)

	MoM			YoY		
	Sep-11	Aug-12	Sep-12	Sep-11	Aug-12	Sep-12
<u>Up to Rs. 8000</u>						
General	1.5	1.0	1.1	9.4	8.6	8.2
Food	2.1	1.4	1.6	8.4	7.4	6.8
Non-food	0.6	0.4	0.4	10.9	10.3	10.1
<u>Rs. 8001- 12000</u>						
General	1.3	0.9	0.8	9.8	9.8	9.3
Food	1.9	1.2	1.2	8.9	7.8	7.1
Non-food	0.6	0.5	0.4	10.9	12.2	12.0
<u>Rs. 12001- 18000</u>						
General	1.2	0.8	0.7	10.0	9.7	9.3
Food	1.7	1.1	1.0	9.3	8.2	7.3
Non-food	0.6	0.6	0.5	10.7	11.4	11.3
<u>Rs. 18001- 35000</u>						
General	1.1	0.8	0.7	10.2	8.3	7.9
Food	1.6	0.9	0.7	9.7	8.6	7.6
Non-food	0.6	0.7	0.7	10.5	8.1	8.2
<u>Above Rs. 35000</u>						
General	0.9	0.9	0.8	11.0	8.5	8.4
Food	1.4	0.7	0.3	10.8	9.1	8.0
Non-food	0.7	1.1	1.1	11.1	8.2	8.7
<u>All income groups</u>						
General	1.0	0.9	0.8	10.5	9.1	8.8
Food	1.6	0.9	0.7	9.9	8.5	7.6
Non-food	0.6	0.9	0.9	10.9	9.4	9.7

Table A8: SPI Item-wise Price Movements

Sr.No.	Items	Unit	Prices Sep-12	Percentage change	
				YoY	MoM
1	Wheat	10Kg.	288.0	11.1	3.0
2	Wheat Flour Bag	10Kg.	334.5	12.5	8.2
3	Rice Basmati Broken	Kg.	67.3	14.2	1.3
4	Rice Irri-6	Kg.	49.1	8.3	0.4
5	Bread Plain Med. Size (340-400 Gm.)	Each	32.7	6.4	0.3
6	Beef	Kg.	266.4	8.9	0.8
7	Mutton	Kg.	510.0	10.0	0.4
8	Chicken Live (Farm)	Kg.	129.9	-9.5	-11.1
9	Milk Fresh	Litr	64.6	15.2	0.5
10	Curd	Kg.	75.1	13.3	0.2
11	Milk Powdered Nido	500G	290.0	26.2	0.0
12	Egg Hen (Farm)	Doz.	90.8	11.0	13.6
13	Mustard Oil	Kg.	187.8	8.2	0.1
14	Cooking Oil (Tin)	2.5Ltr	550.0	11.1	0.8
15	Veg. Ghee (Tin)	2.5Kg.	539.5	9.0	0.6
16	Veg. Ghee Loose	Kg.	165.0	-0.5	-1.5
17	Bananas	Doz.	74.0	33.4	-23.6
18	Masoor Pulse Washed	Kg.	99.0	-6.7	0.1
19	Moong Pulse Washed	Kg.	117.8	-14.1	-1.4
20	Mash Pulse Washed	Kg.	135.0	-10.5	-0.8
21	Gram Pulse Washed	Kg.	107.6	48.0	-0.8
22	Potatoes	Kg.	31.6	0.6	0.4
23	Onions	Kg.	42.0	30.0	14.6
24	Tomatoes	Kg.	49.5	3.6	-12.1
25	Sugar	Kg.	52.8	-30.0	-2.2
26	Gur	Kg.	73.8	-18.8	1.2
27	Salt Powdered Loose (Lahori)	Kg.	8.6	9.3	0.9
28	Red Chillies Powder Loose	Kg.	289.2	2.2	-2.7
29	Garlic	Kg.	115.8	-6.1	6.0
30	Tea (Yellow Label)	200Gm.	130.5	-0.8	0.0
31	Cooked Beef Plate	Each	65.9	14.1	1.0
32	Cooked Dal Plate	Each	39.2	8.0	0.0
33	Tea Prepared (Sada)	Cup	15.0	9.9	0.5
34	Cigarettes K-2 (20'S)	20'S	32.0	11.7	0.0
35	Long Cloth (Coarse Latha)	Mtr.	141.7	43.7	0.9
36	Shirting	Mtr.	117.3	12.3	0.9
37	Lawn	Mtr.	161.6	64.8	0.4
38	Georgette (Voil Printed)	Mtr.	97.2	17.4	1.5
39	Sandal Gents Bata	Pair	499.0	0.0	0.0
40	Chappal Spong. Bata (Gents)	Pair	179.0	28.8	0.0
41	Sandal Ladies Bata	Pair	399.0	0.0	0.0
42	Electric Charges 1-50	Unit	2.0	7.0	0.0
43	Gas Charges upto 3.3719	Mmbtu	116.0	-7.3	0.0
44	Kerosene	Litr	119.6	21.4	7.7
45	Firewood	40Kg	472.4	16.2	0.1
46	Energy Savor 14 Watts	Each	147.7	8.8	1.0
47	Washing Soap (200-250 Gm.)	Cake	20.7	18.1	2.1
48	Match Box	Each	1.1	2.8	0.0
49	Petrol	Litr	106.1	23.6	10.4
50	Diesel	Litr	114.6	22.6	9.4
51	L.P.G.(11 Kg Cylinder.)	Each	1495.7	8.2	8.1
52	Tele. Local Call	Call	3.6	0.0	0.0
53	Bath Soap Lifebuoy (Standard)	Cake	32.0	6.7	0.0
Maximum				64.8	14.6
Median				9.0	0.4
Minimum				-30.0	-23.6

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

Groups	Decrease or no change	Subdued increase (Up to 5%)	Moderate increase (5 to 10%)	More than 10% increase
Agriculture Forestry & Fishery Products	Stimulant and Spice Crops, Cotton Seeds, Fibre Crops, Poultry, Edible Roots/Potatoes, Dry Fruits, Sugar Crops	Pulses, Raw Animal Material/Wool, Unmanufactured Tobacco, Vegetables	Other Oil Seeds, Maize, Rice	Fresh Fruits, Millet/Bajra, Fish Live Fresh or Chilled, Fuel Wood in Logs, Sorghum/Jowar, Milk From Bovine Animals, Hides and Fur Skins, Raw, Wheat, Eggs
Ores & Minerals, Electricity Gas & Water			Natural Gas Liquefied	Coal not Agglomerated, Electrical Energy, Salt & Pure Sodium Chloride
Food Products, Beverages and Tobacco, Textiles, Apparel and Leather Products	Sugar Refined, Synthetic Carpets, Nylon Yarn, Blended Yarn, Milk and Cream in Solid Form, Chocolate, Woolen Carpets, Sugar Confectionary	Silk and Rayon Fabrics, Quilts, Oil Cakes, Ready Made Garments, Beverages, Mineral Water, Vegetable Oil Refined, Leather Without Hairs, Fruit Juices, Vegetable Ghee, Cotton Yarn, Coffee and Tea	Towels, Hosiery Products, Wheat Flour, Cotton Fabrics, Other Leather N.E.C, Vegetables & Fruit Juices	Spices, Other Cereal Flour, Footwear's, Bed Sheets, Blankets, Processed Liquid Milk, Dairy Products N.E.C, Tobacco Products, Other Fabrics, Dried Fruits & Nuts, Other Food Products, Woven Fabrics, Meat of Animals, Ice Cream
Other Transportable Goods except Metal Products, Machinery and Equipments	Insecticides, Other Glass Articles, Furnace Oil, Dyeing Materials	Chemicals	Soaps & Detergent, Timber, Bricks Blocks and Tiles, Auto Tyres, Fertilizers, Plastic Products, Matches, Mobil Oil, Coke	Paints & Varnishes, Printing Paper, Motor Sprit, Medicines, Pesticides, Diesel Oil, Cement, Ceramics and Sanitary, Kerosene Oil, Hard Board, Glass Sheets, Bed Foams
Metal Product Machinery & Equipment	Tractors, Radio and Television, Pig Iron, Engines and Motors, Vacuum Pumps, Concrete Mixer, Cultivators	Lighting Equipments, Steel Bars & Sheets, Motor Cycles, Electrical Wires, Pipe Fittings, Refrige, Wash & Sew Mach, Iron, Fan, Lathe Machines	Bicycles, Chuff Cutter, Air Conditioners	Motor Vehicles, Steel Products

Table A10: Consumer Price Index Numbers by Major Groups and Composite Commodities				
Items and specification	Weights	Index		
		Sep-11	Aug-12	Sep-12
General	100.00	158.50	171.09	172.44
Food & Non-Alcoholic Beverages.	34.83	180.91	192.43	193.80
1 Wheat	0.35	153.01	161.25	169.28
2 Wheat Flour	4.16	161.83	168.22	177.85
3 Wheat Product	0.10	158.88	164.31	170.63
4 Besan	0.15	165.82	236.13	236.24
5 Rice	1.58	150.80	168.45	170.51
6 Cereals	0.16	182.11	197.29	199.54
7 Bakery & Confectionary	1.16	158.21	170.69	171.51
8 Nimco	0.46	175.56	192.39	195.37
9 Meat	2.43	198.25	215.44	217.68
10 Chicken	1.36	173.78	181.15	153.14
11 Fish	0.30	165.60	184.21	184.50
12 Milk Fresh	6.68	188.77	213.26	214.85
13 Milk Product	0.63	187.08	207.43	208.08
14 Milk Powder	0.11	155.04	181.39	182.22
15 Egg	0.46	166.34	163.77	183.56
16 Mustard Oil	0.10	148.69	160.17	160.47
17 Cooking Oil	1.75	145.15	164.15	164.65
18 Vegetable Ghee	2.07	156.34	163.86	163.96
19 Dry Fruits	0.25	192.58	203.16	200.93
20 Fresh Fruits	1.86	184.54	238.71	207.64
21 Pulse Masoor	0.27	156.76	142.88	143.69
22 Pulse Moong	0.23	262.27	228.62	223.28
23 Pulse Mash (Washed)	0.21	215.49	193.59	193.99
24 Pulse Gram	0.24	162.35	238.30	240.06
25 Gram Whole	0.16	194.09	229.65	228.39
26 Beans	0.03	171.31	207.20	207.52
27 Potatoes	0.46	212.26	201.64	206.16
28 Onion	0.52	188.96	197.41	224.60
29 Tomatoes	0.43	127.24	196.52	168.36
30 Fresh Vegetable	1.71	222.25	172.97	213.15
31 Sugar	1.04	271.34	195.29	193.11
32 Gur	0.02	277.19	222.88	223.95
33 Honey	0.04	200.41	237.13	238.98
34 Sweet Meet	0.25	183.28	201.85	202.90
35 Beverages	1.20	159.43	170.95	170.37
36 Jam, Tomato Ketchup & Pickle	0.25	168.05	173.19	174.05
37 Condiments	0.27	180.93	211.99	212.33
38 Spices	0.54	241.85	267.12	265.88
39 Tea	0.84	200.16	202.38	202.17
Alcoholic Beverages, Tobacco	1.41	161.56	189.91	190.34
40 Cigarette	1.39	161.50	190.12	190.53
41 Betel Leaves & Nuts	0.02	165.08	177.28	178.59
Clothing & Footwear	7.57	146.68	167.23	168.51
42 Cotton Cloth	1.73	145.86	156.24	155.96
43 Woolen Cloth	0.88	160.76	185.59	188.17
44 Ready Made Garment	0.97	145.16	168.36	169.35
45 Woolen Readymade Garments	0.40	140.76	161.44	165.18
46 Hosiery	0.51	152.88	175.66	179.11
47 Dopatta	0.44	153.88	180.00	183.24
48 Cleaning & Laundering	0.21	155.52	185.07	186.62

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

Items and specification	Weights	Index		
		Sep-11	Aug-12	Sep-12
49 Tailoring	0.88	170.67	199.50	201.54
50 Footwear	1.55	123.12	142.67	142.75
Housing, Water, Elect, Gas & Other Fuel	29.41	141.80	147.95	147.99
51 House Rent	21.81	128.63	137.02	137.02
52 Construction Input Item	0.56	179.42	199.78	200.34
53 Construction Wage Rate	0.33	149.87	168.30	169.83
54 Water Supply	0.50	126.90	133.23	133.23
55 Electricity	4.40	168.71	196.37	196.37
56 Gas	1.58	232.00	134.34	134.34
57 Kerosene Oil	0.01	228.72	253.42	269.28
58 Fire Wood Whole	0.23	185.91	226.19	227.21
Furnished H.Hold Equip. & Maint. Etc	4.21	149.49	174.05	175.40
59 Furniture	0.33	144.67	164.07	165.35
60 Household Textile	0.65	147.56	170.63	171.59
61 Household Equipment	0.59	146.77	155.95	156.33
62 Utensils	0.32	143.11	172.04	173.70
63 Plastic Products	0.25	158.01	173.77	174.14
64 Washing Soap & Detergent	0.79	167.77	189.11	190.56
65 Sewing Needle & Dry Cell	0.15	133.80	148.18	149.00
66 Household Servant	1.04	141.08	181.54	183.91
67 Marriage Hall Charges	0.08	163.18	189.00	189.76
Health	2.19	133.64	152.39	153.94
68 Drug Medicine	1.27	123.51	135.65	137.29
69 Medical Equipment	0.01	169.08	191.94	194.08
70 Doctor (MBBS) Clinic Fee	0.59	153.58	187.93	189.17
71 Medical Test	0.32	136.05	152.08	153.85
Transport	7.20	162.97	186.61	194.25
72 Motor Vehicle	0.66	138.69	150.97	151.17
73 Motor Vehicle Accessories	0.24	178.91	203.89	204.52
74 Motor Fuel	3.03	158.88	183.29	201.27
75 Mechanical Service	0.46	152.48	179.46	180.11
76 Motor Vehicle Tax	0.11	120.91	152.02	152.02
77 Transport Services	2.70	175.55	200.12	200.12
Communication	3.22	123.33	123.56	123.56
78 Postal Services	0.07	163.13	171.37	171.43
79 Communication & Apparatus	3.15	122.49	122.55	122.55
Recreation & Culture	2.02	139.53	165.19	165.24
80 Recreation & Culture	0.86	115.29	121.64	121.68
81 Text Books	0.57	164.47	230.37	230.23
82 News Papers	0.19	142.03	154.22	154.22
83 Stationery	0.40	155.26	171.61	171.96
Education	3.94	140.24	153.60	153.87
84 Education	3.94	140.24	153.60	153.87
Restaurants And Hotels	1.23	180.17	196.56	197.85
85 Ready Made Food	1.23	180.17	196.56	197.85
Miscellaneous Goods And Services	2.76	177.73	192.44	195.65
86 Personal Care	1.49	154.84	175.58	176.39
87 Cosmetics	0.39	135.82	148.35	148.59
88 Blades	0.03	153.86	169.56	169.80
89 Personal Equipments	0.84	238.29	243.27	252.20

Table A11: Wholesale Price Index Numbers by Major Groups and Composite Commodities			
Items and Specifications	Index		
	Sep-11	Aug-12	Sep-12
General	178.68	191.99	192.66
Agriculture Forestry & Fishery	190.20	196.79	194.63
1 Wheat	159.16	168.38	177.08
2 Maize	161.05	170.14	174.03
3 Rice	150.25	158.39	162.33
4 Sorghum/Jowar	173.81	201.88	197.09
5 Millet/Bajra	154.11	179.34	192.59
6 Vegetables	252.72	210.80	253.47
7 Fresh Fruits	161.87	280.12	228.22
8 Dry Fruits	183.95	174.44	173.12
9 Cotton Seeds	197.86	174.78	162.42
10 Other Oil Seeds	163.39	176.96	179.64
11 Edible Roots/ Potatoes	228.96	195.16	201.22
12 Stimulant And Spice Crops	209.67	166.85	166.95
13 Pulses	209.04	219.37	216.53
14 Sugar Crops	271.70	267.92	267.92
15 Fibre Crops	219.67	186.59	180.60
16 Unmanufactured Tobacco	167.70	167.67	168.46
17 Poultry	184.50	185.32	152.21
18 Milk From Bovine Animals	185.17	208.85	208.85
19 Eggs	173.69	161.94	192.74
20 Raw Animal Material/Wool	133.72	134.22	135.45
21 Hides And Fur Skins, Raw	122.70	137.25	137.35
22 Fuel Wood In Logs	178.81	203.50	204.59
23 Fishes Live Fresh Or Chilled	141.19	175.63	176.07
Ores/Minerals, Gas & Elect.	170.24	207.36	207.86
24 Coal Not Agglomerated	125.49	196.08	196.08
25 Natural Gas Liquefied	180.26	191.36	192.41
26 Salt & Pure Sodium Chloride	147.42	162.41	162.41
27 Electrical Energy	166.13	226.10	226.10
Food, Beverages, Tobacco, Textiles	176.66	183.90	184.53
28 Meat Of Animals	204.23	225.92	226.71
29 Vegetables & Fruit Juices	174.55	181.33	183.67
30 Dried Fruits & Nuts	192.58	212.89	217.12
31 Fruit Juices	153.88	156.91	156.65
32 Vegetable Oil Refined	152.87	157.66	157.46
33 Vegetable Ghee	141.30	144.58	143.63
34 Oil Cakes	158.18	155.00	164.48
35 Processed Liquid Milk	175.46	205.63	208.43
36 Milk And Cream In Solid Form	176.13	169.45	171.00
37 Ice Cream	153.62	170.00	170.00
38 Dairy Products N.E.C	172.23	204.36	204.36
39 Wheat Flour	149.32	155.10	162.40
40 Other Cereal Flour	146.59	210.99	207.98
41 Sugar Refined	286.18	204.68	198.63
42 Chocolate	101.46	99.19	99.19
43 Sugar Confectionary	100.89	100.40	100.40
44 Coffee And Tea	189.90	190.97	190.66
45 Spices	210.15	304.33	307.94
46 Other Food Products	294.55	317.63	328.55
47 Mineral Water	161.05	166.05	166.05
48 Beverages	131.03	135.30	135.30
49 Tobacco Products	177.04	208.80	208.80
50 Cotton Yarn	199.35	200.46	200.46
51 Nylon Yarn	195.80	176.45	176.45
52 Blended Yarn	204.88	187.05	188.46
53 Woven Fabrics	156.77	169.72	174.25
54 Cotton Fabrics	161.42	174.86	172.55
55 Other Fabrics	145.30	165.74	164.13
56 Silk And Rayon Fabrics	137.50	143.08	143.52

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

Items and Specifications	Index		
	Sep-11	Aug-12	Sep-12
57 Towels	175.89	193.36	193.36
58 Blankets	139.69	165.83	172.59
59 Bed Sheets	156.89	189.27	194.91
60 Quilts	141.26	147.05	147.05
61 Woolen Carpets	107.14	106.55	106.55
62 Synthetic Carpets	155.52	128.41	113.15
63 Hosiery Products	149.26	164.85	163.76
64 Ready Made Garments	123.72	134.39	128.64
65 Leather With Out Hairs	107.45	109.83	109.83
66 Other Leather N.E.C	116.33	122.57	122.57
67 Footwear's	101.48	128.50	128.50
Other Transportable Goods	184.43	202.63	207.14
68 Timber	135.75	145.58	148.07
69 Printing Paper	118.38	153.92	153.92
70 Hard Board	141.67	166.67	166.67
71 Coke	155.28	163.45	163.45
72 Motor Sprit	143.22	160.78	177.23
73 Diesel Oil	226.48	251.19	272.24
74 Kerosene Oil	230.92	252.20	275.06
75 Furnace Oil	190.55	199.36	186.02
76 Mobil Oil	170.23	179.57	179.59
77 Chemicals	141.27	145.05	148.29
78 Dying Materials	106.14	104.26	104.26
79 Fertilizers	241.00	261.86	258.16
80 Pesticides	161.88	184.15	197.39
81 Insecticides	126.62	117.64	117.64
82 Paints & Varnishes	179.04	233.80	233.80
83 Medicines	113.75	134.51	139.44
84 Soaps & Detergent	144.74	157.22	158.01
85 Auto Tyres	166.32	176.49	180.62
86 Plastic Products	179.81	191.29	191.31
87 Glass Sheets	162.39	183.78	190.93
88 Other Glass Articles	194.02	217.98	189.11
89 Ceramics And Sanitary	131.64	154.64	157.32
90 Bricks Blocks And Tiles	158.14	171.37	172.01
91 Cement	150.87	180.22	180.43
92 Bed Foams	122.33	139.83	140.00
93 Matches	115.66	122.82	122.82
Metal Product Machinery & Equip	148.70	158.17	157.74
94 Pig Iron	128.97	128.97	128.97
95 Steel Bars & Sheets	131.53	138.84	137.60
96 Pipe Fittings	139.78	142.07	141.47
97 Steel Products	143.15	160.60	160.60
98 Engines And Motors	109.07	109.07	109.07
99 Vacuum Pumps	115.39	115.39	115.39
100 Air Conditioners	163.43	172.67	172.67
101 Cultivators	184.66	184.66	184.66
102 Chuff Cutter	131.08	138.54	138.54
103 Tractors	180.89	161.96	161.96
104 Lathe Machines	147.51	147.68	147.68
105 Concrete Mixer	138.83	138.83	138.83
106 Refrige,Wash& Sew Mach, Iron,Fan	162.29	164.34	163.64
107 Electrical Wires	155.93	159.57	159.57
108 Lighting Equipments	138.36	144.85	144.85
109 Radio And Television	128.54	132.73	126.46
110 Motor Vehicles	148.17	167.04	167.04
111 Motor Cycles	121.17	125.19	125.19
112 Bicycles	160.14	175.08	175.08

Table A12: Price Indices - Base 2007-08 = 100								
Period		CPI			WPI			SPI *
		Overall	Food	Non-food	Overall	Food	Non-Food	
2008-09		117.03	123.12	113.38	118.93	119.68	118.45	123.26
2009-10		128.85	139.05	122.73	135.40	136.85	134.48	139.84
2010-11		146.45	164.10	135.87	164.17	159.26	167.28	164.02
2011-12		162.57	182.20	150.80	181.28	181.32	181.26	178.67
2010	Jan	129.64	138.54	124.31	136.97	138.94	135.72	141.97
	Feb	130.13	139.06	124.78	138.26	139.65	137.38	143.00
	Mar	131.75	141.71	125.78	140.35	141.71	139.49	144.87
	Apr	134.16	145.24	127.52	143.09	143.76	142.66	146.52
	May	134.34	145.68	127.54	144.73	144.13	145.11	147.54
	Jun	134.83	146.63	127.76	144.97	147.15	143.58	147.90
	Jul	137.62	149.33	130.60	147.38	149.13	146.27	152.10
	Aug	140.63	156.70	131.00	150.19	152.48	148.74	155.44
	Sep	143.49	163.96	131.22	152.74	155.52	150.98	161.00
	Oct	144.90	163.90	133.51	155.40	156.03	155.00	163.01
	Nov	146.34	166.59	134.20	159.34	157.03	160.81	167.56
	Dec	145.90	163.69	135.24	162.48	155.88	166.67	166.52
2011	Jan	147.67	166.52	136.37	165.58	159.08	169.70	166.96
	Feb	146.85	163.56	136.83	168.82	158.33	175.49	164.99
	Mar	148.91	167.10	138.01	174.41	162.92	181.70	166.81
	Apr	150.99	169.25	140.05	178.69	165.46	187.09	167.83
	May	151.33	168.76	140.88	176.97	167.15	183.20	167.98
	Jun	152.78	169.88	142.53	177.98	172.14	181.68	168.09
	Jul	154.72	174.80	142.68	177.26	175.45	178.41	171.45
	Aug	156.89	177.32	144.63	178.24	178.67	177.97	173.86
	Sep	158.50	180.16	145.52	178.68	181.88	176.65	175.02
	Oct	160.79	183.07	147.44	179.34	182.82	177.13	176.45
	Nov	161.25	183.26	148.06	178.39	181.48	176.43	177.53
	Dec	160.12	179.21	148.67	176.01	178.29	174.57	175.04
2012	Jan	162.58	181.90	151.00	179.99	178.95	180.65	178.25
	Feb	163.07	180.69	152.51	180.99	177.56	183.17	178.63
	Mar	164.98	183.46	153.90	182.20	180.41	183.34	180.79
	Apr	168.00	187.43	156.35	185.48	184.45	186.13	184.03
	May	169.93	187.75	159.25	189.46	186.57	191.29	184.88
	Jun	169.99	187.35	159.58	189.37	189.36	189.37	188.14
	Jul	169.57	190.72	156.89	190.05	193.92	187.59	183.98
	Aug	171.09	192.47	158.27	191.99	195.30	189.89	186.47
	Sep	172.44	193.80	159.64	192.66	195.81	190.66	188.17

*: all groups combined

Table A13: International Commodity Prices/ Indices

	Jun-12	Jul-12	Aug-12	Sep-12
Energy				
Crude Oil (US\$ per barrel) *	90.7	96.8	105.3	106.3
IMF Energy Index (2005 = 100)	172.4	181.2	195.1	196.8
WB Energy Index (2005 = 100) @	163.6	173.6	187.3	188.8
Food				
Rice (\$/MT)	606.1	578.4	582.9	590.5
Wheat (\$/MT)	276.2	345.7	349.4	353.4
Sugar (US cent/ pound)	20.1	22.8	20.6	20.2
Palm Oil (\$/MT)	927.6	952.5	930.6	879.5
Soybean Oil (\$/MT)	1,097.8	1,175.3	1,188.5	1,213.3
Non-Food Non-Energy				
Cotton Outlook 'A' Index #	82.2	84.0	84.4	84.2
IMF Metal Price Index (2005 = 100)	185.7	183.2	172.5	179.9
Copper (\$/MT)	7,428.3	7,584.3	7,510.4	8,087.7
Aluminum (\$/MT)	1,885.5	1,876.3	1,843.3	2,064.1
Iron Ore (\$ cents/dry MT)	134.6	127.9	107.8	99.5
Tin (\$/MT)	19,255.4	18,546.1	18,675.6	20,771.3
Nickle (\$/MT)	16,603.7	16,128.4	15,704.0	17,288.0
Zinc (\$/MT)	1,855.9	1,847.8	1,816.3	2,009.9
Lead (\$/MT)	1,851.0	1,881.5	1,897.8	2,177.7
Uranium (\$/MT)	50.8	50.4	49.3	47.7
DAP (\$/MT)	564.4	563.1	559.0	573.0
Urea (\$/MT)	420.0	384.5	374.9	384.5

Source: IMF and World Bank

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

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

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

DAP: Diammonium Phosphate

@ World Bank commodity index for low and middle income countries

Table 14. CPI Data Series Original and Seasonally Adjusted

Original Series				
Period	FY10	FY11	FY12	FY13
Jul	122.46	137.62	154.72	169.57
Aug	124.68	140.63	156.89	171.09
Sep	124.89	143.49	158.50	172.44
Oct	125.64	144.90	160.79	
Nov	127.30	146.34	161.25	
Dec	126.37	145.90	160.12	
Jan	129.64	147.67	162.58	
Feb	130.13	146.85	163.07	
Mar	131.75	148.91	164.98	
Apr	134.16	150.99	168.00	
May	134.34	151.33	169.93	
Jun	134.83	152.78	169.99	
Seasonally Adjusted Series				
Jul	122.20	137.36	154.42	169.25
Aug	124.01	139.88	156.05	170.20
Sep	124.21	142.66	157.55	171.37
Oct	124.55	143.60	159.31	
Nov	126.65	145.58	160.41	
Dec	127.15	146.82	161.15	
Jan	129.86	147.92	162.87	
Feb	130.96	147.84	164.22	
Mar	132.50	149.78	165.95	
Apr	134.10	150.90	167.87	
May	134.78	151.85	170.54	
Jun	135.42	153.43	170.69	

Table 15. CPI Food Data Series Original and Seasonally Adjusted

Original Series				
Period	FY10	FY11	FY12	FY13
Jul	130.97	149.33	174.80	190.72
Aug	134.95	156.70	177.32	192.47
Sep	135.20	163.96	180.16	193.80
Oct	135.98	163.91	183.07	
Nov	138.87	166.59	183.26	
Dec	135.81	163.69	179.21	
Jan	138.54	166.52	181.90	
Feb	139.06	163.56	180.69	
Mar	141.71	167.10	183.46	
Apr	145.24	169.25	187.43	
May	145.69	168.77	187.75	
Jun	146.63	169.88	187.35	
Seasonally Adjusted Series				
Jul	130.62	148.90	174.31	190.20
Aug	133.47	155.05	175.52	190.58
Sep	133.15	161.43	177.45	190.95
Oct	133.52	160.76	179.40	
Nov	136.58	163.63	179.82	
Dec	136.95	164.98	180.49	
Jan	138.93	167.03	182.53	
Feb	141.49	166.55	184.09	
Mar	143.40	169.03	185.45	
Apr	145.73	169.70	187.84	
May	146.98	170.42	189.72	
Jun	148.69	172.50	190.38	

Table 16: CPI Monthly & Average Seasonal Factors					
Period	FY10	FY11	FY12	FY13	Average
Jul	100.21	100.19	100.19	100.19	100.2
Aug	100.54	100.54	100.53	100.52	100.5
Sep	100.55	100.58	100.60	100.62	100.6
Oct	100.88	100.90	100.93		100.9
Nov	100.52	100.52	100.53		100.5
Dec	99.38	99.38	99.36		99.4
Jan	99.83	99.83	99.82		99.8
Feb	99.36	99.33	99.30		99.3
Mar	99.43	99.42	99.41		99.4
Apr	100.04	100.06	100.08		100.1
May	99.67	99.66	99.64		99.7
Jun	99.57	99.58	99.59		99.6

Table 17: CPI Food Monthly & Average Seasonal Factors					
Period	FY10	FY11	FY12	FY13	Average
Jul	100.27	100.29	100.28	100.28	100.3
Aug	101.11	101.07	101.03	100.99	101.0
Sep	101.54	101.57	101.53	101.49	101.5
Oct	101.85	101.96	102.05		102.0
Nov	101.68	101.81	101.91		101.8
Dec	99.17	99.22	99.29		99.2
Jan	99.72	99.69	99.66		99.7
Feb	98.28	98.21	98.15		98.2
Mar	98.82	98.86	98.93		98.9
Apr	99.67	99.74	99.78		99.7
May	99.12	99.03	98.96		99.0
Jun	98.62	98.48	98.41		98.5

Table 18: CPI Month-on-Month Change Original & Seasonally Adjusted				
Original Series				
Period	FY10	FY11	FY12	FY13
Jul	1.51	2.07	1.27	-0.25
Aug	1.81	2.19	1.40	0.90
Sep	0.17	2.03	1.03	0.79
Oct	0.60	0.98	1.44	
Nov	1.32	0.99	0.29	
Dec	-0.73	-0.30	-0.70	
Jan	2.59	1.21	1.54	
Feb	0.38	-0.56	0.30	
Mar	1.24	1.40	1.17	
Apr	1.83	1.40	1.83	
May	0.13	0.23	1.15	
Jun	0.36	0.96	0.04	
Seasonally Adjusted Series				
Jul		1.43	0.65	-0.85
Aug	1.48	1.84	1.05	0.56
Sep	0.16	1.99	0.96	0.69
Oct	0.28	0.66	1.12	
Nov	1.68	1.38	0.69	
Dec	0.40	0.85	0.46	
Jan	2.13	0.75	1.07	
Feb	0.85	-0.05	0.83	
Mar	1.17	1.31	1.06	
Apr	1.21	0.75	1.15	
May	0.50	0.62	1.59	
Jun	0.47	1.04	0.09	

Table 19: CPI Food Month-on-Month Change Original & Seasonally Adjusted Series				
Original Series				
Period	FY10	FY11	FY12	FY13
Jul	3.32	1.84	2.90	1.80
Aug	3.04	4.93	1.44	0.92
Sep	0.19	4.64	1.60	0.69
Oct	0.58	-0.04	1.61	
Nov	2.12	1.64	0.11	
Dec	-2.20	-1.74	-2.21	
Jan	2.01	1.73	1.50	
Feb	0.38	-1.77	-0.67	
Mar	1.91	2.16	1.53	
Apr	2.49	1.28	2.16	
May	0.31	-0.28	0.17	
Jun	0.65	0.66	-0.21	
Seasonally Adjusted Series				
Jul		0.14	1.05	-0.10
Aug	2.19	4.13	0.69	0.20
Sep	-0.24	4.11	1.10	0.20
Oct	0.27	-0.41	1.10	
Nov	2.30	1.78	0.24	
Dec	0.27	0.82	0.37	
Jan	1.45	1.25	1.13	
Feb	1.85	-0.29	0.86	
Mar	1.35	1.49	0.74	
Apr	1.62	0.39	1.29	
May	0.86	0.43	1.00	
Jun	1.16	1.22	0.35	

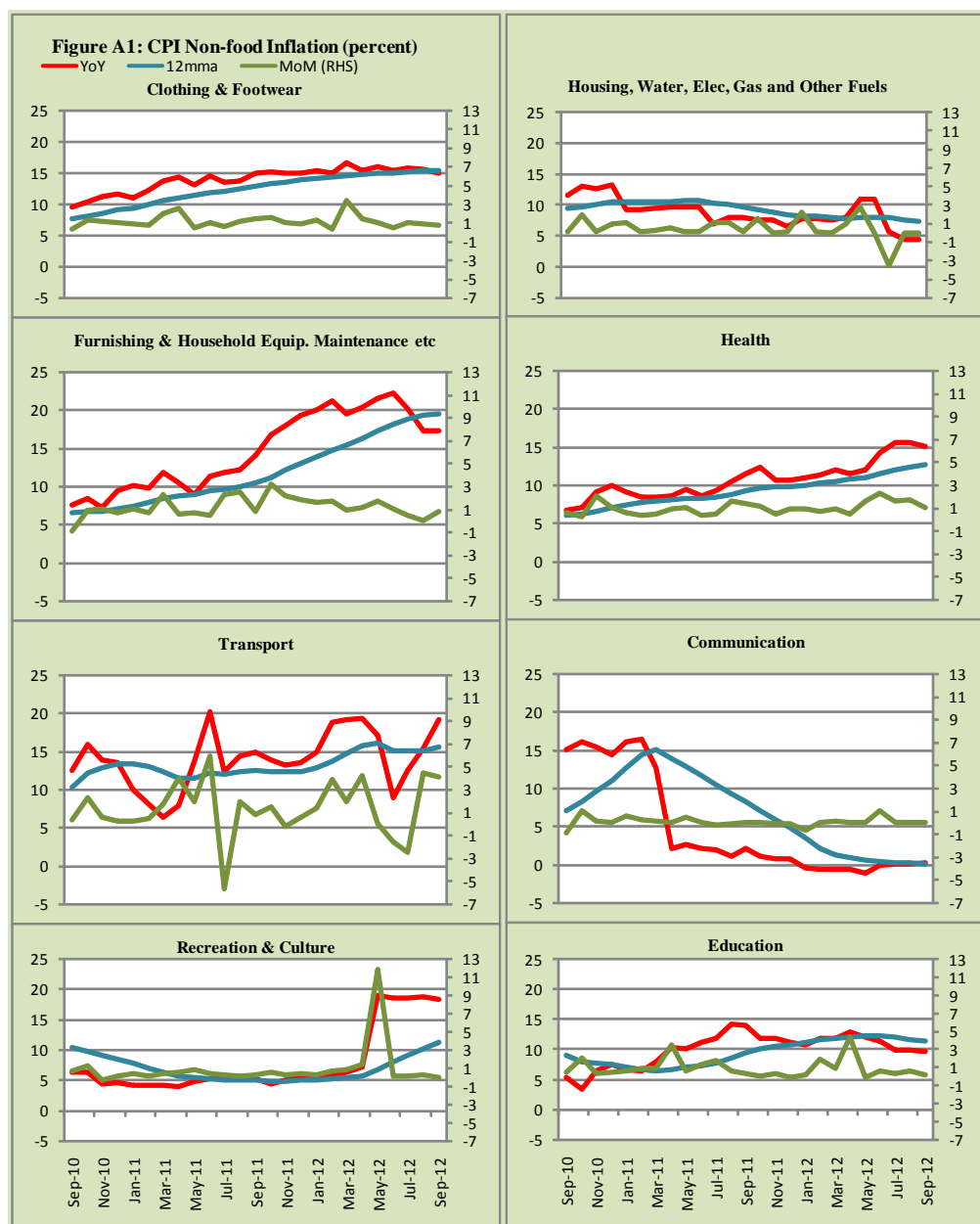


Figure A2: Frequency Distribution of Price Changes of CPI Items, September 2012

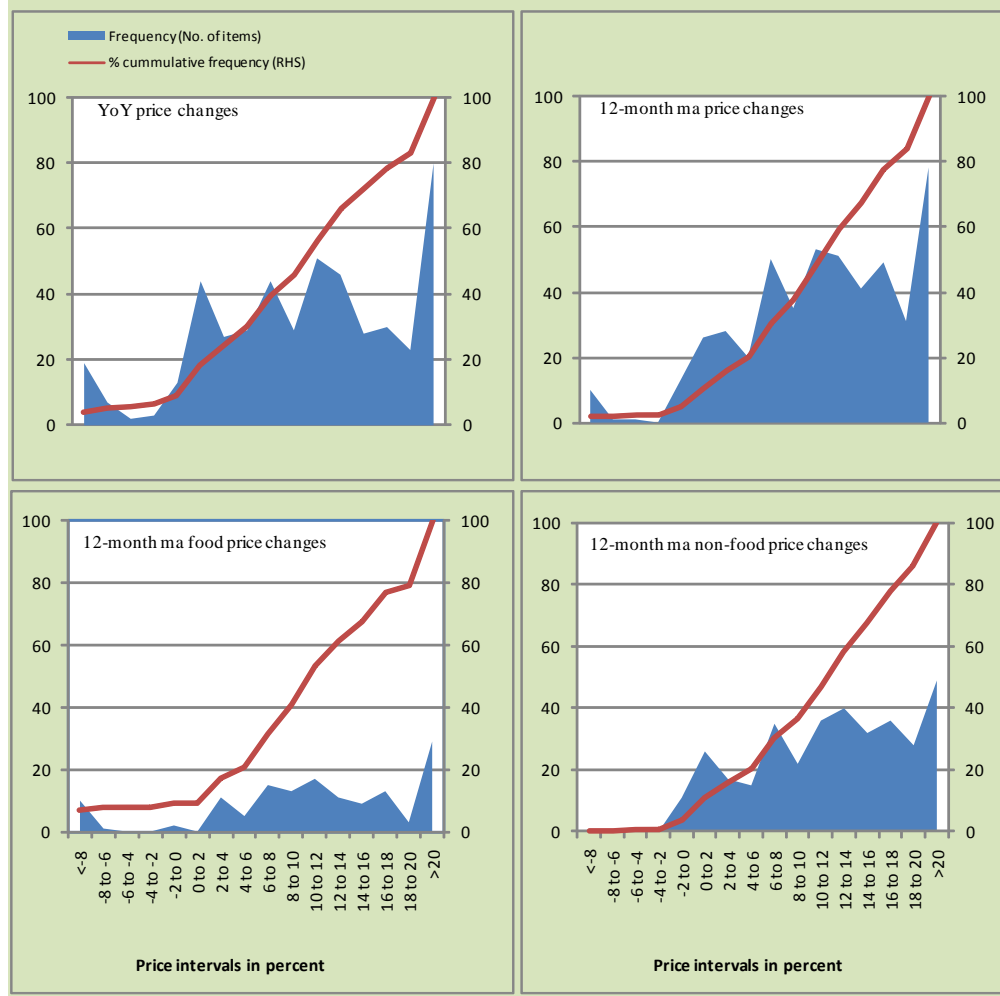
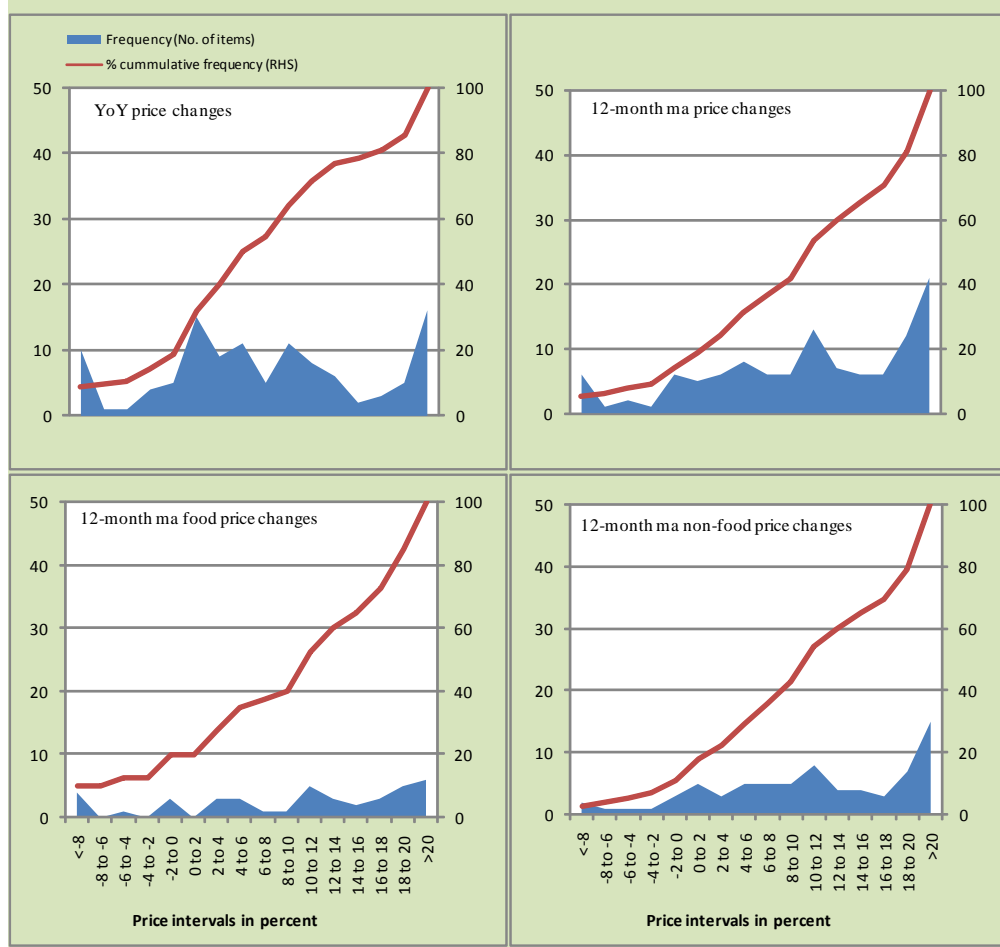
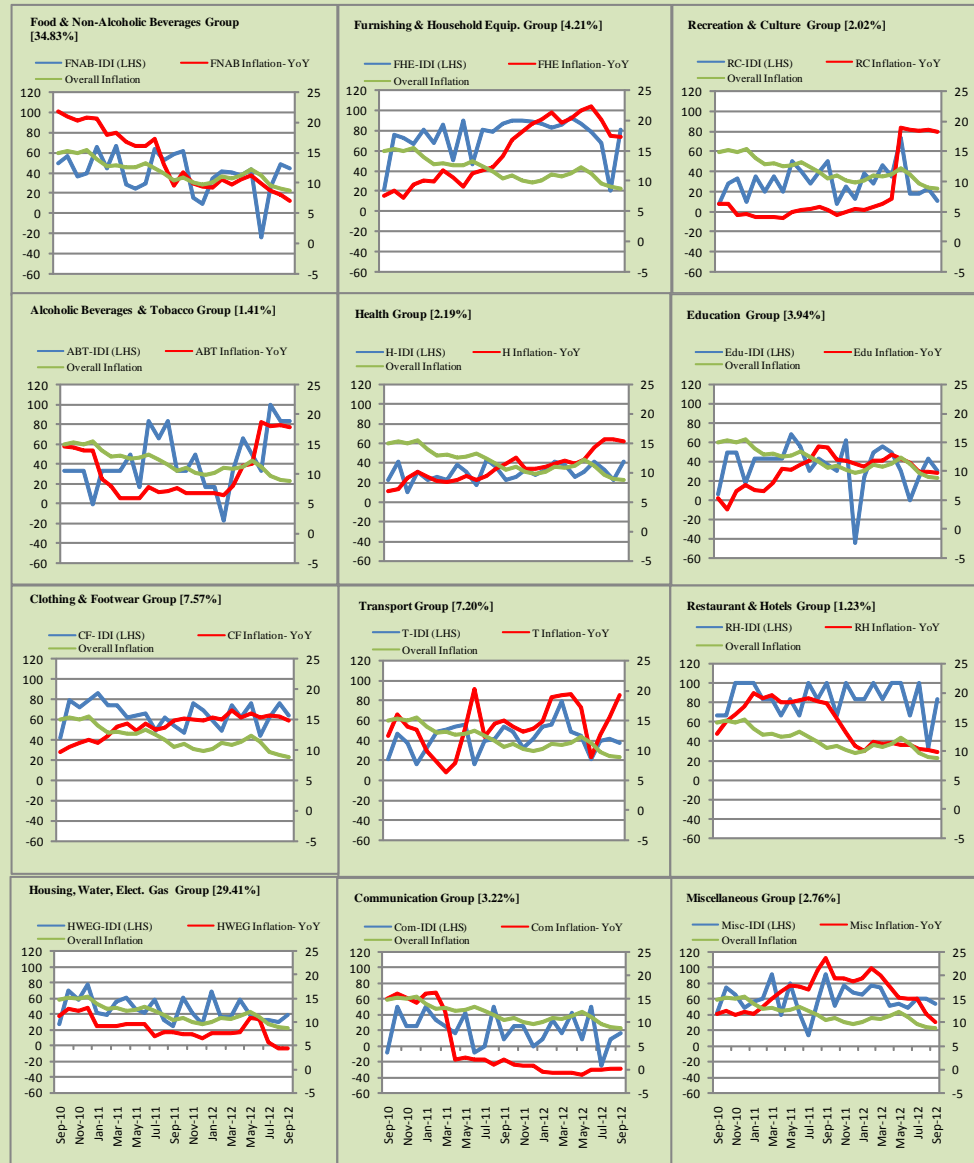


Figure A3: Frequency Distribution of Price Changes of WPI Commodities, September 2012



Inflation Monitor, September 2012

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



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

Annexure B

Technical Notes

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Where C_{it} : Contribution of i^{th} item to the overall inflation

$$\alpha_{it-12} = \frac{I_{it-12}}{I_{t-12}} ; \text{ i.e. ratio of item's index to overall index in the}$$

reference month

w_i : Weights of i^{th} item

π_{it} : Inflation of i^{th} item

π_t : Overall inflation

10. Annualized rate of inflation (based on a month-on-month rate π) is computed as follows

$$\text{Annualized } \pi = \left(\left(1 + \frac{\pi}{100} \right)^{12} - 1 \right) \times 100$$

Methodology for Estimating Inflation Diffusion Index for Pakistan

We constructed an index to measure the spread of inflation in the 487 commodities of the CPI basket. It is based on month-on-month (MoM) change in the prices of these commodities and can be obtained by estimating what is known as an ‘inflation diffusion index’ (IDI) as below:

$$\frac{\text{Number of Commodities with } \uparrow \text{ in MoM change} - \text{Number of Commodities with } \downarrow \text{ in MoM change}}{\text{Number of Commodities for which prices are reported}}$$

Thus, it is the difference between the share of items with increasing prices (i.e. depicting inflation) and the share of items with falling prices (i.e. depicting deflation) in CPI amongst the commodities for which prices have altered or remained constant¹.

Based upon commodity level price data from July 2001 to February 2011 we computed inflation diffusion indices overall (general) CPI basket and for all groups in CPI basket (except House Rent Index being single item). A simple analysis² suggests that IDI is a leading indicator for Pakistan’s YoY inflation.

¹ We do not observe the prices of certain commodities (like the seasonal items) during certain periods of time. To calculate the inflation diffusion index we consider the commodities for which prices have been reported (irrespective of changed or not) during the month under review.

² Formal test shows one way ‘Granger’ causality from IDI to YoY inflation.