

Inflation Monitor

July 2014



State Bank of Pakistan

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Review

Inflation in Brief

1. Headline CPI inflation (2007-08=100) is recorded at 7.9 percent on year-on-year basis in July 2014 as compared to 8.2 percent in the previous month and 8.3 percent in the corresponding month of last year.
2. CPI inflation on month-on-month basis is recorded at 1.7 percent in July 2014 as compared to 0.6 percent in the previous month and 2.0 percent during the corresponding month of last year. Seasonally adjusted month-on-month CPI inflation is recorded at 0.9 percent in July 2014 compared to 0.7 percent in the previous month.
3. Core inflation (trimmed) on year-on-year basis decreased to 7.6 percent in July 2014 as compared to 7.9 percent in the previous month and 7.8 percent during the corresponding month of last year.
4. On month-on-month basis, the Core inflation (trimmed) is recorded at 0.8 percent in July 2014 as compared to 0.3 percent in the previous month and 1.2 percent during the corresponding month of last year.
5. Non-food, non-energy inflation measured by CPI Core (NFNE) on year-on-year basis decreased to 8.3 percent in July 2014 as compared to 8.7 percent in the previous month. It was 8.2 percent in the corresponding month of last year.
6. Core NFNE inflation on month-on-month basis increased to 1.1 percent in July 2014 as compared to 0.4 percent in the previous month. A 1.5 percent increase in Core NFNE index was observed in July 2013.
7. WPI inflation on year-on-year basis decreased to 6.6 percent in July 2014 when compared to 7.7 percent a month earlier. During July 2013, WPI inflation was recorded at 6.5%.

8. WPI inflation on month-on-month basis is recorded at 0.5 percent in July 2014 as compared to 1.4 percent in the previous month and 1.6 percent during the corresponding month of last year.
9. SPI inflation on year-on-year basis decreased to 7.6 percent in July 2014 as compared to 8.0 percent in the previous month. It was 9.1 percent in the corresponding month of last year.
10. SPI inflation on month-on-month basis is recorded at 1.8 percent in July 2014 as compared to 1.2 percent in the previous month and 2.1 percent in the corresponding month of last year.

1.1 A New Measure of Core Inflation

A new method of permanently excluding relatively volatile commodities from CPI basket in Pakistan has been developed by SBP. This is achieved by making use of trimming approach on past data on monthly CPI changes to isolate a Relatively Stable Component of CPI (RSC-CPI) as a new measure of core inflation. This method ensures inclusion of both food and non-food commodities that show persistent price behavior in Pakistan (see technical notes for details). Developments in core inflation measured by RSC- CPI for the month of July 2014 are described below:

- Core inflation based on new measure RSC on year-on-year basis is recorded at 8.4 percent in July 2014 compared to 9.1 percent in the previous month and 8.2 percent in the corresponding month of last year.
- Core RSC inflation on month-on-month basis is recorded at 1.0 percent in July 2014 compared to 0.9 percent in the previous month and 1.6 percent in the corresponding month of last year.

Monthly CPI, WPI and SPI data is summarized in the following table.

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		RSC**					
	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM
Jul-13	8.3	2.0	9.2	3.0	7.6	1.3	8.2	1.5	7.8	1.2	8.2	1.6	6.5	1.6	9.1	2.1
Aug-13	8.5	1.2	10.3	2.0	7.3	0.6	8.5	0.6	7.9	0.6	8.4	0.6	8.3	2.6	9.0	1.2
Sep-13	7.4	-0.3	7.9	-1.5	7.0	0.6	8.7	0.6	7.6	0.6	8.5	0.5	8.7	0.7	7.9	-0.1
Oct-13	9.1	2.0	9.8	1.7	8.6	2.2	8.4	0.9	9.0	0.8	8.4	0.8	9.8	1.1	10.9	2.3
Nov-13	10.9	1.3	13.0	2.6	9.4	0.3	8.5	0.4	9.2	0.4	8.5	0.3	10.4	0.2	14.6	3.4
Dec-13	9.2	-1.3	9.3	-3.3	9.1	0.2	8.2	0.2	8.7	0.4	8.4	0.3	8.9	-1.0	12.1	-1.9
Jan-14	7.9	0.5	7.2	0.0	8.4	0.9	8.1	1.0	8.2	0.6	8.1	0.8	8.1	0.5	9.5	-0.8
Feb-14	7.9	-0.3	7.6	-1.0	8.2	0.2	7.8	0.2	8.1	0.2	8.0	0.3	7.6	-0.1	9.3	-0.2
Mar-14	8.5	1.0	9.3	2.1	8.0	0.2	7.6	0.3	8.1	0.3	7.8	0.2	7.7	0.3	10.5	1.7
Apr-14	9.2	1.7	9.9	2.0	8.7	1.5	8.5	1.9	9.0	0.9	8.5	1.7	7.0	0.1	10.3	-0.1
May-14	8.3	-0.3	7.4	-1.2	9.0	0.4	8.7	0.5	8.3	0.3	8.8	0.6	7.3	-0.1	9.3	-0.9
Jun-14	8.2	0.6	7.4	1.0	8.9	0.3	8.7	0.4	7.9	0.3	9.1	0.9	7.7	1.4	8.0	1.2
Jul-14	7.9	1.7	7.0	2.7	8.5	1.0	8.3	1.1	7.6	0.8	8.4	1.0	6.6	0.5	7.6	1.8
* NFNE is Non-food non-energy ** Relatively Stable Component of CPI *** SPI for all income groups combined																

* NFNE is Non-food non-energy

** Relatively Stable Component of CPI

*** SPI for all income groups combined

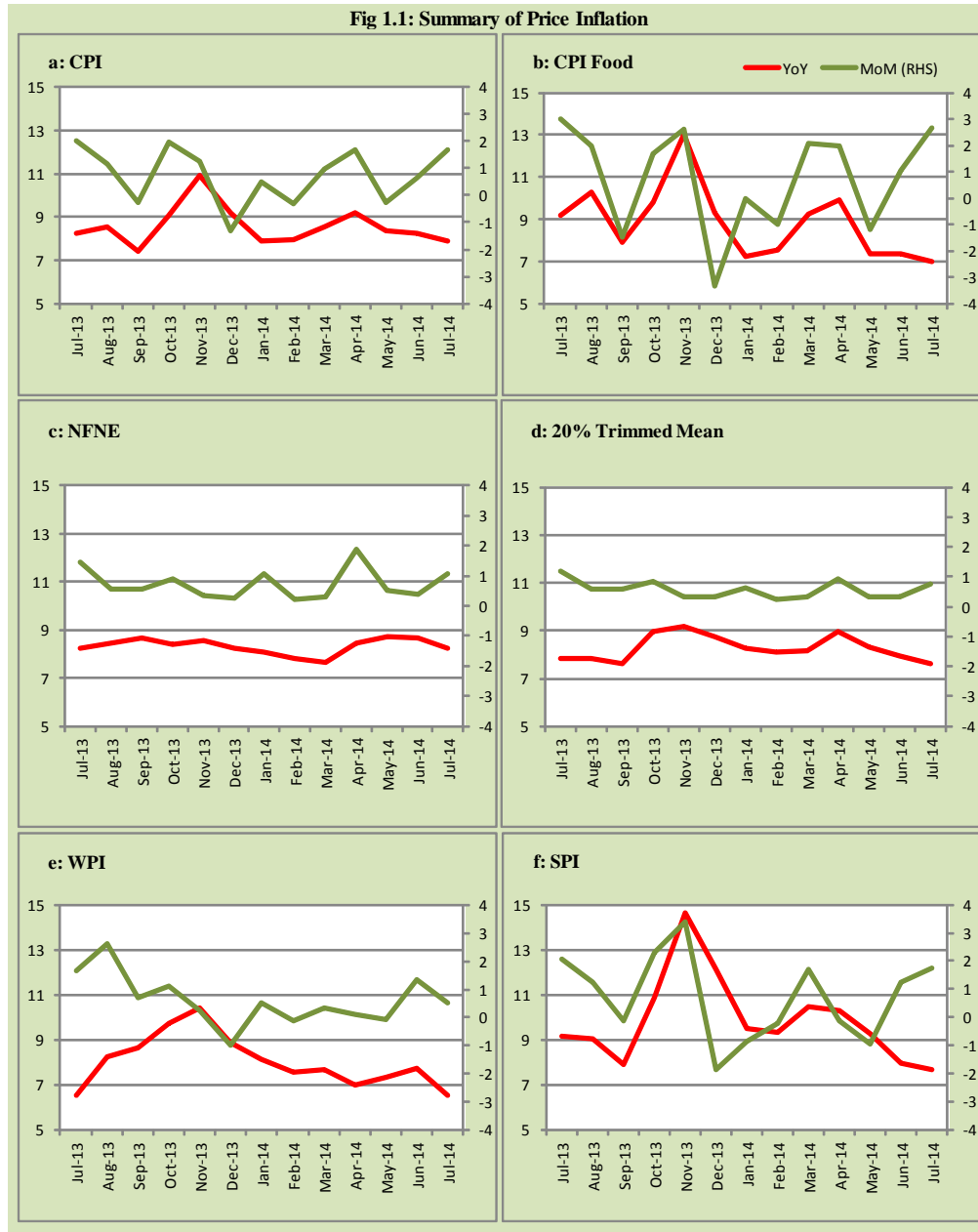


Fig 1.2: Movements in Price Indices (percent)

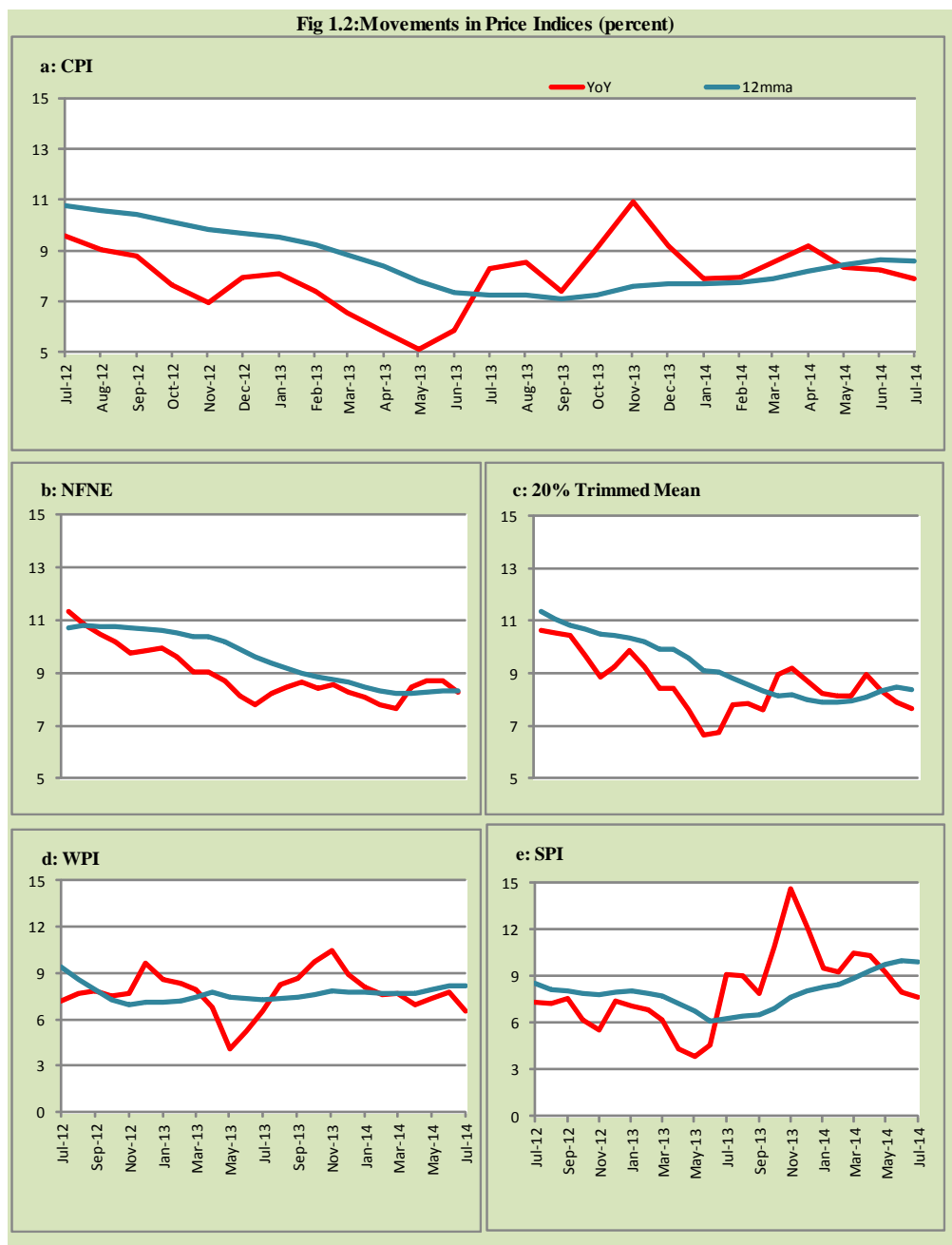
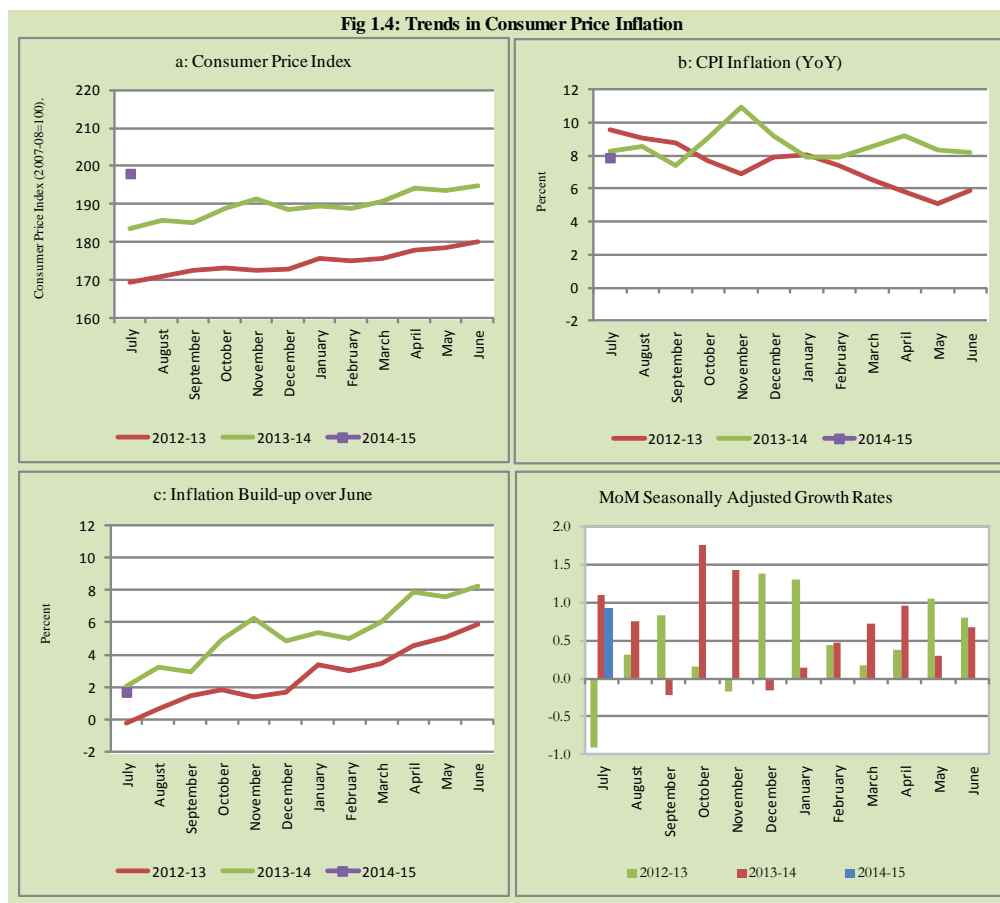




Fig 1.4: Trends in Consumer Price Inflation



2. City wise Inflation

CPI Inflation on year-on-year basis in federal and provincial capitals of Pakistan was higher than overall inflation during July 2014 except Quetta. Among these five cities, the lowest inflation was observed in Quetta at 5.7 percent while the highest inflation was observed in Islamabad at 14.7 percent (Table A6 of annexure-A).

Table 2.1 City-wise Inflation of Selected Cities (percent)						
	Jul-13		Jun-14		Jul-14	
	MoM	YoY	MoM	YoY	MoM	YoY
Overall CPI	2.0	8.3	0.6	8.2	1.7	7.9
Islamabad	1.7	7.6	0.3	14.6	1.7	14.7
Karachi	1.7	8.2	1.0	8.5	2.7	9.5
Lahore	1.4	5.8	1.3	10.1	1.6	10.3
Peshawar	2.5	11.0	-0.2	9.3	1.4	8.2
Quetta	2.7	9.2	0.5	6.3	2.2	5.7

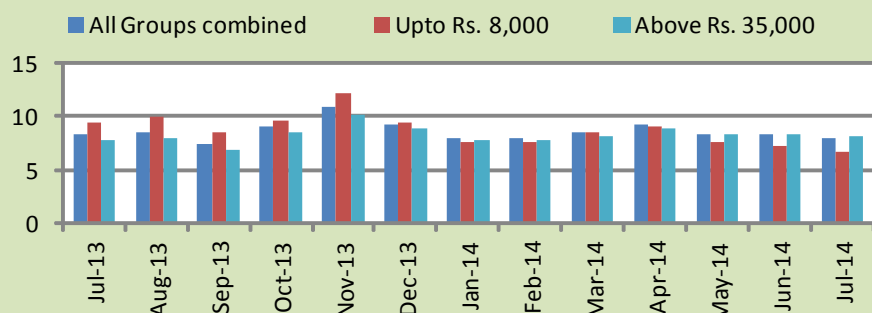
3. Income Group wise Inflation

Income group- wise data showed that income group above Rs. 35,000 witnessed lower inflation than the overall inflation in CPI basket during July 2014 for non-food group. The lowest income group (Up to Rs. 8, 000) has the mixed trend among the income groups during the month of July 2014 (Table A7 of annexure-A).

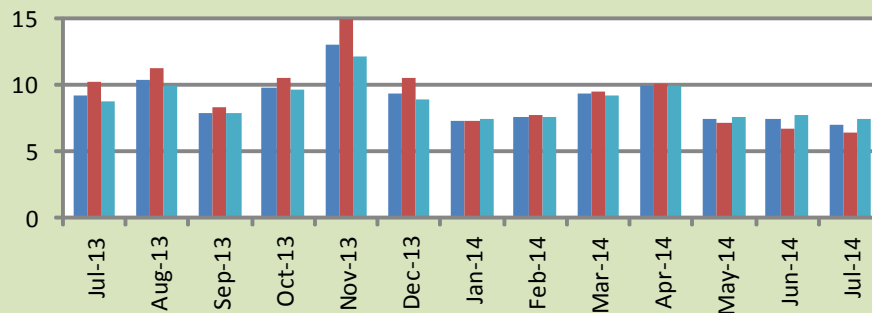
Table 3.1 Income Group- wise Inflation (YoY)									
Income Groups	General			Food			Non-food		
	Jul-13	Jun-14	Jul-14	Jul-13	Jun-14	Jul-14	Jul-13	Jun-14	Jul-14
All Groups Combined	8.3	8.2	7.9	9.2	7.4	7.0	7.6	8.9	8.5
Up to Rs. 8,000	9.4	7.1	6.7	10.2	6.7	6.4	8.4	7.7	7.2
Rs. 8,001- 12,000	8.9	7.2	6.8	9.7	6.9	6.6	8.0	7.5	7.0
Rs. 12,001- 18,000	8.6	8.4	8.0	9.5	7.1	6.8	7.8	9.6	9.1
Rs. 18,001- 35,000	8.5	8.6	8.2	9.2	7.4	7.0	7.8	9.6	9.2
Above Rs. 35,000	7.8	8.3	8.1	8.7	7.7	7.4	7.4	8.7	8.4

Fig 3.1: Income Group- wise Inflation

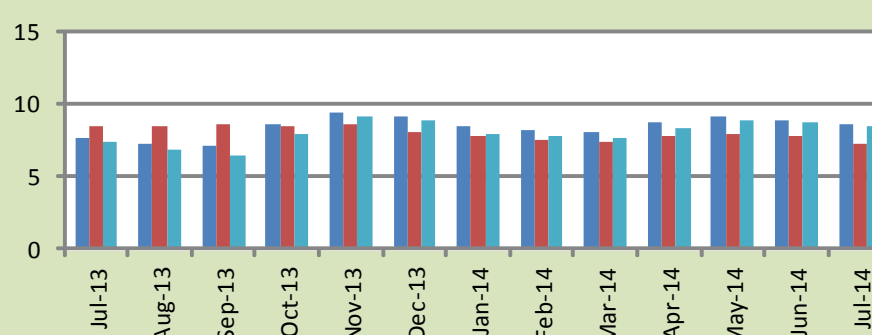
a: CPI Overall Inflation (YoY)



b: CPI Food Inflation (YoY)



c: CPI Non-Food Inflation (YoY)



4. Weighted Contribution

The weighted contribution of food group in the overall inflation slightly increased to 37.86 percent during July 2014 from 37.67 percent in June 2014. It was 46.72 percent in July 2013.

The weighted contribution of non-food group showed decrease to touch 62.14 percent in July 2014 from 62.33 percent in June 2014.

Table 4.1 Weighted Contribution to CPI Inflation (YoY)						
Period	Food	Clothing & Footwear	Housing, Water, Elect, Gas & Other Fuel	Transport	Education	Others
Jul-13	46.72	13.37	20.20	5.27	3.25	11.19
Aug-13	50.74	13.02	19.40	1.98	3.35	11.51
Sep-13	44.97	14.90	22.53	0.16	3.91	13.52
Oct-13	45.18	11.62	26.61	2.68	3.37	10.55
Nov-13	50.12	9.70	22.42	6.24	2.76	8.76
Dec-13	42.35	10.02	26.60	7.26	3.33	10.44
Jan-14	38.35	11.56	30.05	5.41	3.80	10.83
Feb-14	39.62	11.30	30.01	4.66	3.59	10.82
Mar-14	45.11	10.53	27.61	3.41	2.85	10.48
Apr-14	44.99	9.50	26.89	3.49	5.60	9.53
May-14	37.10	10.81	29.55	4.60	7.03	10.91
Jun-14	37.67	10.49	29.57	3.90	7.29	11.08
Jul-14	37.86	9.99	28.62	4.75	7.38	11.40

5. Inflation Diffusion Index

Table 5.1 Inflation Diffusion Index - based on MoM change

	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14
General	58.0	53.5	51.4	53.9	49.7	50.0	43.6	43.6	45.9	41.2	46.5	38.9	42.8
Food & Non-Alcoholic Beverages	53.5	39.8	36.3	57.4	49.6	41.1	29.2	38.4	59.5	23.9	33.6	25.7	43.0
Alcoholic Beverages & Tobacco	100.0	16.7	66.7	50.0	-33.3	66.7	50.0	0.0	0.0	33.3	83.3	66.7	66.7
Clothing & Footwear	76.3	76.3	83.1	78.0	83.1	76.3	78.0	71.2	52.5	67.8	67.8	57.6	64.4
Housing, Water, Elect, Gas & other Fuels	66.7	41.7	33.3	61.1	44.4	25.0	55.6	25.0	27.8	38.9	27.8	33.3	36.1
Furnishing & Household Equip. Maintenance etc	78.3	85.5	78.3	82.6	85.5	89.9	76.8	81.2	75.4	82.6	89.9	69.6	69.6
Health	17.9	28.2	10.3	17.9	15.4	20.5	5.1	10.3	28.2	25.6	25.6	17.9	23.1
Transport	53.5	39.5	53.5	48.8	30.2	34.9	32.6	37.2	25.6	16.3	9.3	18.6	23.3
Communication	58.3	33.3	16.7	16.7	25.0	16.7	0.0	16.7	16.7	-8.3	16.7	8.3	16.7
Recreation & Culture	33.3	41.0	33.3	23.1	20.5	33.3	20.5	15.4	7.7	30.8	23.1	20.5	0.0
Education	50.0	68.8	56.3	25.0	0.0	37.5	25.0	0.0	12.5	31.3	62.5	68.8	37.5
Restaurant & Hotels	100.0	100.0	100.0	83.3	83.3	100.0	100.0	100.0	100.0	66.7	100.0	50.0	50.0
Miscellaneous	60.0	65.7	74.3	40.0	62.9	57.1	48.6	62.9	62.9	48.6	65.7	54.3	60.0
NFNE	58.6	58.6	55.9	51.8	52.4	53.3	48.5	46.7	42.6	48.5	51.2	43.5	43.5

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

6. Domestic Commodity Prices

Table 6.1 Inflation in Domestic CPI Food Commodities

Sr. No	Item	Unit	Jul-13		Jun-14		Jul-14	
			YoY	MoM	YoY	MoM	YoY	MoM
1	Wheat	10 Kg	22.47	3.49	6.44	-1.04	4.26	1.38
2	Wheat Flour Bag	10 Kg	22.27	1.90	6.21	-0.94	4.56	0.31
3	Rice Basmati Sup. Qlty.	Kg	18.48	1.13	6.90	-0.15	6.16	0.43
4	Pulse Masoor (Washed)	Kg	9.82	2.46	18.26	-0.01	14.80	-0.54
5	Pulse Moong (Washed)	Kg	2.71	5.84	34.39	1.98	27.17	0.16
6	Pulse Mash (Washed)	Kg	-3.88	-0.43	11.47	3.61	11.70	-0.22
7	Pulse Gram	Kg	-25.56	-5.27	-10.79	0.16	-6.93	-1.16
8	Vegetable Ghee (Loose)	Kg	-5.69	-0.08	1.63	-0.34	1.20	-0.51
9	Sugar Refined	Kg	-0.63	0.73	0.42	3.44	2.73	3.05
10	Milk Fresh (Unboiled)	Ltr	7.74	0.46	7.49	1.40	7.45	0.43
11	Tea- Tapal Danedar	200 Gm	36.24	2.63	-20.99	-2.28	-23.38	-0.48
12	Beef With Bone Av. Qlty.	Kg	4.21	0.81	6.16	0.25	5.90	0.56
13	Mutton Av. Qlty.	Kg	6.13	0.73	6.89	0.45	6.14	0.02
14	Chicken Farm Broiler (Live)	Kg	-0.76	-3.71	-5.43	-3.13	-1.86	-0.08
15	Eggs Farm	Doz	8.35	8.95	9.36	1.63	6.13	5.73
16	Potatoes	Kg	11.46	24.87	138.68	3.26	122.54	16.43
17	Onion	Kg	61.82	4.09	-18.62	-2.68	-7.61	18.17
18	Tomatoes	Kg	247.07	79.83	-35.06	60.22	-48.10	43.71
19	Ginger	Kg	36.17	6.59	122.00	16.69	100.14	-3.90
20	Garlic	Kg	21.58	-2.77	-9.56	-5.19	-5.59	1.50

7. Global Commodity Prices

Table 7.1 Changes in Major Global Indices (percent)

Item/ Group	Jul-13		Jun-14		Jul-14	
	YoY	MoM	YoY	MoM	YoY	MoM
Overall	3.1	2.4	3.3	0.5	-1.3	-2.2
Food	-0.6	-1.0	-5.2	-3.7	-6.3	-2.1
Metals	-5.7	1.8	-4.6	-1.6	-2.2	4.3
Energy	6.1	4.0	6.6	1.9	-0.8	-3.3
Agricultural Raw Material	3.4	-3.2	0.1	-0.6	2.4	-0.9
Cotton	10.3	-0.5	-2.3	-2.0	-9.5	-7.8

Source: IMF

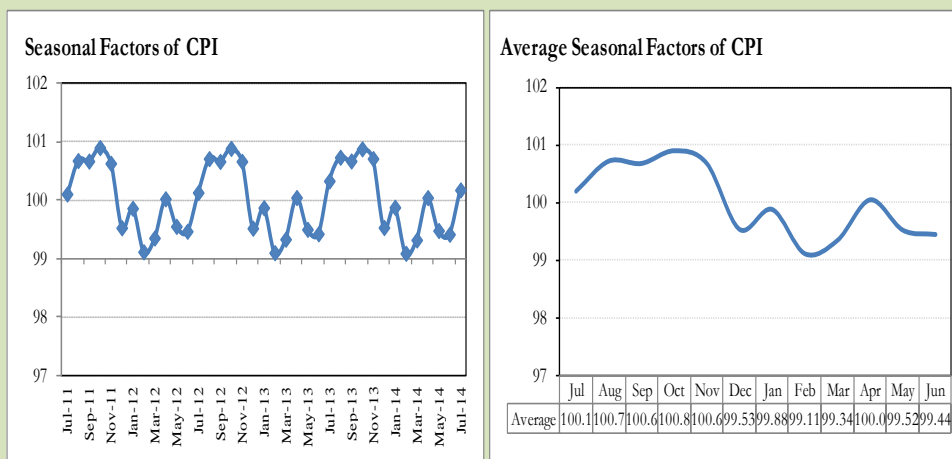
8. Seasonal Adjustment in CPI

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

The changes in consumer prices are normally reported in terms of year-on-year and month-on-month basis. Seasonal adjustment is particularly useful for analyzing month-on-month changes. The monthly data series of Consumer Price Index (CPI) from July 2008 to July 2014 has been used for seasonal adjustment analysis. The seasonal analysis is carried out without taking trading-day or Islamic calendar month's effects.

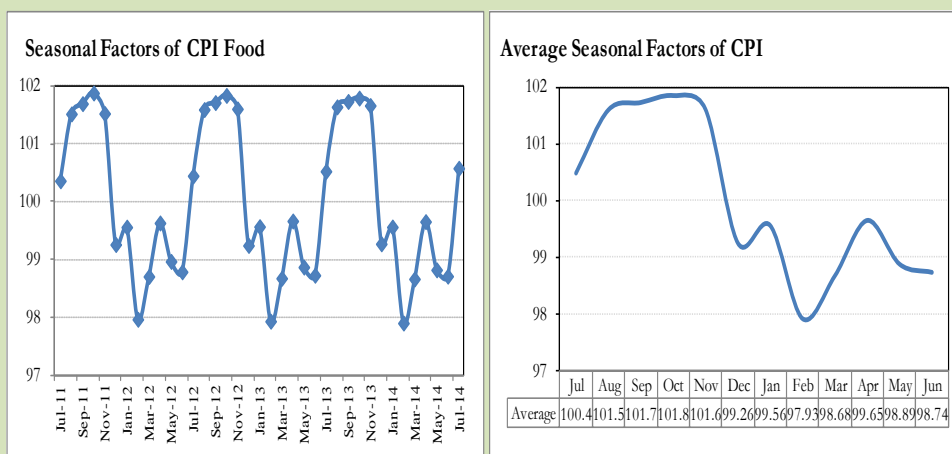
Figure 8.1 reveals that seasonality in CPI has been increasing over the period of last four years. Average seasonal factors reveal strong seasonality during the calendar year. There is an upward seasonality during the months from July to November & April and downward seasonality in the remaining months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

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

Fig. 8.3 Seasonal Plots of CPI

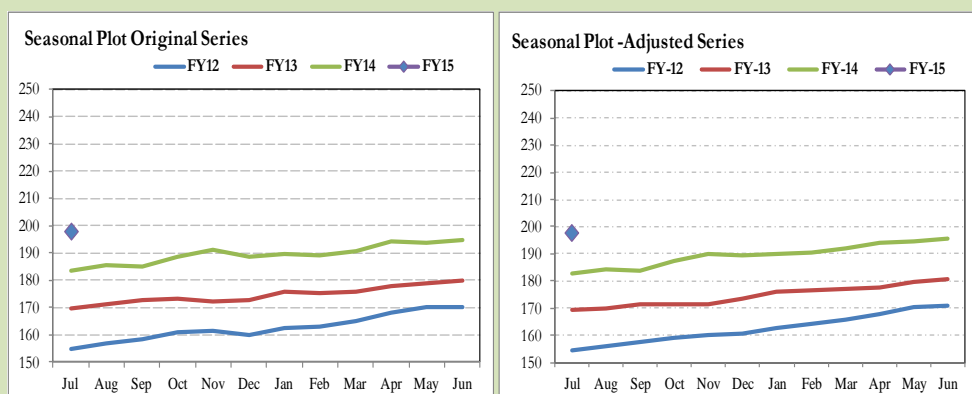
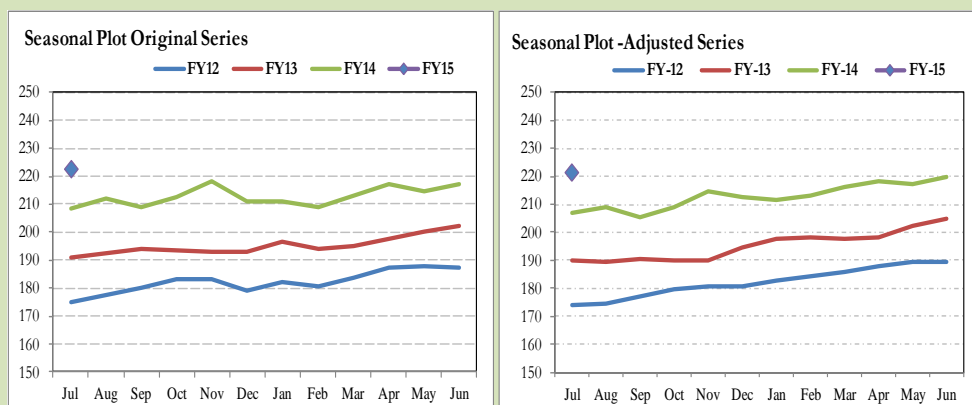


Fig. 8.4 Seasonal Plots of CPI (Food)



Seasonally adjusted CPI for July 2014 stood at 197.69 against 198.05 in original series showing a decrease of 0.36 on account of adjustment of upward seasonality in July 2014.

Seasonally adjusted CPI food group for July 2014 stood at 221.52 against 222.80 in original series showing a decrease of 1.28 on account of adjustment of upward seasonality in July 2014.

Month-on-month change of seasonally adjusted CPI series stood at 0.93% reflecting increase during July 2014 over June 2014 and an increase of 1.70% in original series.

Month-on-month change of seasonally adjusted CPI food group series stood at 0.78% reflecting decrease during July 2014 over June 2014 and an increase of 2.68% in original series.

It is important to note that inflation rates should be analyzed on the basis of seasonally adjusted rates. This is especially needed for inflation rates on month-on-month basis. The most recent annual rate of inflation is usually indicated by annualizing the seasonally adjusted month-on-month rate. Annualized rate of CPI inflation in July 2014 (corresponding to the seasonally adjusted month-on-month rate) is 11.75 percent.

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

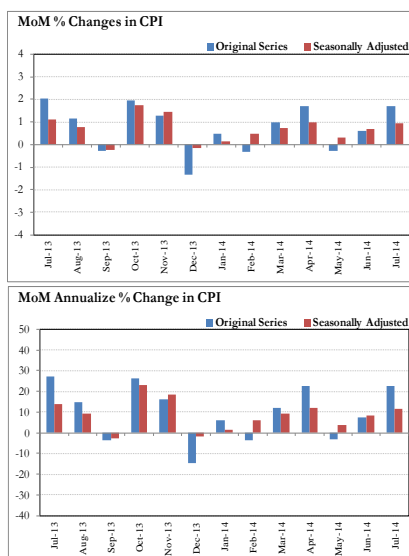
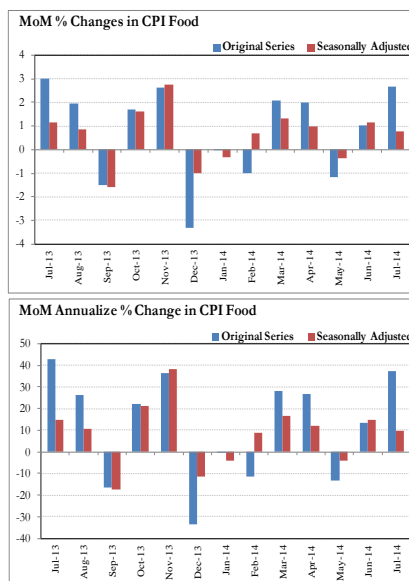


Fig. 8.6 Month-on-Month Percent Changes in CPI Food



Annexure A

Table A1: CPI Inflation by Groups (percent)							
	Weight	MoM change			YoY change		
		Jul-13	Jun-14	Jul-14	Jul-13	Jun-14	Jul-14
I. Food Group	37.5	3.0	1.0	2.7	9.2	7.4	7.0
Food & Non-Alcoholic Beverages	34.8	2.7	0.4	2.8	8.9	6.1	6.2
Alcoholic Beverages & Tobacco	1.4	11.7	15.9	2.5	14.8	33.2	22.2
Restaurant & Hotels	1.2	1.5	0.3	0.2	9.0	13.3	11.9
II. Non-Food Group	62.5	1.3	0.3	1.0	7.6	8.9	8.5
Clothing & Footwear	7.6	2.1	1.0	1.2	14.9	11.0	10.0
Housing, Water, Elect, Gas & other Fuels	29.4	1.9	0.0	1.2	6.5	9.6	8.9
Furnishing & Household Equip. Maintenance etc	4.2	0.8	1.0	0.2	7.6	9.8	9.2
Health	2.2	0.3	0.2	0.4	7.7	7.3	7.4
Transport	7.2	0.8	0.1	1.6	5.7	4.3	5.1
Communication	3.2	0.7	0.1	0.0	4.9	0.9	0.2
Recreation & Culture	2.0	0.4	0.1	0.0	8.4	6.1	5.8
Education	3.9	0.4	1.1	0.2	7.6	16.7	16.5
Miscellaneous	2.8	-0.7	-0.1	0.9	5.4	6.3	8.0
Headline	100.0	2.0	0.6	1.7	8.3	8.2	7.9

Table A2: Distribution of Price changes (YoY) of CPI basket											
Groups	% changes	Total number of items		No. of items in each inflation range							
				Decrease or no change (0% or less)		Subdued increase (>0% but <5%)		Moderate increase (5% but less than 10%)		Double digit increase (10% or more)	
		Jul-13	Jul-14	Jul-13	Jul-14	Jul-13	Jul-14	Jul-13	Jul-14	Jul-13	Jul-14
I. Food Group	7.0	127	127	28	23	19	26	36	28	44	50
Food & Non-Alcoholic Beverages	6.2	115	115	28	23	19	26	30	25	38	41
Alcoholic Beverages & Tobacco	22.2	6	6	0	0	0	0	2	2	4	4
Restaurant & Hotels	11.9	6	6	0	0	0	0	4	1	2	5
II. Non-Food Group	8.5	348	348	52	75	70	64	128	105	98	104
Clothing & Footwear	10.0	59	59	3	8	2	2	13	19	41	30
Housing, Water, Elect, Gas & other Fuels	8.9	36	36	6	8	4	1	21	20	5	7
Furnishing & Household Equip. Maintenance etc	9.2	69	69	3	1	16	15	38	23	12	30
Health	7.4	39	39	17	20	4	7	10	4	8	8
Transport	5.1	43	43	8	16	14	14	18	8	3	5
Communication	0.2	12	12	2	7	3	3	4	2	3	0
Recreation & Culture	5.8	39	39	8	12	16	7	5	15	10	5
Education	16.5	16	16	1	0	5	4	6	3	4	9
Miscellaneous	8.0	35	35	4	3	6	11	13	11	12	10
Overall	7.9	475	475	80	98	89	90	164	133	142	154

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

Table A3: Top and Bottom 15 Contributors to CPI Inflation (YoY) in July 2014					
Top 15 Contributors		YoY Change		Weighted Contribution	
Items/ Contributors	Weights	Jul-13	Jul-14		
Ranked by Weighted Contribution					
1	House Rent	21.81	8.19	7.81	17.46
2	Electricity	4.40	0.00	15.82	9.44
3	Potatoes	0.47	11.46	122.55	8.40
4	Milk Fresh	6.68	7.58	7.59	7.95
5	Education	3.94	7.56	16.49	7.38
6	Fresh Fruits	1.86	-4.14	16.89	5.09
7	Cigarette	1.39	14.96	22.46	4.70
8	Cotton Cloth	1.73	14.32	15.95	3.39
9	Wheat Flour	4.16	23.43	4.84	2.85
10	Meat	2.43	4.85	5.98	2.26
11	Ready Made Food	1.23	8.98	11.86	2.15
12	Motor Fuel	3.03	10.64	4.76	1.81
13	Beverages	1.20	10.97	11.57	1.79
14	Transport Services	2.70	1.22	4.58	1.74
15	Ready Made Garment	0.97	12.19	13.58	1.69
Total		58.02			78.11
Bottom 15 Contributors					
1	Tomatoes	0.44	247.08	-48.10	-4.73
2	Tea	0.84	25.34	-18.05	-2.64
3	Onion	0.53	61.82	-7.61	-0.70
4	Footwear	1.55	18.78	-3.08	-0.56
5	Chicken	1.36	-0.76	-1.86	-0.36
6	Pulse Gram	0.24	-25.56	-6.93	-0.20
7	Besan	0.15	-22.67	-5.25	-0.10
8	Gram Whole	0.16	-18.50	-4.28	-0.09
9	Gur	0.02	18.19	-1.69	-0.01
10	Mustard Oil	0.10	-0.89	-0.15	0.00
11	Gas	1.58	7.05	0.00	0.00
12	Postal Services	0.07	25.98	0.03	0.00
13	Kerosene Oil	0.01	12.89	1.23	0.00
14	Medical Equipment	0.01	8.42	7.24	0.01
15	Blades	0.03	5.26	4.01	0.02
Total		7.08			-9.36

Table A3.1: Top and Bottom 15 Contributors to CPI Inflation (MoM) in July 2014

Table A01: Top and Bottom 15 Contributors to CPI Inflation (MoM), in July 2014					
Top 15 Contributors		Weights	MoM Change		Weighted Contribution
Items/ Contributors			Jun-14	Jul-14	
Ranked by Weighted Contribution					
1	Fresh Fruits	1.86	0.18	15.22	20.36
2	House Rent	21.81	0.00	1.76	18.26
3	Fresh Vegetable	1.68	-4.83	10.96	11.27
4	Potatoes	0.47	3.26	16.43	9.41
5	Tomatoes	0.44	60.22	43.71	6.79
6	Onion	0.53	-2.67	18.17	5.72
7	Motor Fuel	3.03	-0.12	2.00	3.41
8	Cigarette	1.39	16.18	2.54	2.78
9	Cotton Cloth	1.73	2.22	2.10	2.22
10	Milk Fresh	6.68	1.43	0.42	2.06
11	Sugar	1.04	3.44	3.05	1.88
12	Motor Vehicle Tax	0.11	0.00	36.71	1.87
13	Tailoring	0.88	0.92	2.58	1.71
14	Transport Services	2.70	0.19	0.79	1.36
15	Egg	0.46	1.64	5.73	1.32
Total		44.83			90.43
Bottom 15 Contributors					
1	Vegetable Ghee	2.07	-0.35	-0.32	-0.32
2	Tea	0.84	-1.71	-0.31	-0.16
3	Pulse Gram	0.24	0.16	-1.17	-0.14
4	Besan	0.15	0.00	-1.56	-0.12
5	Chicken	1.36	-3.13	-0.08	-0.06
6	Fish	0.30	0.49	-0.25	-0.05
7	Cooking Oil	1.75	-0.44	-0.06	-0.05
8	Fire Wood Whole	0.23	-0.42	-0.25	-0.05
9	Pulse Masoor	0.27	-0.06	-0.27	-0.04
10	Gram Whole	0.16	0.29	-0.35	-0.03
11	Pulse Mash (Washed)	0.21	3.61	-0.22	-0.03
12	Communication & Apparatus	3.15	0.05	-0.02	-0.02
13	Recreation & Culture	0.86	0.35	-0.01	0.00
14	Beans	0.03	-1.46	-0.11	0.00
15	Kerosene Oil	0.01	0.40	-0.14	0.00
Total		11.63			-1.08

Table A3.2: Top Fifteen Contributors to CPI Inflation (YoY) in July 2014					
Items/ Contributors		Weights	YoY Change		Weighted Contribution
			Jul-13	Jul-14	
A. Ranked by Percentage Change					
1	Potatoes	0.47	11.46	122.55	8.40
2	Motor Vehicle Tax	0.11	1.13	36.71	0.43
3	Pulse Moong	0.23	2.71	27.17	1.04
4	Cigarette	1.39	14.96	22.46	4.70
5	Fresh Fruits	1.86	-4.14	16.89	5.09
6	Education	3.94	7.56	16.49	7.38
7	Milk Powder	0.11	6.68	16.47	0.25
8	Cotton Cloth	1.73	14.32	15.95	3.39
9	Electricity	4.40	0.00	15.82	9.44
10	Pulse Masoor	0.27	9.72	14.47	0.43
11	Doctor (MBBS) Clinic Fee	0.59	10.54	14.41	1.20
12	Condiments	0.27	3.42	13.83	0.55
13	Ready Made Garment	0.97	12.19	13.58	1.69
14	Woolen Readymade Garments	0.40	18.92	13.45	0.71
15	Hosiery	0.51	12.85	12.82	0.88
Total		17.26			45.59
B. Ranked by Weights					
1	House Rent	21.81	8.19	7.81	17.46
2	Milk Fresh	6.68	7.58	7.59	7.95
3	Electricity	4.40	0.00	15.82	9.44
4	Wheat Flour	4.16	23.43	4.84	2.85
5	Education	3.94	7.56	16.49	7.38
6	Communication & Apparatus	3.15	4.29	0.19	0.05
7	Motor Fuel	3.03	10.64	4.76	1.81
8	Transport Services	2.70	1.22	4.58	1.74
9	Meat	2.43	4.85	5.98	2.26
10	Vegetable Ghee	2.07	-5.17	1.29	0.29
11	Fresh Fruits	1.86	-4.14	16.89	5.09
12	Cooking Oil	1.75	-1.42	0.15	0.03
13	Cotton Cloth	1.73	14.32	15.95	3.39
14	Fresh Vegetable	1.68	19.56	6.40	1.57
15	Rice	1.58	13.19	3.00	0.62
Total		63.00			61.93
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 7.9 percent in July, 2014.					

Table A3.3: Top Ten Contributors to CPI Food Inflation (YoY) in July 2014

Table 1: Top 10 Contributors to GDP Contribution (2017 to July 2017)					
Items/ Contributors		Weights	YoY Change		Weighted Contribution
			Jul-13	Jul-14	
A. Ranked by Weighted Contribution					
1	Potatoes	0.47	11.46	122.55	8.40
2	Milk Fresh	6.68	7.58	7.59	7.95
3	Fresh Fruits	1.86	-4.14	16.89	5.09
4	Cigarette	1.39	14.96	22.46	4.70
5	Wheat Flour	4.16	23.43	4.84	2.85
6	Meat	2.43	4.85	5.98	2.26
7	Ready Made Food	1.23	8.98	11.86	2.15
8	Beverages	1.20	10.97	11.57	1.79
9	Bakery & Confectionary	1.16	7.98	11.28	1.65
10	Fresh Vegetable	1.68	19.56	6.40	1.57
Total		22.26			38.43
B. Ranked by Percentage Change					
1	Potatoes	0.47	11.46	122.55	8.40
2	Pulse Moong	0.23	2.71	27.17	1.04
3	Cigarette	1.39	14.96	22.46	4.70
4	Fresh Fruits	1.86	-4.14	16.89	5.09
5	Milk Powder	0.11	6.68	16.47	0.25
6	Pulse Masoor	0.27	9.72	14.47	0.43
7	Condiments	0.27	3.42	13.83	0.55
8	Wheat Product	0.10	17.95	12.81	0.16
9	Honey	0.04	8.23	12.47	0.10
10	Ready Made Food	1.23	8.98	11.86	2.15
Total		5.98			22.88
C. Ranked by Weights					
1	Milk Fresh	6.68	7.58	7.59	7.95
2	Wheat Flour	4.16	23.43	4.84	2.85
3	Meat	2.43	4.85	5.98	2.26
4	Vegetable Ghee	2.07	-5.17	1.29	0.29
5	Fresh Fruits	1.86	-4.14	16.89	5.09
6	Cooking Oil	1.75	-1.42	0.15	0.03
7	Fresh Vegetable	1.68	19.56	6.40	1.57
8	Rice	1.58	13.19	3.00	0.62
9	Cigarette	1.39	14.96	22.46	4.70
10	Chicken	1.36	-0.76	-1.86	-0.36
Total		24.98			25.01

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 7.0 percent in July, 2014.

Table A3.4: Top Ten Contributors to CPI Non-food Inflation (YoY) in July 2014					
Items/ Contributors		Weights	YoY Change		Weighted Contribution
			Jul-13	Jul-14	
A. Ranked by Weighted Contribution					
1	House Rent	21.81	8.19	7.81	17.46
2	Electricity	4.40	0.00	15.82	9.44
3	Education	3.94	7.56	16.49	7.38
4	Cotton Cloth	1.73	14.32	15.95	3.39
5	Motor Fuel	3.03	10.64	4.76	1.81
6	Transport Services	2.70	1.22	4.58	1.74
7	Ready Made Garment	0.97	12.19	13.58	1.69
8	Tailoring	0.88	16.03	11.92	1.65
9	Household Servant	1.04	8.92	11.34	1.61
10	Personal Care	1.49	6.44	7.89	1.51
Total		42.01			47.69
B. Ranked by Percentage Change					
1	Motor Vehicle Tax	0.11	1.13	36.71	0.43
2	Education	3.94	7.56	16.49	7.38
3	Cotton Cloth	1.73	14.32	15.95	3.39
4	Electricity	4.40	0.00	15.82	9.44
5	Doctor (MBBS) Clinic Fee	0.59	10.54	14.41	1.20
6	Ready Made Garment	0.97	12.19	13.58	1.69
7	Woolen Readymade Garments	0.40	18.92	13.45	0.71
8	Hosiery	0.51	12.85	12.82	0.88
9	Tailoring	0.88	16.03	11.92	1.65
10	Marriage Hall Charges	0.08	5.94	11.47	0.12
Total		13.61			26.90
C. Ranked by Weights					
1	House Rent	21.81	8.19	7.81	17.46
2	Electricity	4.40	0.00	15.82	9.44
3	Education	3.94	7.56	16.49	7.38
4	Communication & Apparatus	3.15	4.29	0.19	0.05
5	Motor Fuel	3.03	10.64	4.76	1.81
6	Transport Services	2.70	1.22	4.58	1.74
7	Cotton Cloth	1.73	14.32	15.95	3.39
8	Gas	1.58	7.05	0.00	0.00
9	Footwear	1.55	18.78	-3.08	-0.56
10	Personal Care	1.49	6.44	7.89	1.51
Total		45.39			42.22
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 8.5 percent in July, 2014.					

Table A4: Distribution of Price Changes (YoY) - Selected CPI Items: July 2014

Groups	Decrease or no change	Subdued increase (Greater than 0% but less than 5%)	Moderate increase (5% but less than 10%)	Double digit increase (10% or more)
Food & Non-Alcoholic Beverages	Tomatoes, Tea Lipton Yellow Label 200 Gm, Tapal Danedar Tea 200 Gm, Bottlegourd, Groundnuts (With Shell)	Custard Powder Rafhan 300, Wheat Flour Bag, Wheat Flour Avg. Qty, Rice Basmati 385/386, Dates Av.Qlty., Wheat, Jam Ahmed/Mitchelles	Biscuit-Bakery (Loose), Curd, Cinamon Loose Av. Qty, Coffee-Nescafe 75 Gm, Pumpkin, Apple, Nimco, Rusk (Papay), Lemon	Potatoes, Ginger, Coconut Dry Av.Qlty., Coriander Seed (Loose), Bananas, Aloo Bukhara, Pulse Moong (Washed), Pepper Black National, Pistachio Av.Qlty., Muskmelon (Kharbooza), Salt Powdered (National/Shan)
Alcoholic Beverages & Tobacco			Betel Leaves, Betel Nuts	Cigarettes Morven Gold 20,S, Cigarettes Capstan 20,S, Cigarettes K-20,S, Cigarettes Gold Leaf 20,S
Clothing & Footwear	Gents Shoe, Art 1109 Servis, Child Shoe Power Lite Bata, Gents Shoes Paul Bata, Sports Shoes, Gents Spoung Chappal Bata	Pullover Ladies Oxford/Bon, Tailoring Coat-Pant Suit	Gloves Av.Qlty, Georgette Av.Qlty, Azarband Cotton Avg. Qty, Dopatta Cotton Av. Qty, Foot Wear Local (Female), School Uni. Kameez, Shal.Boys	Lawn Printed Gul Ahmed/AI Karam, Secondhand Winter Jacket, Frock W/Wear Girls, Shirt Boy 24"/26" Length, Brassier Av.Qlty, Handkerchief Avg. Qty Pak, Shirting Av.Qlty. Brassier Sup. Qty, Pullover (Gents) Others Av.Qlty, Awami-Suit W & W (Boys) 24"/26"
Housing, Water, Elect, Gas & other Fuels	Elect. Charges Upto 50 Units, Elect. Charges 01 - 100 Units, Gas Chrg Over 100 - 200 Mmbtu, Gas Chrg All Over 500 Mmbtu	Kerosene Oil	Synthetic Enemal ICI, Mason (Raj) Wage Rate, Sand (Black Pit Sand), Carpenter Wage Rate, Firewood Whole, Electrician Wage Rate(P/Pnt)	Elect. Charges 301 - 1000 Units, Elect. Charges 101 - 300 Units, Elect. Charges Overall/ Combined, Elect. Charges Above 1000 Units, Timber Shesham Log, Cement Blocks (6"X8"X12"), Synthetic Enemal Robialac
Furnishing & Household Equip. Maintenance etc	Sewing Machine Needle (Singer)	S.Steel Plate Avg. Qty, Washing Soap 250 Gm, Gizer Large Size 30 Gallon, Carpet Plain Av. Qty, Ceiling Fan 56" Super Qty	Harpic, Pressure Cooker 4 Ltr., Gas Burner Double, Matress Single(4"Thick), Dari Cotton (6X2 1/2'), Water Cooler 9/10 Ltr.	Boot Polish Cherry/Kiwi 50 ML, Robin Blue (35 Gms), Finis 500 ML, Match Box (Small), Cleanser Powder Vim 1000 Gms, Chair Shesham Wood, Chair Plastic (Chairman) Av. Qty, Tea Set Pak. China Wear 21 Pcs
Health	Hydriyllin Syrup 120 ML, Polyfax Eye Ointment, Flagyl Tab. 200 Mg., Betnovate-N Ointment 5 Gm	Sugar Test (Random/Fasting), ECG Charges, Galxos-D (450 Gm), Blood Test (Cp) Charges, Thermometer China, Dettol (Medium)	Urine Test (Dr) Charges, Cotton Bandage 2" - 4", Glycerin Small Bottle, X-Ray (Chest) Charges	Amoxil Capsule 250 Mg., Jouhar Joshanda, Renitec Tab. 5 Mg., Doctor (MBBS) Clinic Fee, Daonil Tab. 5 Mg., Betnesol Eye Drops, Calpol Syrup 60 ML, Saniplast (1 Putty)
Transport	Train Fare A/C Slp.101-500, Train Fare A/C Slp > 500K, Train Fare A/C Slp. 1-100, Train Fare Eco. 1-100 Km.	Cng, Tyre Car W/O Tube, Bicycle With Tyres & Tube, Auto Rickshaw Fare, Tyre Cycle, Car Suzuki 800 Cc (W/O. Ac)	Minibus Fare Max.Within City, Car Service Charges, Tyre Car With Tube General, Suzuki Fare Min.Within City, Tyre Puncture Charges	Car Tax For 800 Cc To 1300 Cc, Minibus Fare Min.Within City, Cycle Overhauling Charges, Suzuki Fare Maximum Within City, Air Fare Economy Class.
Communication	Postal Envelope Domestic, Mobile Cell Charges, Telephone Charges Local Call	Fax Charges (Local), Mobile Set Nokia/Sony/Ericsson Av.Qlty, Postal Envelope For Saudi Arabia	Telephone Set Av. Qty, Internet Charges	
Recreation & Culture	English Book BA/B.Sc, Maths Book Ist. Year (T.B. Board), Maths Book Calss V (T.B.Board), T.V. 20" Colored Sony, Video Game Sega 16 Byte	Tape Recorder Cassette (Blank), Cable Charges, T.V 20" Color China/Korea, Computer CD (Tdk/Imation), DVD/VCD Player Panasonic/LG	Fountain Pen Hero/Wings/China, Paper Fool Scape (27"X17"), Ball Pen (Local), Pen Ink Dollor 57 ML Bottle, Pencil Goldfish/Deer, Cinema Non-A/C High Class	Weekly "Akhbar-e-Jahan", Maths Book Class IX or X, English Book Class V1, Urdu Book Class IX/X (T.B.Board), Pakistan Studies Book BA/B.Sc
Education		Coaching Fee For Class IX/ X, Coaching Charges For Class XI/ XII Commerce Group, MBA Tuition Fee, I.T. Tuition Fees	Govt. University Fee MSC/ MA, Pvt School Fee Eng. Med (Class-X), Govt. College Fee Ist. Year, Pvt School Fee Eng. Med (Class-I), Pvt School Fee Eng. Med (Class-V)	
Restaurant & Hotels			Chicken Biryani Full/Double	Cooked Mutton (Av. Hotel), Bread Tandoori St. Size, Tea Prepared (Ordinary), Cooked Dal (Av. Hotel), Cooked Beef (Av. Hotel)
Miscellaneous	Toothpaste Med Size Colgate 70Gms, Silver Tezabi 24 Ct, Gold Tezabi 24 Ct	Shaving Cream Touch-Me/Admiral, Toothbrush Shield, Blade Treet Ordinary (10), Hair Color Bigen	Beauty Parlor Hair Style Charges, Wrist Watch Ladies Citizen, Wrist Watch Gents Citizen	Toilet Soap Lux 95 Gms, Purse Ladies (Leather) Av. Qty, Artificial Jewellery Set, Perfume Med. Size Medora/Broche, Haircut Charges For Men, Suitcase Rexin (24"X16"X6")

Table A5: City- wise CPI Inflation by Income Groups, July 2014

	Up to Rs: 8000						Rs 8001- 12000					
	General		Food		Non-Food		General		Food		Non-Food	
	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY
1 Rawalpindi	2.4	9.2	3.3	8.7	1.2	9.9	2.4	10.1	3.6	9.5	1.1	10.7
2 Islamabad	1.6	12.2	2.0	6.3	1.0	20.2	1.7	12.1	2.1	6.7	1.3	18.6
3 Lahore	1.9	9.4	3.2	10.5	-0.1	8.0	1.8	9.9	3.2	11.0	0.1	8.4
4 Gujranwala	1.4	6.0	2.4	5.3	0.2	7.0	1.4	6.1	2.3	5.8	0.3	6.6
5 Sialkot	2.4	6.4	2.9	6.6	1.9	6.1	2.4	6.6	2.9	7.1	1.9	5.9
6 Faisalabad	3.8	10.6	5.6	7.9	1.6	14.4	3.6	10.7	5.5	8.2	1.6	13.7
7 Multan	2.6	5.8	4.0	4.8	0.9	7.0	2.4	5.9	3.7	4.8	1.0	7.2
8 Sargodha	0.9	7.2	1.1	7.4	0.8	6.9	1.0	7.1	1.2	7.6	0.8	6.7
9 Bahawalpur	1.2	7.2	1.2	7.0	1.3	7.4	1.2	6.8	1.3	6.6	1.2	7.0
10 Karachi	3.1	8.4	3.7	8.1	2.3	8.9	3.1	8.8	3.8	8.9	2.2	8.7
11 Hyderabad	1.0	4.7	1.3	4.8	0.5	4.6	1.0	4.9	1.3	4.9	0.6	4.9
12 Sukkur	2.2	7.9	2.8	9.7	1.4	5.7	2.1	7.8	2.8	9.8	1.3	5.6
13 Larkana	1.8	7.1	2.8	6.6	0.6	7.8	1.7	7.8	2.8	7.2	0.6	8.4
14 Peshawar	1.7	6.7	2.7	5.4	0.5	8.2	1.6	7.2	2.7	6.2	0.5	8.1
15 Bannu	3.6	5.5	5.6	5.1	1.2	5.9	3.4	5.9	5.7	5.9	1.0	6.0
16 Quetta	3.0	5.2	5.4	5.6	-0.1	4.7	2.4	5.3	4.8	5.9	-0.3	4.7
17 Khuzdar	-0.1	7.8	-0.4	11.2	0.4	3.7	0.0	7.6	-0.4	11.3	0.4	3.7
	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	2.5	10.1	3.7	9.4	1.3	10.7	2.5	10.2	4.0	9.7	1.3	10.6
2 Islamabad	1.8	13.3	2.3	7.3	1.4	19.7	1.8	15.3	2.5	7.8	1.3	22.3
3 Lahore	1.9	10.2	3.2	11.4	0.4	8.7	1.7	10.4	3.1	11.7	0.3	9.1
4 Gujranwala	1.3	5.5	2.0	5.3	0.5	5.8	1.1	5.6	1.9	5.0	0.3	6.2
5 Sialkot	2.4	7.1	2.7	8.1	2.0	6.0	2.3	7.6	2.7	8.7	1.8	6.6
6 Faisalabad	3.7	11.3	5.3	8.5	2.1	14.4	3.3	11.7	5.1	8.9	1.7	14.3
7 Multan	2.4	6.0	3.7	4.9	1.2	7.0	2.3	6.6	3.7	5.0	1.1	8.0
8 Sargodha	1.1	7.1	1.3	8.0	1.0	6.4	1.1	7.2	1.3	8.4	0.9	6.4
9 Bahawalpur	1.4	6.8	1.5	6.4	1.3	7.1	1.2	6.2	1.5	6.5	1.0	6.0
10 Karachi	3.1	9.2	3.9	9.5	2.3	8.8	2.8	9.5	3.8	10.2	1.9	8.8
11 Hyderabad	1.1	4.8	1.4	5.3	0.7	4.3	1.0	5.5	1.4	5.8	0.6	5.1
12 Sukkur	2.0	7.4	2.8	10.0	1.1	4.9	2.0	7.3	3.1	9.7	1.0	5.3
13 Larkana	1.4	7.9	2.2	7.1	0.7	8.7	1.3	8.5	2.0	7.2	0.7	9.6
14 Peshawar	1.6	7.3	2.9	6.5	0.5	8.0	1.6	8.1	3.0	6.9	0.5	9.0
15 Bannu	3.6	6.0	6.0	6.0	1.4	6.1	3.5	6.8	6.2	6.7	1.2	7.0
16 Quetta	2.2	5.5	4.7	6.0	-0.2	4.9	2.1	5.8	4.9	6.0	-0.2	5.7
17 Khuzdar	-0.1	7.3	-0.5	11.2	0.4	3.6	-0.2	7.8	-0.7	11.6	0.3	4.8
	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	2.1	10.1	4.0	10.2	1.3	10.0	2.3	10.0	4.0	9.8	1.1	10.1
2 Islamabad	1.7	14.8	2.6	8.7	1.2	18.3	1.7	14.7	2.6	8.3	1.1	19.8
3 Lahore	1.4	10.6	3.1	11.8	0.5	10.0	1.6	10.3	3.1	11.6	0.3	9.3
4 Gujranwala	1.0	5.4	1.8	5.0	0.6	5.7	1.2	5.7	2.0	5.2	0.5	6.1
5 Sialkot	2.2	7.6	2.9	8.8	1.9	6.9	2.3	7.3	2.8	8.4	1.9	6.5
6 Faisalabad	2.8	12.4	4.6	9.1	1.8	14.2	3.3	11.6	5.1	8.7	1.9	13.8
7 Multan	2.0	7.0	2.9	4.8	1.5	8.2	2.2	6.5	3.4	4.9	1.3	7.7
8 Sargodha	1.0	8.3	1.5	9.0	0.8	7.9	1.1	7.5	1.3	8.3	0.9	7.0
9 Bahawalpur	1.2	6.4	1.8	6.2	1.0	6.4	1.2	6.7	1.5	6.6	1.1	6.7
10 Karachi	2.5	9.8	3.8	11.6	1.7	8.8	2.7	9.5	3.8	10.6	1.7	8.6
11 Hyderabad	1.0	5.5	1.3	6.2	0.7	5.1	1.0	5.2	1.4	5.6	0.7	5.0
12 Sukkur	1.7	6.7	3.0	9.0	1.1	5.5	1.9	7.3	2.9	9.6	1.2	5.8
13 Larkana	0.9	8.9	1.6	6.4	0.6	10.1	1.4	8.1	2.3	6.9	0.8	8.9
14 Peshawar	1.1	9.0	3.1	7.6	0.2	9.8	1.4	8.2	2.9	6.9	0.4	9.0
15 Bannu	2.6	5.8	5.5	7.6	1.1	4.9	3.3	6.2	5.8	6.4	1.6	6.1
16 Quetta	1.9	5.8	4.5	5.6	0.6	6.0	2.2	5.7	4.7	5.8	0.3	5.6
17 Khuzdar	0.0	5.7	-0.6	8.2	0.3	4.5	-0.1	7.6	-0.5	11.0	0.2	5.3

Table A6: City- wise CPI Inflation (YoY) July, 2014

City	High inflation cities			City	Low inflation cities		
	General	Food	Non-food		General	Food	Non-food
Islamabad	14.7	8.3	19.8	Mianwali	7.8	5.4	9.5
Faisalabad	11.6	8.7	13.8	Khuzdar	7.6	11.0	5.3
Nawabshah	11.2	6.9	14.1	Sargodha	7.5	8.3	7.0
D.G. Khan	11.0	11.5	10.7	Sukkur	7.3	9.6	5.8
Lahore	10.3	11.6	9.3	Turbat	7.3	8.7	6.4
Rawalpindi	10.0	9.9	10.1	Sialkot	7.3	8.4	6.5
Karachi	9.5	10.6	8.6	Mingora	7.2	5.4	8.4
Sahiwal	9.4	8.2	10.3	Abbotabad	7.1	6.4	7.5
Mardan	8.7	1.7	12.9	Mithi	7.0	8.8	5.9
Jhang	8.5	7.5	9.2	Wazirabad	7.0	6.5	7.3
Muzaffargarh	8.2	8.6	7.8	Mir Pur Khas	6.9	8.8	5.6
Peshawar	8.2	6.9	9.0	Rahim Yar Khan	6.8	4.3	8.6
Larkana	8.1	6.9	8.9	Bahawalpur	6.7	6.6	6.7
Dera Mrd.Jamali	8.1	7.6	8.4	Dadu	6.6	7.0	6.3
				Multan	6.5	4.9	7.7
				Bannu	6.2	6.4	6.1
				Gawadar	6.0	6.5	5.6
				Attock	5.8	5.5	6.0
				Gujranwala	5.7	5.2	6.1
				Quetta	5.7	5.8	5.6
				Jehlum	5.4	3.5	6.8
				Hyderabad	5.2	5.6	5.0
				Loralai&Cantt	4.9	5.4	4.6
				D.I.Khan	3.9	1.7	5.5
				Bahawalnagar	3.7	2.7	4.4
				Vehari	3.2	0.7	5.0

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

Table A7: Income Group-wise Inflation (percent)						
	MoM			YoY		
	Jul-13	Jun-14	Jul-14	Jul-13	Jun-14	Jul-14
<u>Up to Rs. 8000</u>						
General	2.3	0.6	1.9	9.4	7.1	6.7
Food	3.0	0.9	2.7	10.2	6.7	6.4
Non-food	1.4	0.3	1.0	8.4	7.7	7.2
<u>Rs. 8001- 12000</u>						
General	2.2	0.6	1.9	8.9	7.2	6.8
Food	2.9	0.9	2.7	9.7	6.9	6.6
Non-food	1.4	0.3	0.9	8.0	7.5	7.0
<u>Rs. 12001- 18000</u>						
General	2.2	0.7	1.8	8.6	8.4	8.0
Food	3.0	1.0	2.7	9.5	7.1	6.8
Non-food	1.4	0.3	0.9	7.8	9.6	9.1
<u>Rs. 18001- 35000</u>						
General	2.1	0.7	1.7	8.5	8.6	8.2
Food	3.1	1.1	2.7	9.2	7.4	7.0
Non-food	1.3	0.3	0.9	7.8	9.6	9.2
<u>Above Rs. 35000</u>						
General	1.9	0.6	1.6	7.8	8.3	8.1
Food	3.0	1.1	2.7	8.7	7.7	7.4
Non-food	1.3	0.3	1.0	7.4	8.7	8.4
<u>All income groups</u>						
General	2.0	0.6	1.7	8.3	8.2	7.9
Food	3.0	1.0	2.7	9.2	7.4	7.0
Non-food	1.3	0.3	1.0	7.6	8.9	8.5

Table A8: SPI Item-wise Price Movements

Sr.No.	Items	Unit	Prices Jul-14	Percentage change	
				YoY	MoM
1	Wheat	10Kg.	344.9	4.0	1.8
2	Wheat Flour Bag	10Kg.	386.2	1.4	0.4
3	Rice Basmati Broken	Kg.	74.2	1.1	0.1
4	Rice Irri-6	Kg.	54.6	2.3	0.0
5	Bread Plain Med. Size (340-400 Gm.)	Each	40.6	13.7	0.1
6	Beef	Kg.	292.6	5.9	0.9
7	Mutton	Kg.	580.1	6.7	0.9
8	Chicken Live (Farm)	Kg.	165.0	-1.7	-0.1
9	Milk Fresh	Litr	75.0	10.4	0.6
10	Curd	Kg.	88.0	11.0	0.8
11	Milk Powdered Nido	500G	347.5	19.8	1.0
12	Egg Hen (Farm)	Doz.	88.8	10.7	7.6
13	Mustard Oil	Kg.	185.4	1.7	0.3
14	Cooking Oil (Tin)	2.5Ltr	540.3	0.5	-0.2
15	Veg. Ghee (Tin)	2.5Kg.	511.8	0.6	-0.1
16	Veg. Ghee Loose	Kg.	159.5	0.8	-0.2
17	Bananas	Doz.	113.1	33.3	6.4
18	Masoor Pulse Washed	Kg.	129.2	17.1	0.2
19	Moong Pulse Washed	Kg.	160.0	29.2	-0.5
20	Mash Pulse Washed	Kg.	150.1	15.3	0.6
21	Gram Pulse Washed	Kg.	74.5	-5.3	-1.1
22	Potatoes	Kg.	68.7	137.6	13.4
23	Onions	Kg.	39.7	-2.1	22.8
24	Tomatoes	Kg.	50.0	-43.0	55.4
25	Sugar	Kg.	55.9	2.9	3.9
26	Gur	Kg.	81.5	-4.0	0.9
27	Salt Powdered Loose (Lahori)	Kg.	9.9	8.8	0.4
28	Red Chilies Powder Loose	Kg.	249.6	16.0	1.9
29	Garlic	Kg.	121.1	0.5	3.2
30	Tea (Yellow Label)	200Gm.	124.2	-27.6	0.0
31	Cooked Beef Plate	Each	82.0	13.5	0.5
32	Cooked Dal Plate	Each	47.4	11.2	0.6
33	Tea Prepared (Sada)	Cup	18.4	15.7	1.5
34	Cigarettes K-2 (20'S)	20'S	44.8	19.7	5.4
35	Long Cloth (Coarse Latha)	Mtr.	198.8	16.8	1.2
36	Shirting	Mtr.	156.0	12.2	1.1
37	Lawn	Mtr.	237.6	25.3	3.6
38	Georgette (Voil Printed)	Mtr.	122.2	11.5	1.5
39	Sandal Gents Bata	Pair	699.0	16.7	0.0
40	Chappal Spong. Bata (Gents)	Pair	179.0	0.0	0.0
41	Sandal Ladies Bata	Pair	499.0	0.0	0.0
42	Electric Charges 1-50	Unit	2.0	0.0	0.0
43	Gas Charges upto 3.3719	Mmbtu	124.2	0.0	0.0
44	Kerosene	Litr	118.6	1.3	-0.1
45	Firewood	40Kg	554.4	9.2	0.0
46	Energy Savor 14 Watts	Each	165.2	3.2	0.0
47	Washing Soap (200-250 Gm.)	Cake	24.2	8.6	0.8
48	Match Box	Each	1.5	29.7	0.0
49	Petrol	Litr	109.5	5.8	0.0
50	Diesel	Litr	110.8	2.1	0.0
51	L.P.G.(11 Kg Cylinder.)	Each	1324.8	-11.0	6.1
52	Tele. Local Call	Call	3.9	0.0	0.0
53	Bath Soap Lifebuoy (Standard)	Cake	36.0	2.9	0.0
Maximum				137.6	55.4
Median				5.8	0.4
Minimum				-43.0	-1.1

Table A9: Distribution of Price Changes (YoY) - WPI Items: July 2014				
Groups	Decrease or no change	Subdued increase (Greater than 0% but less than 5%)	Moderate increase (5% but less than 10%)	Double digit increase (10% or more)
Agriculture Forestry & Fishery Products	Millet/Bajra, Vegetables, Poultry, Fibre Crops, Maize, Fish Live Fresh or Chilled, Sugar Crops	Hides and Fur Skins- Raw, Rice, Wheat	Raw Animal Material/Wool, Pulses, Fuel Wood in Logs, Eggs	Edible Roots/Potatoes, Stimulant and Spice Crops, Cotton Seeds, Fresh Fruits, Sorghum/Jowar, Unmanufactured Tobacco, Dry Fruits, Other Oil Seeds, Milk from Bovine Animals
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	Coffee and Tea, Nylon Yarn, Other Cereal Flour, Other Food Products, Cotton Yarn, Footwear, Spices, Dried Fruits & Nuts, Blended Yarn, Vegetable Ghee, Sugar Confectionary, Chocolate	Mineral Water, Silk and Rayon Fabrics, Fruit Juices, Wheat Flour, Vegetable Oil Refined, Sugar Refined, Vegetables & Fruit Juices, Synthetic Carpets	Dairy Products N.E.C, Woven Fabrics, Processed Liquid Milk, Ice Cream, Cotton Fabrics, Meat of Animals	Leather without Hairs, Oil Cakes, Woolen Carpets, Other Leather N.E.C, Beverages, Tobacco Products, Milk and Cream in Solid Form, Blankets, Ready Made Garments, Towels, Bed Sheets, Other Fabrics, Quilts, Hosiery Products
Other Transportable Goods except Metal Products, Machinery and Equipments	Coke, Matches	Printing Paper, Bed Foams, Medicines, Soaps & Detergent, Glass Sheets, Plastic Products, Diesel Oil, Auto Tyres, Furnace Oil, Fertilizers	Bricks Blocks and Tiles, Cement, Motor Sprit, Other Glass Articles, Mobil Oil	Insecticides, Dying Materials, Pesticides, Ceramics and Sanitary, Chemicals, Timber, Hard Board, Kerosene Oil, Paints & Varnishes
Metal Product Machinery & Equipment	Pig Iron, Engines and Motors, Vacuum Pumps, Concrete Mixer, Radio and Television	Motor Vehicles, Lighting Equipments, Chuff Cutter, Bicycles, Steel Products, Motor Cycles, Air Conditioners	Refrige,Wash& Sew Mach,Iron,Fan, Electrical Wires, Steel Bars & Sheets	Lathe Machines, Tractors, Cultivators, Pipe Fittings

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

Items and specification	Weights	Index		
		Jul-13	Jun-14	Jul-14
General	100.00	183.58	194.74	198.05
Food & Non-Alcoholic Beverages.	34.83	207.61	214.50	220.48
1 Wheat	0.35	194.81	200.35	203.12
2 Wheat Flour	4.16	204.57	213.46	214.47
3 Wheat Product	0.10	191.61	215.08	216.16
4 Besan	0.15	180.85	174.07	171.35
5 Rice	1.58	189.10	194.10	194.78
6 Cereals	0.16	219.23	235.80	237.23
7 Bakery & Confectionary	1.16	183.59	203.91	204.30
8 Nimco	0.46	208.18	230.82	232.48
9 Meat	2.43	225.18	237.75	238.64
10 Chicken	1.36	203.56	199.93	199.78
11 Fish	0.30	200.39	222.36	221.80
12 Milk Fresh	6.68	226.78	242.98	244.00
13 Milk Product	0.63	219.34	238.58	240.15
14 Milk Powder	0.11	192.03	221.55	223.66
15 Egg	0.46	167.03	167.66	177.27
16 Mustard Oil	0.10	158.64	158.12	158.40
17 Cooking Oil	1.75	161.62	161.96	161.87
18 Vegetable Ghee	2.07	155.82	158.34	157.83
19 Dry Fruits	0.25	217.86	234.85	237.98
20 Fresh Fruits	1.86	234.05	237.43	273.57
21 Pulse Masoor	0.27	157.42	180.68	180.20
22 Pulse Moong	0.23	237.14	301.11	301.58
23 Pulse Mash (Washed)	0.21	187.00	209.35	208.89
24 Pulse Gram	0.24	179.42	168.96	166.99
25 Gram Whole	0.16	187.26	179.88	179.25
26 Beans	0.03	228.13	240.36	240.10
27 Potatoes	0.47	211.16	403.63	469.93
28 Onion	0.53	249.51	195.07	230.52
29 Tomatoes	0.44	322.23	116.37	167.23
30 Fresh Vegetable	1.68	211.21	202.52	224.72
31 Sugar	1.04	195.93	195.32	201.28
32 Gur	0.02	261.46	253.67	257.03
33 Honey	0.04	256.65	284.59	288.66
34 Sweet Meet	0.25	211.81	226.62	227.84
35 Beverages	1.20	186.90	205.75	208.53
36 Jam, Tomato Ketchup & Pickle	0.25	187.26	194.91	196.07
37 Condiments	0.27	217.51	246.44	247.60
38 Spices	0.54	216.85	227.28	228.43
39 Tea	0.84	252.69	207.74	207.09
Alcoholic Beverages, Tobacco	1.41	217.46	259.28	265.82
40 Cigarette	1.39	217.93	260.26	266.88
41 Betel Leaves & Nuts	0.02	188.57	199.83	202.02
Clothing & Footwear	7.57	190.42	206.96	209.51
42 Cotton Cloth	1.73	177.82	201.94	206.19
43 Woolen Cloth	0.88	206.87	227.29	228.36
44 Ready Made Garment	0.97	185.06	206.29	210.19
45 Woolen Readymade Garments	0.40	192.45	218.34	218.34
46 Hosiery	0.51	195.40	219.18	220.45
47 Dopatta	0.44	205.47	225.05	225.70
48 Cleaning & Laundering	0.21	208.19	228.30	229.21

Table A10: Consumer Price Index Numbers by Major Groups and Composite Commodities				
Items and specification	Weights	Index		
		Jul-13	Jun-14	Jul-14
49 Tailoring	0.88	226.68	247.32	253.71
50 Footwear	1.55	168.99	163.50	163.78
Housing,Water,Elect,Gas & Other Fuel	29.41	157.54	169.53	171.62
51 House Rent	21.81	148.24	157.05	159.82
52 Construction Input Item	0.56	214.61	232.72	234.10
53 Construction Wage Rate	0.33	185.33	199.53	200.14
54 Water Supply	0.50	141.36	149.92	149.92
55 Electricity	4.40	196.37	227.44	227.44
56 Gas	1.58	143.81	143.81	143.81
57 Kerosene Oil	0.01	274.98	278.77	278.37
58 Fire Wood Whole	0.23	244.09	265.16	264.49
Furnished H.Hold Equip.& Maint. Etc	4.21	187.23	204.09	204.42
59 Furniture	0.33	177.21	194.71	195.17
60 Household Textile	0.65	182.53	199.85	199.95
61 Household Equipment	0.59	162.88	170.58	170.88
62 Utensils	0.32	185.91	205.72	206.30
63 Plastic Products	0.25	183.11	195.76	195.95
64 Washing Soap & Detergent	0.79	204.48	220.60	221.06
65 Sewing Needle & Dry Cell	0.15	166.67	180.69	182.15
66 Household Servant	1.04	197.48	219.71	219.87
67 Marriage Hall Charges	0.08	201.35	224.03	224.45
Health	2.19	161.45	172.79	173.40
68 Drug Medicine	1.27	141.18	145.57	145.59
69 Medical Equipment	0.01	205.49	219.76	220.36
70 Doctor (MBBS) Clinic Fee	0.59	204.66	232.41	234.15
71 Medical Test	0.32	160.87	169.35	170.28
Transport	7.20	188.83	195.27	198.38
72 Motor Vehicle	0.66	158.19	160.00	160.37
73 Motor Vehicle Accessories	0.24	217.18	228.31	228.75
74 Motor Fuel	3.03	181.80	186.72	190.45
75 Mechanical Service	0.46	190.80	206.25	206.25
76 Motor Vehicle Tax	0.11	153.74	153.74	210.18
77 Transport Services	2.70	202.74	210.36	212.03
Communication	3.22	129.62	129.88	129.85
78 Postal Services	0.07	215.89	215.89	215.95
79 Communication & Apparatus	3.15	127.81	128.07	128.05
Recreation & Culture	2.02	178.48	188.74	188.76
80 Recreation & Culture	0.86	123.55	127.44	127.43
81 Text Books	0.57	260.03	279.73	279.73
82 News Papers	0.19	170.49	175.42	175.42
83 Stationery	0.40	184.67	197.77	197.92
Education	3.94	164.25	190.90	191.33
84 Education	3.94	164.25	190.90	191.33
Restaurants And Hotels	1.23	213.87	238.76	239.23
85 Ready Made Food	1.23	213.87	238.76	239.23
Miscellaneous Goods And Services	2.76	200.91	215.12	216.98
86 Personal Care	1.49	185.88	199.48	200.54
87 Cosmetics	0.39	166.59	182.74	183.13
88 Blades	0.03	177.70	184.61	184.82
89 Personal Equipments	0.84	244.06	258.73	262.76

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

Items and Specifications	Index		
	Jul-13	Jun-14	Jul-14
General	202.49	214.60	215.76
Agriculture Forestry & Fishery	214.77	228.53	230.64
1 Wheat	206.16	205.99	207.97
2 Maize	193.96	189.74	191.76
3 Rice	177.08	180.08	179.66
4 Sorghum/Jowar	270.15	316.79	323.08
5 Millet/Bajra	193.87	173.02	174.47
6 Vegetables	273.46	205.05	247.48
7 Fresh Fruits	253.15	283.76	321.25
8 Dry Fruits	192.88	219.20	217.95
9 Cotton Seeds	165.17	219.90	231.50
10 Other Oil Seeds	169.50	182.36	190.46
11 Edible Roots/ Potatoes	188.79	472.92	543.47
12 Stimulant And Spice Crops	231.75	472.58	460.25
13 Pulses	184.78	200.37	198.96
14 Sugar Crops	267.92	267.92	267.92
15 Fibre Crops	210.28	220.08	201.65
16 Unmanufactured Tobacco	176.34	196.08	204.74
17 Poultry	215.62	207.92	206.33
18 Milk From Bovine Animals	220.27	240.49	242.57
19 Eggs	167.37	166.88	176.03
20 Raw Animal Material/Wool	151.73	157.03	164.70
21 Hides And Fur Skins, Raw	140.52	145.85	146.12
22 Fuel Wood In Logs	230.69	243.47	243.47
23 Fishes Live Fresh Or Chilled	247.49	250.37	246.21
Ores/Minerals, Gas & Elect.	215.17	242.45	242.67
24 Coal Not Agglomerated	223.53	223.53	223.53
25 Natural Gas Liquefied	203.74	201.86	202.34
26 Salt & Pure Sodium Chloride	204.73	243.18	243.18
27 Electrical Energy	226.10	287.44	287.44
Food, Beverages, Tobacco, Textiles	195.21	204.31	205.50
28 Meat Of Animals	232.94	243.10	246.01
29 Vegetables & Fruit Juices	190.74	194.02	194.12
30 Dried Fruits & Nuts	222.76	217.80	217.80
31 Fruit Juices	164.49	170.89	171.20
32 Vegetable Oil Refined	160.21	165.47	164.33
33 Vegetable Ghee	141.00	140.01	140.35
34 Oil Cakes	175.62	217.25	232.05
35 Processed Liquid Milk	205.54	223.02	223.02
36 Milk And Cream In Solid Form	178.39	211.32	212.82
37 Ice Cream	204.00	214.21	219.91
38 Dairy Products N.E.C	216.21	235.64	235.94
39 Wheat Flour	190.04	196.01	195.47
40 Other Cereal Flour	150.06	139.38	138.16
41 Sugar Refined	212.01	208.70	216.56
42 Chocolate	99.19	99.19	99.19
43 Sugar Confectionary	102.28	102.28	102.28
44 Coffee And Tea	229.54	185.89	184.43
45 Spices	197.26	191.67	191.70
46 Other Food Products	316.68	293.72	293.72
47 Mineral Water	177.53	185.23	185.63
48 Beverages	139.35	166.38	167.46
49 Tobacco Products	242.41	290.52	290.52
50 Cotton Yarn	210.89	200.42	200.42
51 Nylon Yarn	188.58	162.34	161.40
52 Blended Yarn	197.47	192.59	193.60
53 Woven Fabrics	208.98	226.82	226.82
54 Cotton Fabrics	183.43	196.81	196.81
55 Other Fabrics	175.06	197.56	197.56

Table A11: Wholesale Price Index Numbers by Major Groups and Composite Commodities				
		Index		
Items and Specifications		Jul-13	Jun-14	Jul-14
56 Silk And Rayon Fabrics		159.34	165.85	165.85
57 Towels		213.19	242.19	242.19
58 Blankets		185.21	219.66	219.66
59 Bed Sheets		213.18	242.12	242.12
60 Quilts		156.32	172.42	172.42
61 Woolen Carpets		106.55	113.69	132.14
62 Synthetic Carpets		114.41	116.10	116.10
63 Hosiery Products		185.30	202.13	204.27
64 Ready Made Garments		150.00	169.33	175.43
65 Leather With Out Hairs		132.51	223.51	223.51
66 Other Leather N.E.C		203.07	276.72	249.44
67 Footwear's		139.49	134.22	134.22
Other Transportable Goods		206.44	214.75	215.63
68 Timber		157.52	182.14	184.69
69 Printing Paper		164.45	172.62	172.62
70 Hard Board		200.00	229.17	229.17
71 Coke		163.45	163.45	163.45
72 Motor Sprit		171.92	182.40	182.40
73 Diesel Oil		254.92	260.69	260.69
74 Kerosene Oil		256.74	288.01	288.01
75 Furnace Oil		171.62	172.01	173.10
76 Mobil Oil		191.04	200.28	201.17
77 Chemicals		163.56	189.08	193.10
78 Dying Materials		107.23	143.77	143.77
79 Fertilizers		268.23	267.48	268.66
80 Pesticides		208.72	254.27	262.86
81 Insecticides		124.43	181.89	181.89
82 Paints & Varnishes		247.56	275.71	275.71
83 Medicines		138.83	142.22	144.21
84 Soaps & Detergent		176.55	183.11	183.11
85 Auto Tyres		185.57	188.21	188.21
86 Plastic Products		198.15	203.08	203.08
87 Glass Sheets		203.49	209.86	209.86
88 Other Glass Articles		206.09	218.27	218.27
89 Ceramics And Sanitary		164.06	201.75	200.07
90 Bricks Blocks And Tiles		184.78	200.57	201.73
91 Cement		194.83	207.76	207.76
92 Bed Foams		144.33	150.83	150.83
93 Matches		143.20	143.20	143.20
Metal Product Machinery & Equip		164.46	171.26	171.57
94 Pig Iron		128.97	128.97	128.97
95 Steel Bars & Sheets		138.21	144.30	146.08
96 Pipe Fittings		149.13	175.34	175.34
97 Steel Products		167.61	170.24	170.24
98 Engines And Motors		109.07	109.07	109.07
99 Vacuum Pumps		115.39	115.39	115.39
100 Air Conditioners		179.78	181.12	181.12
101 Cultivators		189.23	226.90	226.90
102 Chuff Cutter		144.94	149.20	149.20
103 Tractors		161.96	214.54	214.54
104 Lathe Machines		147.68	208.81	208.81
105 Concrete Mixer		138.83	138.83	138.83
106 Refrige,Wash& Sew Mach, Iron,Fan		179.92	195.75	195.93
107 Electrical Wires		167.53	179.18	179.18
108 Lighting Equipments		159.47	164.95	164.95
109 Radio And Television		126.49	126.49	126.49
110 Motor Vehicles		173.99	182.59	182.59
111 Motor Cycles		124.80	126.70	126.70
112 Bicycles		178.81	182.84	182.84

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
2012-13		174.53	195.18	162.16	194.61	197.21	192.95	189.64
2013-14		189.58	212.74	175.69	210.48	213.04	208.85	208.66
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	188.21
	Oct	173.10	193.66	160.77	192.88	196.21	190.77	187.32
	Nov	172.42	193.03	160.07	192.16	193.02	191.61	187.35
	Dec	172.82	192.97	160.74	192.98	195.49	191.39	187.95
2013	Jan	175.70	196.58	163.19	195.39	198.81	193.22	190.89
	Feb	175.11	194.05	163.76	196.06	197.22	195.32	190.79
	Mar	175.82	195.06	164.29	196.57	196.02	196.92	192.01
	Apr	177.74	197.74	165.75	198.09	199.00	197.51	192.02
	May	178.65	200.00	165.85	197.23	201.14	194.75	191.96
	Jun	179.94	202.11	166.65	199.21	204.60	195.79	196.75
	Jul	183.58	208.19	168.83	202.49	209.34	198.15	200.80
	Aug	185.71	212.27	169.79	207.85	211.45	205.57	203.29
	Sep	185.18	209.09	170.85	209.33	211.29	208.09	203.05
	Oct	188.82	212.61	174.56	211.70	213.26	210.71	207.69
	Nov	191.21	218.16	175.06	212.22	215.77	209.97	214.76
	Dec	188.68	210.89	175.37	210.11	210.28	210.00	210.78
2014	Jan	189.60	210.81	176.89	211.23	209.87	212.10	208.99
	Feb	189.00	208.74	177.17	210.94	208.67	212.38	208.54
	Mar	190.82	213.11	177.46	211.66	212.89	210.88	212.08
	Apr	194.06	217.33	180.11	211.88	216.70	208.82	211.78
	May	193.55	214.75	180.84	211.71	215.95	209.02	209.80
	Jun	194.74	216.98	181.41	214.60	221.06	210.50	212.40
	Jul	198.05	222.80	183.21	215.76	225.52	209.57	216.14

*: all groups combined

Table A13: International Commodity Prices/ Indices				
	Apr-14	May-14	Jun-14	Jul-14
Energy				
Crude Oil (US\$ per barrel) *	104.9	105.7	108.4	105.2
IMF Energy Index (2005 = 100)	192.2	193.4	197.1	190.6
WB Energy Index (2010 = 100) @	128.4	129.0	131.4	126.9
Food				
Rice (\$/MT)	409.9	403.6	414.7	428.0
Wheat (\$/MT)	324.9	334.7	306.5	280.4
Sugar (US cent/ pound)	18.2	18.2	18.1	17.2
Palm Oil (\$/MT)	825.3	800.3	758.5	752.9
Soybean Oil (\$/MT)	934.1	893.5	871.6	813.9
Non-Food Non-Energy				
Cotton Outlook 'A' Index #	94.2	92.7	90.9	83.8
IMF Metal Price Index (2005 = 100)	169.5	164.5	161.8	168.8
Copper (\$/MT)	6,673.6	6,891.1	6,821.1	7,113.4
Aluminum (\$/MT)	1,810.7	1,751.1	1,839.0	1,948.3
Iron Ore (\$ cents/dry MT)	114.6	100.6	92.7	96.1
Tin (\$/MT)	23,405.2	23,271.3	22,762.0	22,424.0
Nickle (\$/MT)	17,373.6	19,401.1	18,628.8	19,117.7
Zinc (\$/MT)	2,027.2	2,059.0	2,128.1	2,310.6
Lead (\$/MT)	2,087.1	2,097.3	2,106.9	2,193.2
Uranium (\$/MT)	32.9	28.7	28.2	28.4
DAP (\$/MT)	470.6	444.6	461.5	499.4
Urea (\$/MT)	291.1	299.1	297.9	301.7
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	FY12	FY13	FY14	FY15
Jul	154.72	169.57	183.58	198.05
Aug	156.88	171.09	185.71	
Sep	158.50	172.44	185.18	
Oct	160.79	173.10	188.82	
Nov	161.25	172.42	191.21	
Dec	160.12	172.82	188.68	
Jan	162.58	175.70	189.60	
Feb	163.07	175.11	189.00	
Mar	164.98	175.82	190.82	
Apr	168.00	177.74	194.06	
May	169.93	178.65	193.55	
Jun	169.99	179.94	194.74	
Seasonally Adjusted Series				
Jul	154.55	169.34	182.97	197.69
Aug	155.82	169.87	184.35	
Sep	157.44	171.30	183.94	
Oct	159.35	171.57	187.17	
Nov	160.23	171.27	189.85	
Dec	160.87	173.64	189.56	
Jan	162.80	175.92	189.82	
Feb	164.51	176.69	190.72	
Mar	166.04	176.99	192.12	
Apr	167.95	177.65	193.96	
May	170.68	179.54	194.55	
Jun	170.89	180.97	195.87	

Table 15. CPI Food Data Series Original and Seasonally Adjusted				
Original Series				
Period	FY12	FY13	FY14	FY15
Jul	174.80	190.72	208.19	222.80
Aug	177.32	192.47	212.27	
Sep	180.16	193.80	209.09	
Oct	183.07	193.66	212.61	
Nov	183.26	193.03	218.16	
Dec	179.21	192.97	210.89	
Jan	181.90	196.58	210.81	
Feb	180.69	194.05	208.74	
Mar	183.46	195.06	213.11	
Apr	187.43	197.74	217.33	
May	187.75	200.00	214.75	
Jun	187.35	202.11	216.98	
Seasonally Adjusted Series				
Jul	174.17	189.87	207.10	221.52
Aug	174.67	189.45	208.85	
Sep	177.16	190.54	205.53	
Oct	179.69	190.17	208.87	
Nov	180.51	189.98	214.59	
Dec	180.55	194.44	212.44	
Jan	182.70	197.43	211.74	
Feb	184.44	198.15	213.21	
Mar	185.86	197.68	216.00	
Apr	188.12	198.40	218.08	
May	189.71	202.29	217.31	
Jun	189.65	204.71	219.81	

Table 16: CPI Monthly & Average Seasonal Factors					
Period	FY12	FY13	FY14	FY15	Average
Jul	100.11	100.14	100.34	100.18	100.19
Aug	100.68	100.72	100.74		100.71
Sep	100.67	100.67	100.68		100.67
Oct	100.90	100.89	100.88		100.89
Nov	100.64	100.67	100.72		100.67
Dec	99.53	99.53	99.54		99.53
Jan	99.87	99.88	99.88		99.88
Feb	99.12	99.11	99.10		99.11
Mar	99.36	99.34	99.33		99.34
Apr	100.03	100.05	100.05		100.04
May	99.56	99.51	99.49		99.52
Jun	99.47	99.43	99.42		99.44

Table 17: CPI Food Monthly & Average Seasonal Factors					
Period	FY12	FY13	FY14	FY15	Average
Jul	100.36	100.45	100.53	100.58	100.48
Aug	101.52	101.59	101.64		101.58
Sep	101.70	101.71	101.73		101.71
Oct	101.88	101.84	101.79		101.84
Nov	101.52	101.60	101.66		101.60
Dec	99.26	99.24	99.27		99.26
Jan	99.56	99.57	99.56		99.56
Feb	97.97	97.93	97.90		97.93
Mar	98.71	98.68	98.66		98.68
Apr	99.63	99.67	99.66		99.65
May	98.97	98.87	98.82		98.89
Jun	98.79	98.73	98.71		98.74

Table 18: CPI Month-on-Month % Change Original & Seasonally Adjusted				
Original Series				
Period	FY12	FY13	FY14	FY15
Jul	1.27	-0.25	2.02	1.70
Aug	1.40	0.90	1.16	
Sep	1.03	0.79	-0.29	
Oct	1.44	0.38	1.97	
Nov	0.29	-0.39	1.27	
Dec	-0.70	0.23	-1.32	
Jan	1.54	1.67	0.49	
Feb	0.30	-0.34	-0.32	
Mar	1.17	0.41	0.96	
Apr	1.83	1.09	1.70	
May	1.15	0.51	-0.26	
Jun	0.04	0.72	0.61	
Seasonally Adjusted Series				
Jul		-0.91	1.10	0.93
Aug	0.82	0.32	0.75	
Sep	1.04	0.84	-0.22	
Oct	1.21	0.16	1.76	
Nov	0.55	-0.17	1.43	
Dec	0.40	1.38	-0.16	
Jan	1.20	1.31	0.14	
Feb	1.05	0.44	0.47	
Mar	0.93	0.17	0.73	
Apr	1.15	0.37	0.96	
May	1.63	1.06	0.30	
Jun	0.12	0.80	0.68	

Table 19: CPI Food Month-on-Month % Change Original & Seasonally Adjusted				
Original Series				
Period	FY12	FY13	FY14	FY15
Jul	2.90	1.80	3.01	2.68
Aug	1.44	0.92	1.96	
Sep	1.60	0.69	-1.50	
Oct	1.62	-0.07	1.68	
Nov	0.10	-0.33	2.61	
Dec	-2.21	-0.03	-3.33	
Jan	1.50	1.87	-0.04	
Feb	-0.66	-1.29	-0.98	
Mar	1.53	0.52	2.10	
Apr	2.16	1.37	1.98	
May	0.17	1.15	-1.19	
Jun	-0.21	1.05	1.04	
Seasonally Adjusted Series				
Jul		0.12	1.17	0.78
Aug	0.29	-0.22	0.84	
Sep	1.42	0.57	-1.59	
Oct	1.43	-0.19	1.63	
Nov	0.45	-0.10	2.74	
Dec	0.02	2.35	-1.00	
Jan	1.19	1.54	-0.33	
Feb	0.95	0.36	0.70	
Mar	0.77	-0.24	1.30	
Apr	1.21	0.37	0.97	
May	0.84	1.96	-0.35	
Jun	-0.03	1.20	1.15	

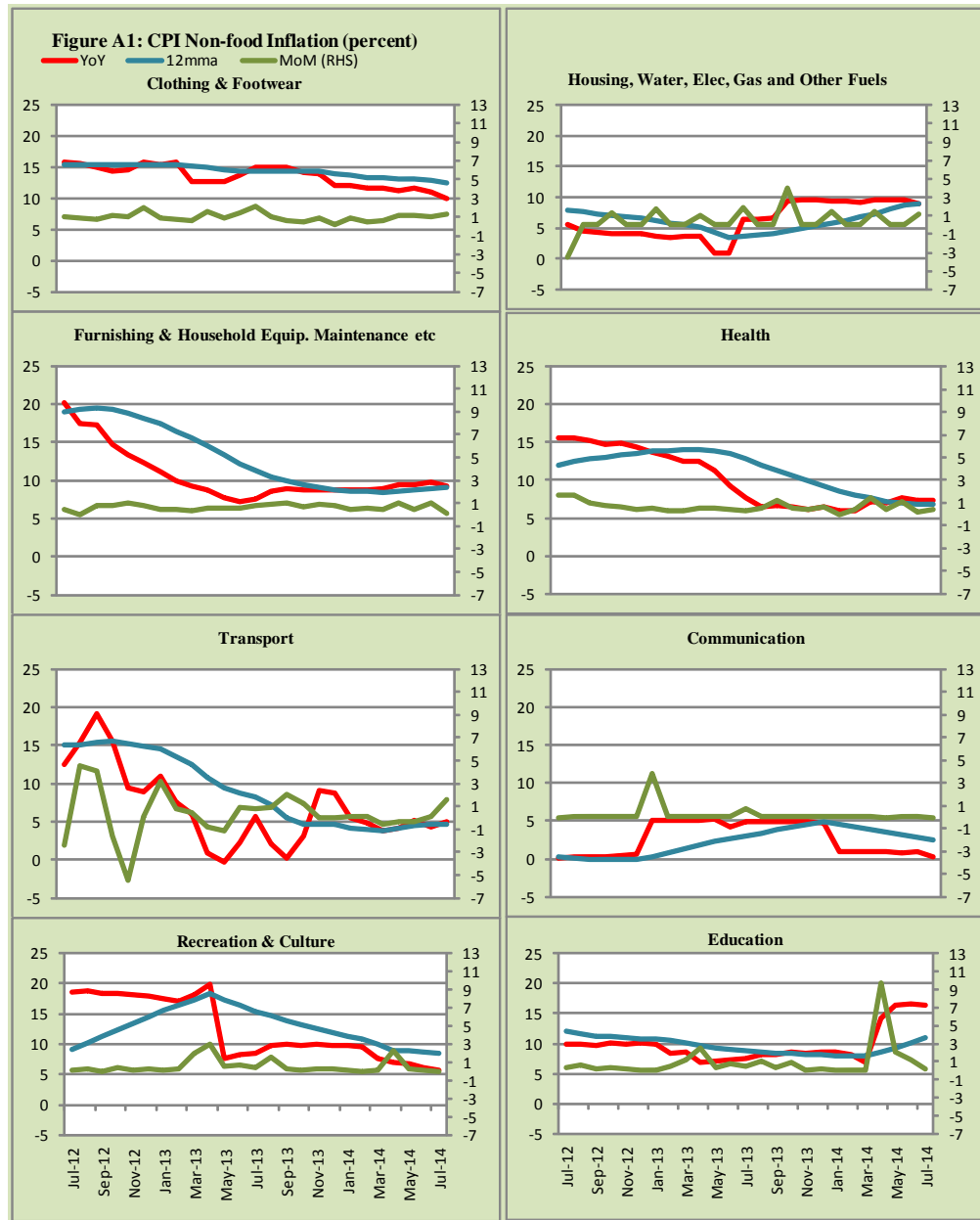


Figure A2: Frequency Distribution of Price Changes of CPI Items, July 2014

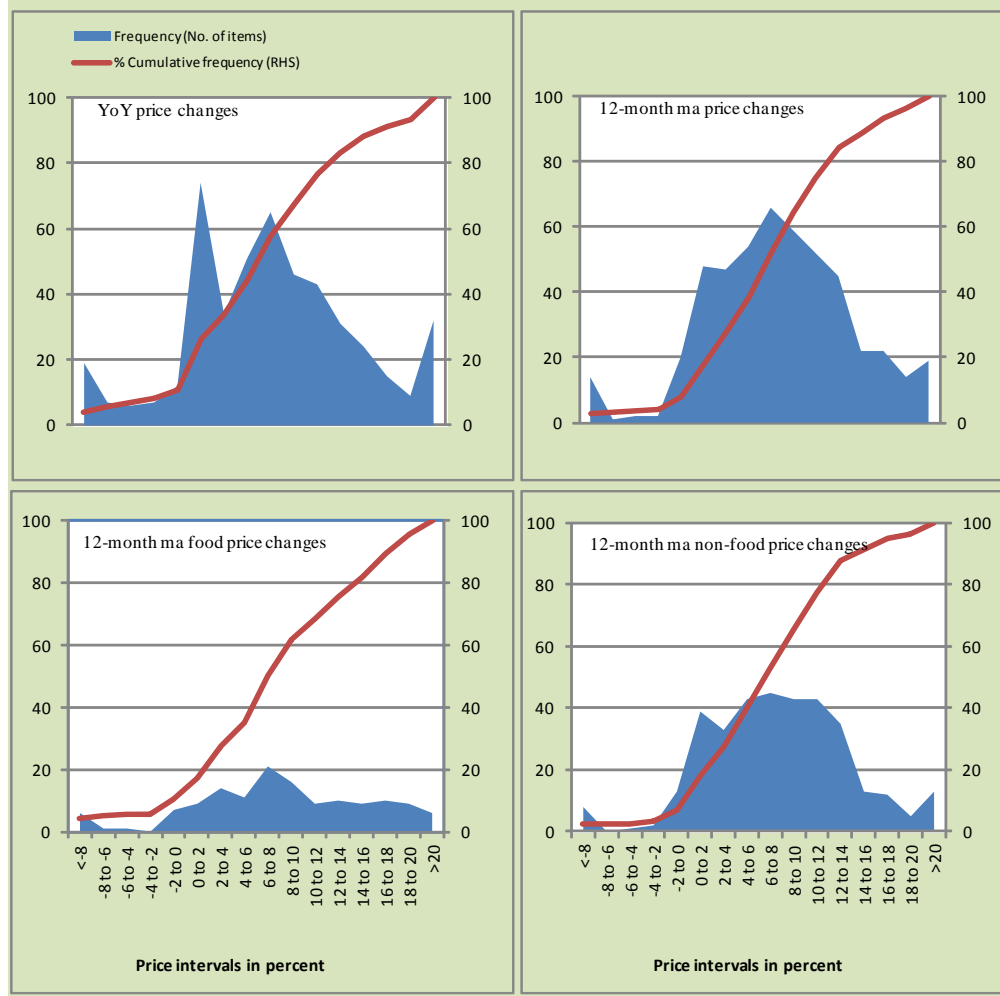


Figure A3: Frequency Distribution of Price Changes of WPI Commodities, July 2014

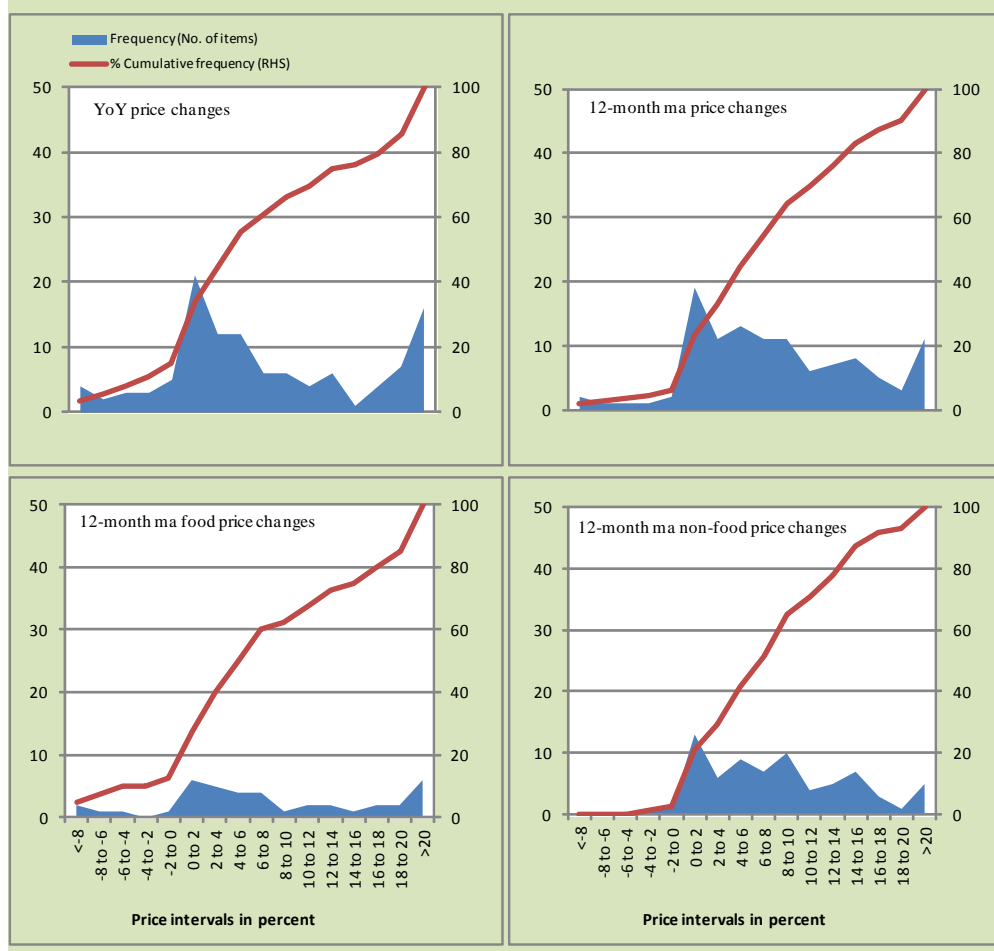
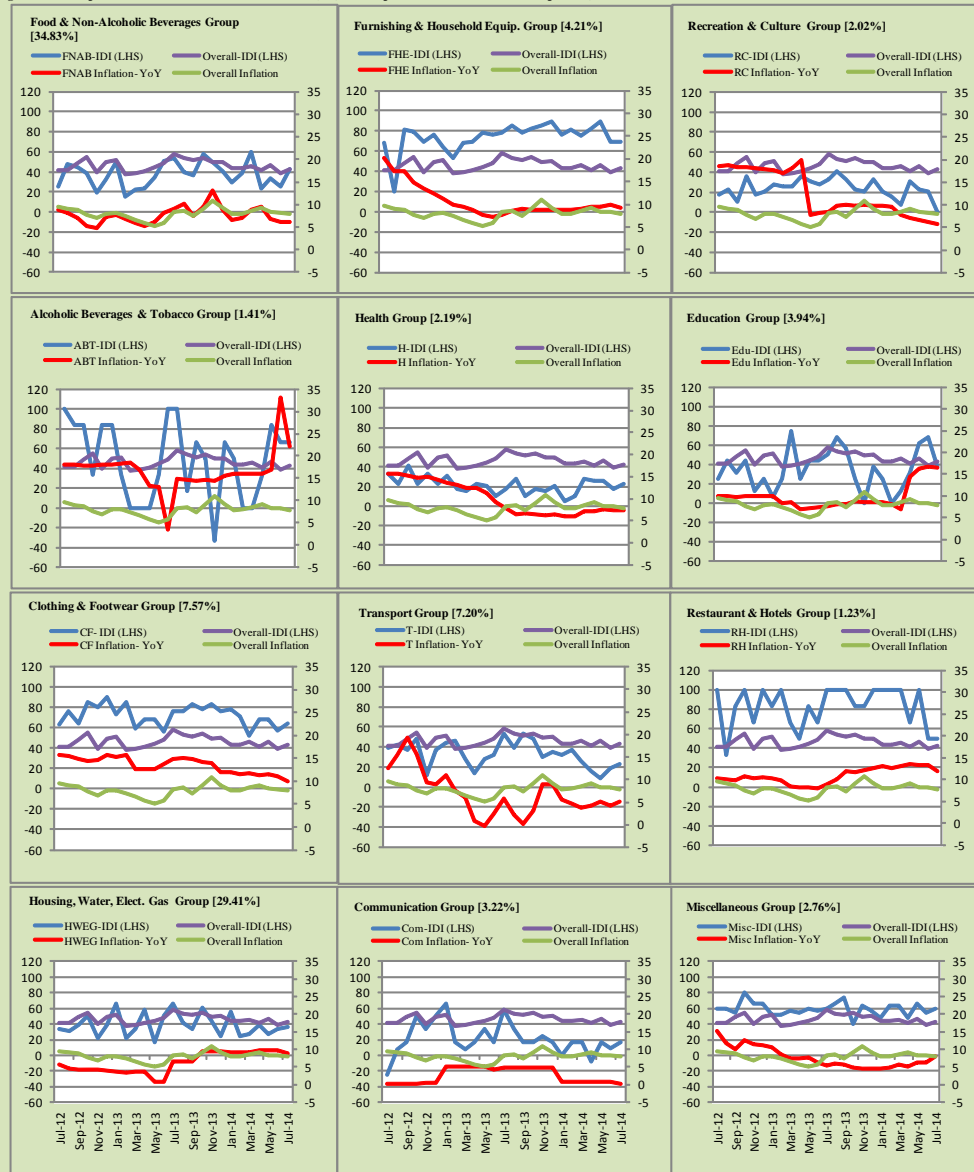


Figure A4: Group-wise/ Overall Inflation Diffusion Index (IDI) and respective/ overall YoY Inflation (percent)



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 three 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:

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.
- c) Relatively Stable Component of CPI (RSC-CPI) developed by State Bank of Pakistan is a hybrid method based on permanent exclusion criteria. Volatile price items, to be excluded in the newly proposed

measure RSC-CPI, are identified by analyzing the list and frequency of commodities that have been trimmed frequently in the past while computing monthly weighted trimmed mean measure. Commodities that were trimmed out 13 and above times since July 2008 to February 2013 are selected for permanently excluding from the CPI basket. This newly developed component includes a mix of both food and non-food commodities that show persistent price behavior. Fifty Commodities included comprise relatively stable component (RSC-CPI) with a weight of 67.69. The detailed methodology of RSC-CPI and group wise items along their weights can be viewed at the following link;

<http://www.sbp.org.pk/publications/wpapers/2013/wp66.pdf>

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.