

# **Inflation Monitor**

**June 2008**



**State Bank of Pakistan**

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## Overview

Inflationary pressures remained strong in the economy during June 2008 with headline CPI inflation (YoY) recorded at 21.5 percent compared to only 7.0 percent in the same month last year. This significant rise in CPI inflation was contributed by food as well as non-food CPI inflation. Food inflation (YoY) was registered at 32.0 percent in June 2008 compared to 9.7 percent in the corresponding month last year. This was due to an upward pressure on the prices of some key food staples such as wheat, vegetable ghee, rice and milk. Similarly non-food inflation (YoY) also accelerated and was recorded at 13.8 percent during the month under review compared to 5.1 percent in June 2007. A significant increase in *transport & communication* sub-group's inflation was recorded during June 2008 reflecting the impact of recent price adjustments in fuel and transport fares. *House rent index* (HRI) sub-group has also shown acceleration since February 2008, reflecting rising prices of metals and cement. Other measures of inflation, wholesale price index (WPI) and sensitive price indicator (SPI) also showed significant upward movements on YoY basis during June 2008 (see **Table 1.1**).

**Table 1.1: Inflation (YoY)**

	percent						
	CPI			Core Inflation		WPI	SPI**
	General	Food	Non-food	NFNE *	Trimmed		
Jun-07	7.0	9.7	5.1	5.7	6.5	7.3	8.0
Jul-07	6.4	8.5	4.9	6.0	6.6	7.6	7.5
Aug-07	6.5	8.6	4.9	6.0	6.7	8.0	7.6
Sep-07	8.4	13.0	5.0	6.1	8.0	9.3	9.8
Oct-07	9.3	14.7	5.4	6.5	8.3	11.8	10.7
Nov-07	8.7	12.5	5.9	6.9	8.6	12.6	9.0
Dec-07	8.8	12.2	6.3	7.2	8.7	12.2	9.2
Jan-08	11.9	18.2	7.3	7.8	9.6	15.5	13.1
Feb-08	11.3	16.0	7.8	8.1	9.6	16.4	12.3
Mar-08	14.1	20.6	9.4	9.3	11.3	19.8	16.2
Apr-08	17.2	25.5	11.2	10.8	14.1	23.5	22.3
May-08	19.3	28.5	12.5	12.3	15.1	28.2	26.2
Jun-08	21.5	32.0	13.8	13.0	17.2	30.6	26.3

\* NFNE is Non-food non-energy; \*\*SPI for all income groups combined.

Annualized CPI inflation surpassed the target of 6.5 percent set for FY08 and was recorded at 12.0 percent in FY08 compared to 7.8 percent in FY07. This surge in annualized inflation is attributed to both food and non-food components of CPI. Annualized food inflation (YoY) and non-food inflation reached 17.6 percent and 7.9 percent respectively from 10.3 percent and 6.0 percent in FY07.

CPI inflation on month-on-month (MoM) basis also showed strength during June 2008. Monthly CPI inflation was recorded at 2.1 percent during June 2008 compare to 0.2 percent inflation recorded in June 2007. CPI food inflation (MoM) remained at 2.5 percent during June 2008, due to increasing prices of rice, pulses, wheat, vegetable ghee, cooking oil etc. Non-food inflation witnessed an increase of 1.8 percent on MoM basis during the month under review (see **Table 1.2**). Rise in non-food monthly inflation was mainly due to an increase in the prices of items included in the *transport & communication and fuel & lighting* sub-

**Table 1.2: Different Dimensions of Inflation (percent)**

	June-06	June-07	June-08	5-year average#
<b>Year-on-year (June over June)</b>				
Overall CPI	7.6	7.0	21.5	6.8
Food group	7.8	9.7	32.0	8.2
Non-food group	7.5	5.1	13.8	5.8
<b>Core Inflation</b>				
NFNE*	6.5	5.7	13.0	5.7
Trimmed	6.5	6.5	17.2	6.1
<b>Period average (July-June over July-June)</b>				
Overall CPI	7.9	7.8	12.0	6.5
Food group	6.9	10.3	17.6	7.7
Non-food group	8.6	6.0	7.9	5.7
<b>Core Inflation</b>				
NFNE*	7.5	5.9	8.4	5.4
Trimmed	7.0	6.9	10.2	5.9
<b>12-month moving average</b>				
Overall CPI	7.9	7.8	12.0	6.5
Food group	6.9	10.3	17.6	7.7
Non-food group	8.6	6.0	7.9	5.7
<b>Core Inflation</b>				
NFNE*	7.5	5.9	8.4	5.4
Trimmed	7.0	6.9	10.2	5.9
<b>Monthly (June over May)</b>				
Overall CPI	0.6	0.2	2.1	0.4
Food group	1.2	-0.3	2.5	0.2
Non-food group	0.2	0.6	1.8	0.5
<b>Core Inflation</b>				
NFNE*	0.3	0.7	1.3	0.5
Trimmed	0.3	0.8	1.9	0.5

\* NFNE is Non-food non-energy inflation

# 5-year average excluding FY08

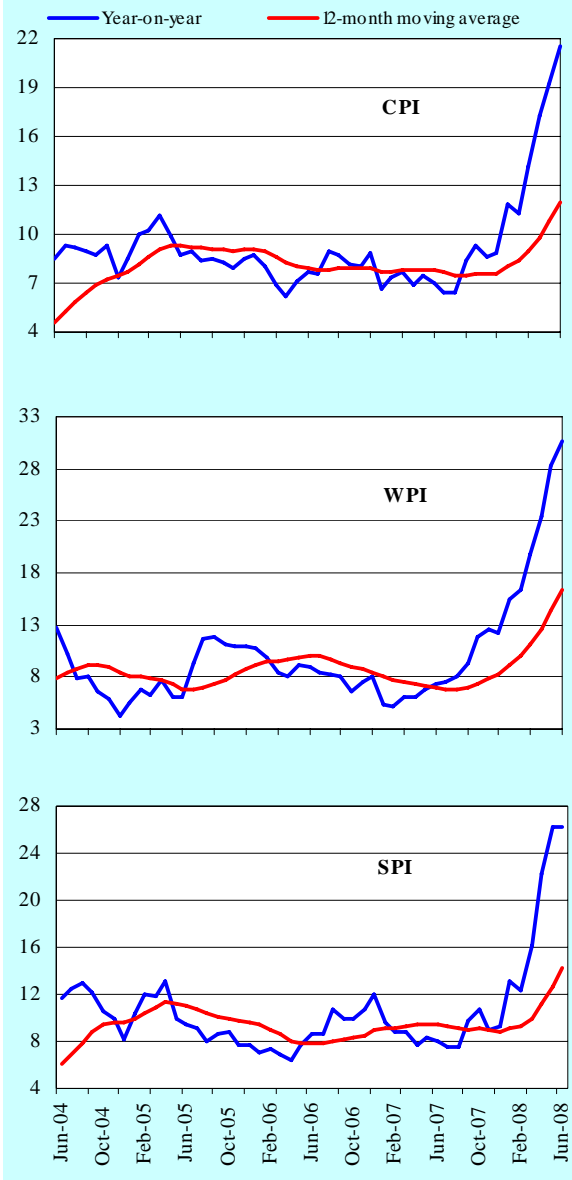
groups, reflecting the impact of price adjustment of key fuels and utilities (gas and electricity) by the government and their impact on transport fares.

Core inflation measured by (non-food non-energy and 20 percent trimmed mean) showed persistent acceleration throughout FY08. Core inflation (YoY) based on NFNE accelerated to 13.0 percent during the month under review from 5.7 percent in June 2007. Core inflation (YoY) based on 20 percent trimmed-mean also showed significant rise and was recorded at 17.2 percent during June 2008 compared to 6.5 percent during corresponding month last year.

The Wholesale price index (WPI) inflation remained strong during FY08. WPI inflation (YoY) registered a significant increase from 7.3 percent during June 2007 to record high level of 30.6 percent in June 2008. This significant increase in WPI inflation was contributed by both food and non-food groups. Inflation in WPI food group reached at 30.2 percent (YoY) during June 2008, compared to 11.2 percent in corresponding month last year, and non-food inflation (YoY) was recorded at 31.0 percent in June 2008 compared to 4.6 percent during June 2007.

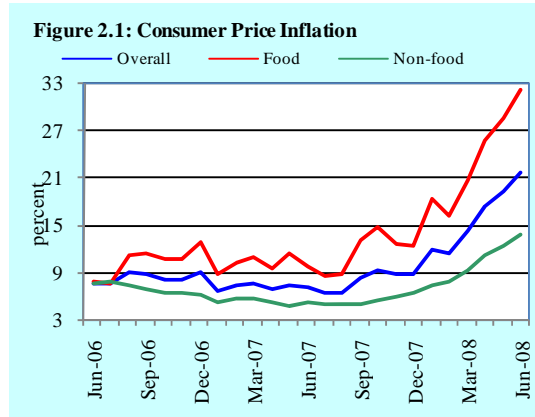
Sensitive price indicator (SPI) continued to increase during FY08 and was recorded at 26.3 percent (YoY) during June 2008 compared to 8.0 percent in the same month last year (see **Figure 1.1**).

**Figure 1.1: Movements in Price Indices (percent change)**

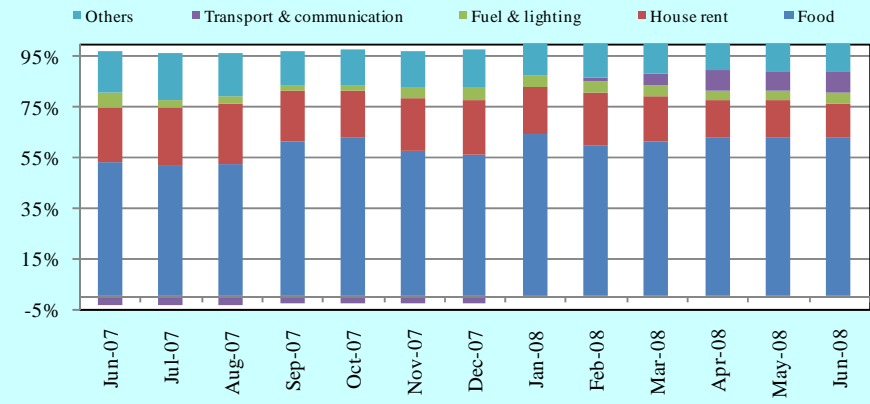


## 2. Consumer Price Index

The underlying inflationary pressures in the economy remained strong as prices continued to increase. Consumer price index (CPI) registered record high inflation on YoY basis and reached 21.5 percent in June 2008 compared to 7.0 percent in June 2007. The consistent rise in CPI inflation was contributed by both food and non-food groups. Food inflation reached 32.0 percent in June 2008, compared to 9.7 percent in the same month last year. Non-food inflation (YoY) has remained in double digits since last three months and was recorded at 13.8 percent during June 2008 compared to 5.1 percent in June 2007 (see **Figure 2.1**).



**Figure 2.2: Weighted Contribution to CPI Inflation (YoY)**



Weighted contribution of food group in overall inflation showed an increase of 5.9 percentage points as compared to June 2007 and rose to 63.0 percent in June 2008. Among non-food group, the weighted contribution of *transport & communication* sub-group increased and was registered at 8.5 percent during June 2008 as compared to (-) 3.5 percent during the same month last year (see **Figure 2.2**).



## 2.1 Food Inflation

CPI food inflation (YoY) reached to 32.0 percent in June 2008 as compared to 9.7 percent in June 2007. It is important to mention that food prices<sup>1</sup> in international market also remained strong during June 2008.

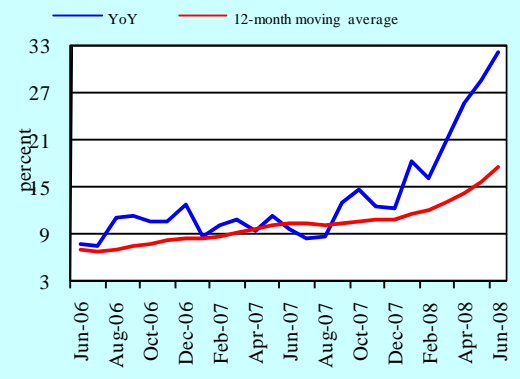
A detailed look at price movements of individual items in the CPI food group depicted that out of 110 items reported in the basket, 85 items including

rice, pulse masoor, wheat, mustard oil, vegetable ghee, cooking oil, etc exhibited price change between 10 percent to 140 percent, 16 showed a price change between 0 to 10 percent and remaining 9 either declined or remained unchanged during June 2008. A significant increase in the prices of two items i.e. rice irri-6 (140 percent) and pulse masoor (134 percent) was recorded during the month under review (see **Figure 2.4** and **Table A2** in Annexure A).

Composition of food items on monthly price change (MoM) basis showed that 8 items including cucumber, chilli powder, potatoes, tea, etc. exhibited double digit increase in their prices during June 2008. Whereas prices of 27 items including milk tetra pack, pulse moong, mash, gram, tomatoes, chicken, and chillies green etc. either declined or showed no change during June 2008.

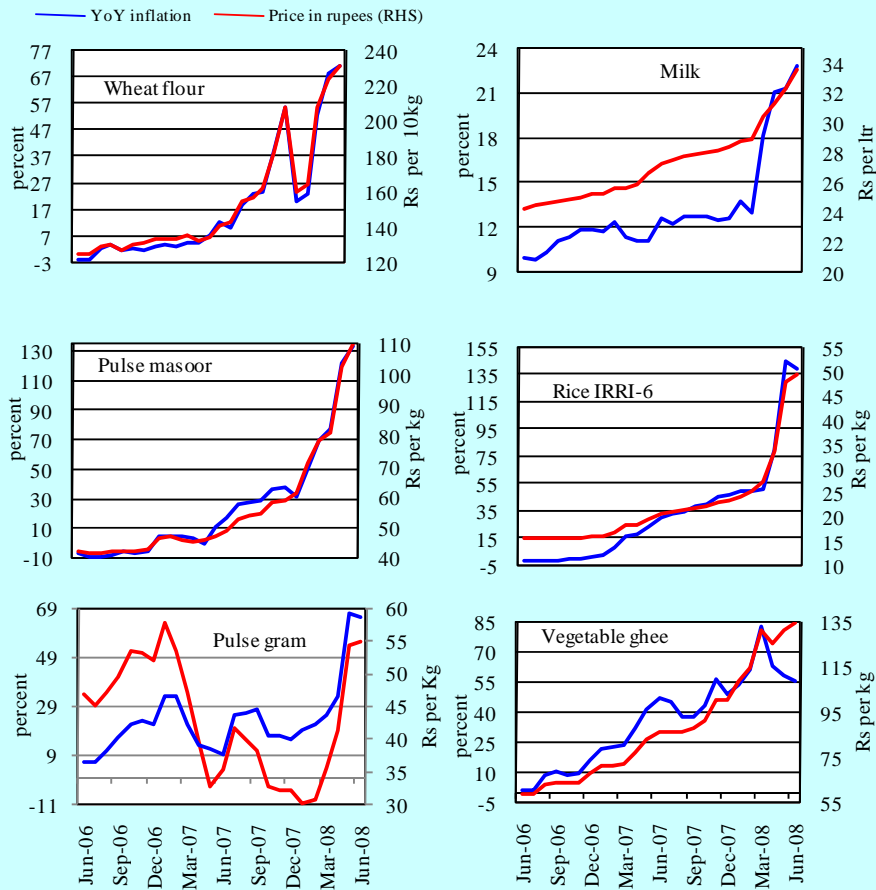
During June 2008, according to the weighted contribution, seven out of top ten items of CPI basket were from the food group including wheat flour, vegetable ghee, fresh milk, rice, fresh fruits, readymade food and cooking oil. Combined weighted contribution of these food items in the overall inflation remained 47.1 percent during June 2008 (see **Table A3** in the Annexure). Moreover, within food group, wheat flour, vegetable ghee, milk fresh and rice contributed about 64.6 percent to the YoY food inflation during June 2008.

**Figure 2.3: CPI Food Inflation**



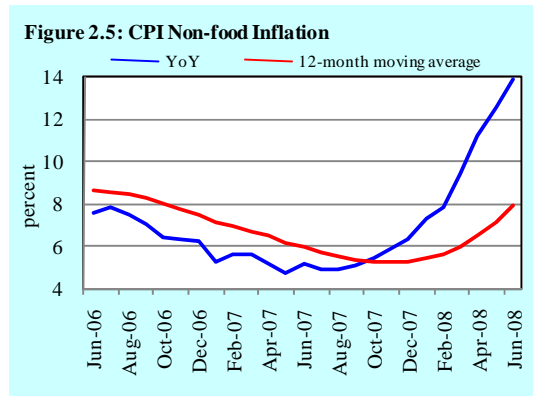
<sup>1</sup> See section on Global Commodity Prices

Figure 2.4: Price Trends in Key Food Items

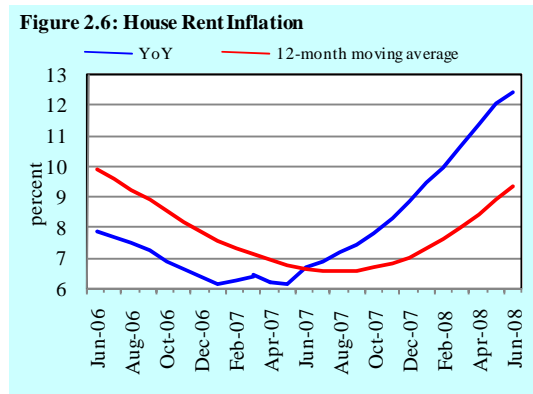


## 2.2 Non-food Inflation

The upsurge in non-food inflation (YoY) has continued for the last three months of FY08. CPI non-food inflation was recorded 13.8 percent during June 2008, (highest since June 2008, (highest since July 1992), compared to 5.1 percent in June 2007 (see **Figure 2.5**). *Transport & communication* sub-group has contributed highly in pushing non-food inflation (YoY) in double digits.



The inflation (YoY) in *house rent index* remained in double digits for the fourth consecutive month and reached 12.4 percent during June 2008, 5.7 percentage points higher than June 2007 (see **Figure 2.6**). This upsurge was mainly due to an increase in the prices of cement, cement blocks, iron bars & sheets, pipe fittings, glass sheets, paints & varnishes, timber and sanitary ware.



Due to recent price adjustments in fuel, road and air fares the *transport & communication* sub-group has registered double digit inflation (YoY) since April 2008 and was recorded at 24.9 percent in June 2008, compared to (-) 3.1 percent in the corresponding month last year.

*Apparel, textile & footwear* sub-group registered an uptrend and was recorded at 9.7 percent during June 2008, compared to 7.2 percent in corresponding month of last year. Items that were mainly responsible for this increase in inflation include cotton cloth, readymade garments, tailoring charges, etc.

Inflation (YoY) in *fuel & lighting* sub-group reached double digits for the first time since January 2007 and was recorded at 11.4 percent during June 2008

compared to 6.1 percent in the corresponding month last year. The reason for an upsurge in the sub-group's inflation was high prices of kerosene oil, firewood whole, gas charges, electricity charges, CNG charges etc.

Inflation (YoY) in *household furniture & equipment* sub-group during June 2008 was recorded at 10.4 percent compared to 5.8 percent in the corresponding month last year. Similar to previous month, this increase was due to a rise in the prices of almost all items in this sub-group.

Similar to previous month inflation (YoY) of *recreation & entertainment* sub-group witnessed an uptrend during June 2008 and recorded 9.9 percent inflation (YoY) during June 2008 compared to 0.1 percent during the same month last year. This significant increase mainly reflects a rise in the prices of daily newspapers and magazines.

*Cleaning, laundry & personal appearance* sub-group inflation increased significantly and recorded 17.7 percent inflation (YoY) during June 2008 compared to 4.7 percent for the corresponding month last year. The reason for this double digit inflation (YoY) was rising prices of jewellery, washing soap, detergents, laundry charges, etc.

Inflation (YoY) in the *education* sub-group showed strength during June 2008 and was recorded at 9.2 percent in June 2008 compare to 6.4 percent in the same month last year. This acceleration was due to the rise in prices of books, papers, school fee, etc.

*Medicare* sub-group also recorded double digit inflation reaching 14.2 percent (YoY) during June 2008 compared to 9.9 percent in the corresponding month last year. This upsurge in inflation was due to an increase in the prices of items such as cotton bandage, ORS, glaxose-D, disprin tablet, doctor fee, gripes water and polyfax eye ointment etc. (see **Figure A1** in Annexure).

Of the 250 non-food commodities included in the CPI basket, 115 showed double digit price change during June 2008. The commodities showing double digit price change include kerosene oil, high speed diesel, petrol super, gold and silver tezabi, air fare, and firewood whole, etc. Further 62 commodities showed moderate price change in the range of 5 to 10 percent; all other commodities witnessed either price increase of less than 5 percent or decline ( see **Table A2** in the Annexure). Similar to May 2008, items that showed either negative or no price change included Urdu and English text books, telephone charges, a number of durable goods like computer CD rom, etc (see **Table A4** in the Annexure).

### 2.3 City-wise Inflation

Inflationary pressures were strong in all major cities during June 2008. Inflation (YoY) in major cities included Islamabad, Lahore, Karachi, Quetta and Peshawar was recorded at 17.7, 18.0, 21.1, 25.3 and 22.3 percent during June 2008 compared to 7.8, 6.9, 7.4, 7.6 and 7.7 percent in the corresponding month last year. Similar to previous month, inflation (YoY) in Islamabad, Lahore and Karachi remained lower than the overall CPI inflation (see **Table 2.1**).

Table 2.1: City wise Inflation of Selected Cities						percent
	Over all CPI	Islamabad	Lahore	Karachi	Quetta	Peshawar
Jun-07	7.0	7.8	6.9	7.4	7.6	7.7
Jul-07	6.4	7.3	6.1	6.9	6.4	5.9
Aug-07	6.5	7.8	6.5	7.7	7.1	5.7
Sep-07	8.4	7.6	7.9	8.1	7.8	8.6
Oct-07	9.3	8.6	7.8	10.0	10.1	9.5
Nov-07	8.7	8.0	7.0	8.7	9.8	9.8
Dec-07	8.8	7.7	7.5	8.1	9.0	9.2
Jan-08	11.9	9.1	10.1	10.7	12.3	12.2
Feb-08	11.3	9.8	10.4	9.8	11.1	11.4
Mar-08	14.1	11.6	12.0	13.3	13.8	15.8
Apr-08	17.2	13.8	15.4	16.0	17.5	18.9
May-08	19.3	16.4	17.4	18.6	21.8	21.8
Jun-08	21.5	17.7	18.0	21.1	25.3	22.3

City-wise inflation (YoY) based on all 35 cities indicates that 27 cities were found in the category of high inflation cities. While the remaining 8 cities recorded inflation below overall CPI inflation. Loralai maintained its position as the highest inflation city with CPI (YoY) at 28.6 percent, followed by Bannu (27.4 percent) and Nawabshah (27.3 percent) during June 2008. On the other hand, the lowest CPI (YoY) inflation was recorded in Multan (16.6 percent) during the month under review. Comparison of CPI food and non-food inflation (YoY) among 35 cities revealed that, the highest food inflation (YoY) was also recorded in Loralai (45.0 percent) and the lowest in Islamabad (22.7 percent), whereas the highest non-food inflation was observed in Bannu (20.6 percent) and the lowest in Multan (8.8 percent) during June 2008 (see **Table 2.2**).

	<b>High inflation cities</b>				<b>Low inflation cities</b>		
	<b>General</b>	<b>Food</b>	<b>Non-food</b>		<b>General</b>	<b>Food</b>	<b>Non-food</b>
Loralai	28.6	45.0	17.9	Karachi	21.1	31.7	13.6
Bannu	27.4	36.7	20.6	Faisalabad	20.6	31.8	12.2
Nawabshah	27.3	41.8	17.6	Bahawalpur	19.8	30.5	11.7
Mardan	25.6	37.8	17.0	Attock	19.4	25.1	15.3
Turbat	25.5	33.4	20.1	Rawalpindi	18.3	23.5	14.5
Khuzdar	25.4	33.3	19.5	Lahore	18.0	29.2	9.5
Quetta	25.3	38.2	15.5	Islamabad	17.7	22.7	14.2
Sukkur	25.3	39.8	15.4	Multan	16.6	27.3	8.8
Larkana	24.8	35.3	16.9				
Samundari	24.6	34.2	17.8				
Mianwali	24.4	33.0	18.2				
D.I.Khan	24.4	35.8	16.0				
Shahdadpur	23.9	40.2	13.1				
Jhang	23.7	32.5	17.6				
Hyderabad	23.7	35.2	15.3				
Sargodha	23.2	31.0	17.3				
Sialkot	23.1	32.4	15.8				
Mirpur Khas	22.7	30.6	17.0				
Okara	22.6	33.6	14.6				
Jhelum	22.4	36.1	13.1				
Peshawar	22.3	32.2	15.1				
Bahawalnagar	22.3	30.8	16.2				
Vehari	22.1	30.3	15.9				
Abbotabad	21.9	32.0	14.4				
Gujranwala	21.8	31.0	15.0				
Kunri	21.5	30.0	15.2				
D.G. Khan	21.5	28.0	16.5				

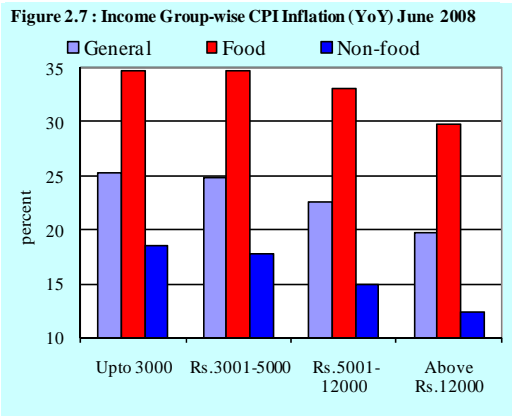
Note: High inflation refers to above average inflation, and low inflation refers to below average inflation

## 2.4 Income Group-wise Inflation

Income group-wise inflation continued to show strength during June 2008. Inflation (YoY) in all income groups was recorded higher than overall CPI inflation (YoY), except the highest income group during the month under review (see **Figure 2.7**).

The highest CPI inflation (YoY) of 25.3 percent was recorded for the lowest income group earning upto Rs. 3000 during June

2008, followed by income group of Rs. 3001 to 5000 (24.8 percent) and income group of Rs. 5001 to 12000 (22.6 percent). The highest income group of above Rs. 12000 experienced the lowest inflation and was recorded at 19.8 percent.



Data on selected 17 cities indicates that the lowest overall CPI inflation (YoY) was recorded in Multan for all income groups during June 2008. Whereas the highest CPI inflation (YoY) was recorded in Khuzdar for all income groups during the month under review (see **Table A5** in annexure A).

## 2.5 Services and Non-services Inflation

Segregation of CPI basket into services<sup>2</sup> and non-services sectors showed that inflation accelerated in both during June 2008. Inflation (YoY) in services sector was recorded at 12.6 percent during June 2008 compared to 5.9 percent in the corresponding month last year. Inflation in the non-services sector was recorded at 28.3 percent during the month under review as compared to 7.9 percent in June 2007 (see **Figure 2.8**).

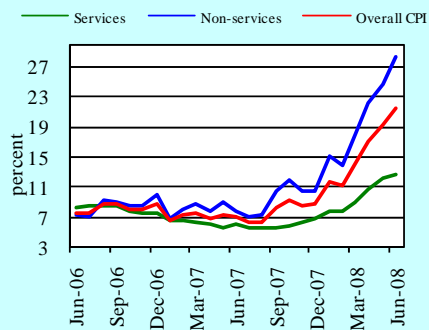
Within the non-services sector, an analysis of durable<sup>3</sup> and non-durable items shows an increase in inflation (YoY) for both of these sub-groups during June 2008 compared to the same month last year. Inflation (YoY) in durable goods was recorded at 23.3 percent during June 2008 compared to 5.6 percent in June 2007. This significant increase was mainly due to a rise in the prices of jewelry, furniture

<sup>2</sup> Services group of the CPI basket includes items like house rent index, electricity charges, marriage hall, household servant, transport fare, communication, recreation, tuition fees, laundry charges, hair cut & beauty parlor charges, doctor's fee, tailoring charges etc.

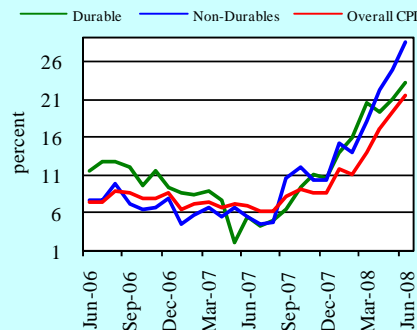
<sup>3</sup> Durable items include suitcase, furniture, electric iron, fans, washing machines, sewing machines, clocks, needles, refrigerators, air conditioners, vehicles, computer & allied products, watches and jewelry, etc.

and electric fans, etc. The non-durable goods inflation was recorded at 28.5 percent in June 2008 compared to 5.7 percent in the corresponding month last year. Higher prices of pulse masoor, rice, wheat flour, maida, mustard oil, spices, kerosene oil, cooking oil and vegetable ghee etc. were the main items contributing to acceleration in non-durable goods inflation during June 2008 (see **Figure 2.9**).

**Figure 2.8: Services & Non-services Inflation**



**Figure 2.9: Durables and Non-durables Inflation**

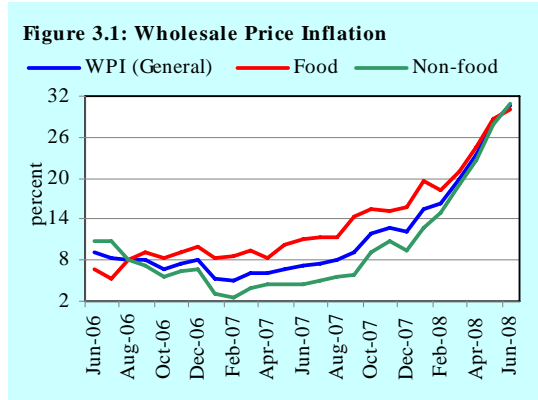




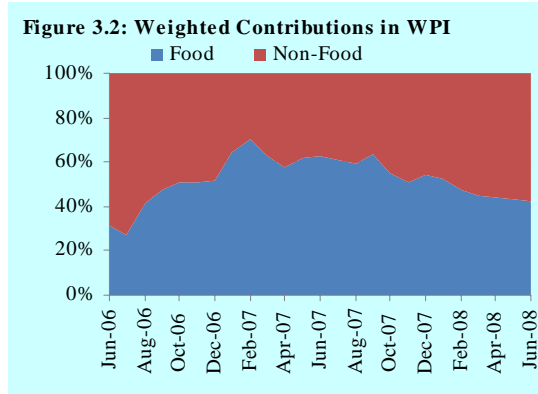
### 3. Wholesale Price Index

Wholesale price index (WPI) inflation (YoY) remained stubbornly high and reached 30.6 percent during June 2008 compared to 7.3 percent for the same month last year. Both food and non-food groups of WPI contributed to this steep rise in inflation. WPI non-food inflation was registered at 31.0 percent in June 2008, compared to 4.6 percent during the same month last year.

Similarly, food group of WPI witnessed a significant YoY increase of 30.2 percent in the month under review compared to 11.2 percent in June 2007 (see **Figure 3.1**).



The persistently high WPI non-food inflation over the last few months has resulted in an increase in its weighted contribution in overall WPI inflation. The non-food group's contribution rose to 58.0 percent in June 2008, compared to 37.2 percent in June 2007. Consequently, the weighted contribution of food group in overall WPI inflation came down to 42.0 percent in June 2008 compared to 62.8 percent in the same month last year (see **Figure 3.2**).



A further disaggregated analysis of WPI basket reveals that 67 out of 106 items exhibited double digit YoY growth in their prices, ranging between 11 to 136.1 percent. The major items exhibiting double digit increase in their prices include pulse masoor, coke, fertilizers, furnace oil, rice, maida, mustard/rapeseed oil, vegetable ghee, cooking oil, wheat, chemicals, etc. Fifteen items exhibited growth between 5 to 10 percent in their wholesale prices whereas 10 items showed subdued increase. Prices of 14 other items either declined or showed no change in this period (see **Table 3.1**).

WPI food group inflation continued to remain strong and reached 30.2 percent (YoY) during June 2008 compared to 11.2 percent in June 2007. Major food items contributing to this steep rise include pulse masoor, bajra, rice, vegetable ghee, cooking oil, maida and wheat, etc. Like previous month, the highest inflation among food group was recorded in the wholesale price of pulse masoor that showed an increase of 136.1 percent during the month under review. On the other hand, few commodities showed YoY deflation of different magnitudes in their wholesale prices including tomatoes (-71.0 percent), gur (-15.2 percent), and pulse moong (-11.1 percent), etc. (see **Table A7 & Figure 3.3**).

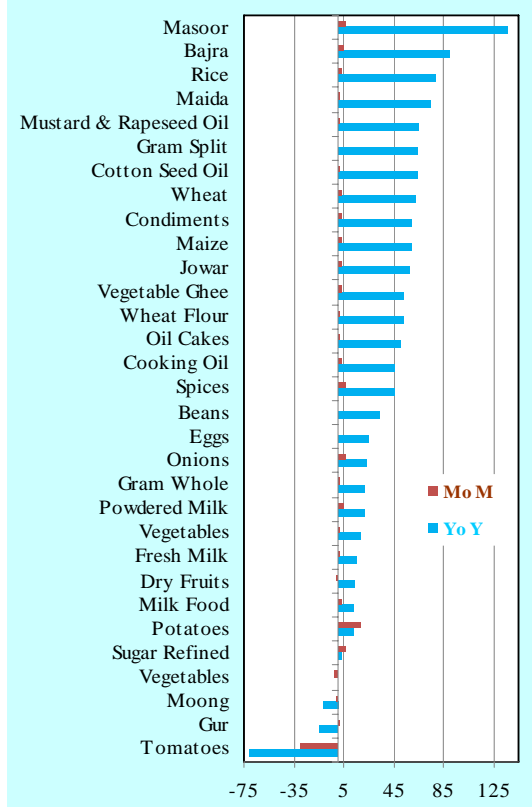
Within the WPI food group 32 of the total 43 items exhibited double digit YoY inflation during June 2008. One food item (meat) exhibited growth of 9 percent in its wholesale price, while four items recorded subdued inflation of up to 5 percent. Wholesale prices of the remaining six food items either declined or remained stable.

Similar to WPI food group, wholesale prices of WPI non-

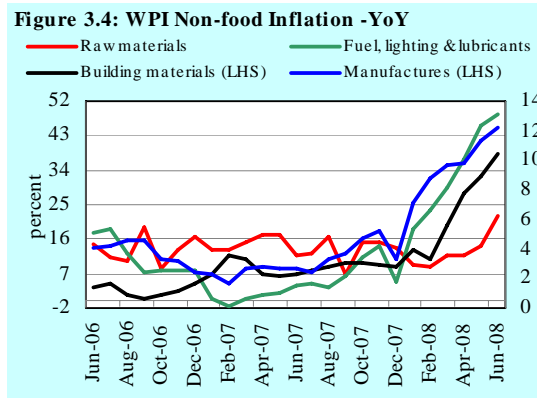
**Table 3.1: WPI Price Distribution of YoY Changes (June 2008)**

No. of Items					
Groups	Decrease or no change	Up to 5%	5%-10%	More than 10%	Total
<b>A. Food</b>	6	4	1	32	<b>43</b>
<b>B. Non-Food</b>	8	6	14	35	<b>63</b>
Raw material	1	1	2	5	9
Fuel, lighting & lubricant			2	9	11
Manufactures	6	5	7	14	32
Building material	1		3	7	11
<b>Total</b>	<b>14</b>	<b>10</b>	<b>15</b>	<b>67</b>	<b>106</b>

**Figure 3.3: Wholesale Price Inflation (%) in Selected Food Items (June 2008)**



food group continued to show an uptrend throughout FY08 and recorded unprecedented YoY inflation of 31.0 percent in June 2008. All sub-groups of the non-food group witnessed significantly higher YoY inflation in June 2008, compared to June 2007 (see **Figure 3.4**).



The major items that contributed to this significant rise in WPI non-food (YoY) inflation include coke, furnace oil, fertilizers, rapeseeds, chemicals, iron bars & sheets, etc. In particular, the wholesale price of coke continued to show strong growth and recorded YoY inflation of more than 90 percent for the eleventh consecutive month in June 2008, reflecting the impact of rising international energy prices. Prices of 8 non-food items, however, declined or showed no change in June 2008 including sugarcane, paper, tiles etc. (see **Figure 3.5**).

Within the non-food group of WPI, the *fuel, lighting & lubricant* sub-group continued to show a significant rise in its contribution to WPI non-food inflation and was recorded at 65.8 percent in June 2008

	Jun 07	Apr 08	May 08	Jun 08
Raw materials	31.4	6.9	6.9	9.5
Fuel, lighting & lubricants	34.9	66.8	68.3	65.8
Manufactures	21.4	15.6	14.7	14.3
Building materials	12.1	10.7	10.0	10.5

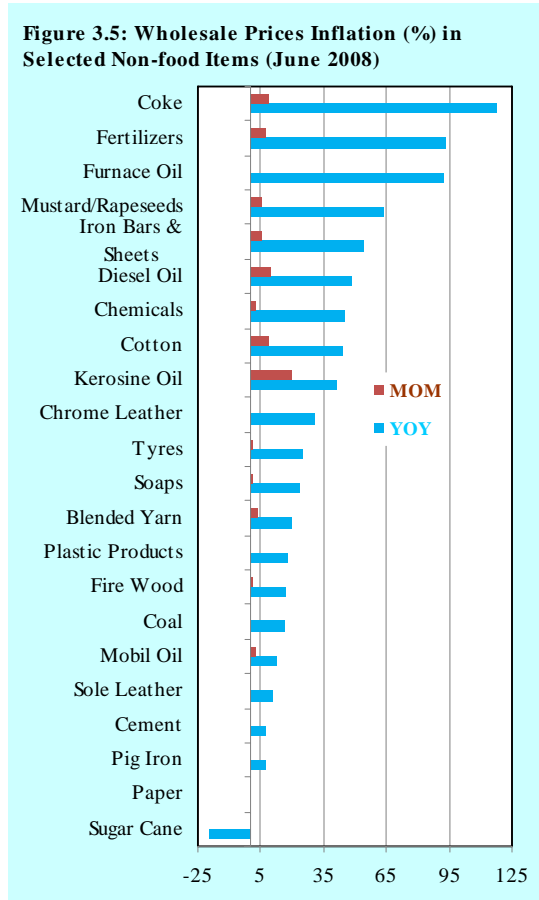
compared to 34.9 percent in the same month last year. This increase in the weighted contribution of *fuel, lighting & lubricant* sub-group can be attributed to continuously high international crude oil prices (see **Table 3.2**).

A detailed analysis of YoY inflation of various sub-indices of non-food group show that the *fuel, lightning & lubricants* sub-group continued to show strong upward movement recording YoY inflation of 48.6 percent during June 2008 compared to only 3.8 percent inflation in June 2007. This steep rise is largely on account of high crude oil prices in the international markets that directly affect the wholesale prices of coke, furnace oil and mobil oil in the domestic market. The impact of this was further aggravated by a rise in the administered domestic prices of key fuels. Within this sub-group, prices of more than 80 percent of the items recorded double digit YoY increase with prices of items like coke and furnace oil

recording more than 90 percent inflation during the month under review (see **Table A7** in Annexure A).

The *raw material* sub-group recorded increase in inflation during June 2008, and reached 22.1 percent (YoY), highest since February 1994. In this sub-group, the wholesale prices of sugarcane declined while the wholesale prices of mustard/rapeseed, cotton and cotton seed, etc. registered double digit YoY growth during the month under review.

The *manufactures* sub-index of WPI non-food group also witnessed growth and recorded double digit (12.2 percent) YoY inflation for the second consecutive month. This was mainly because of double-digit YoY rise in the wholesale prices of items such as fertilizers, chemicals, chrome leather, soaps, tyres, and plastic products, etc. Within the *manufactures* sub-group, wholesale prices of fertilizers continued to register high YoY growth reaching 93.8 percent in June 2008 reflecting rising DAP<sup>4</sup> prices in the international market. The *building material* sub-index accelerated and witnessed a higher YoY inflation of 38.2 percent in June 2008 compared to only 6.7 percent during the same month last year. This upsurge was mainly due to the double digit YoY inflation recorded by items such as iron bars & sheets, wires & cables and pipe fitting during the month under review (see **Table A7** in Annexure A).

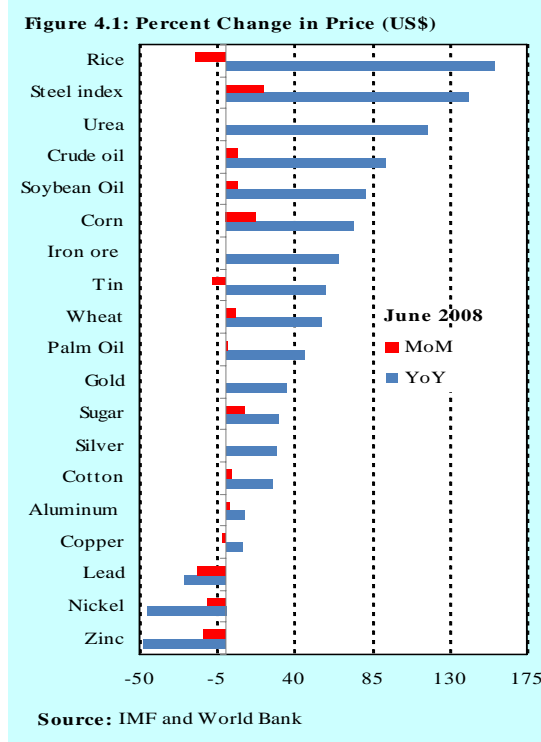


<sup>4</sup> DAP: Diammonium Phosphate

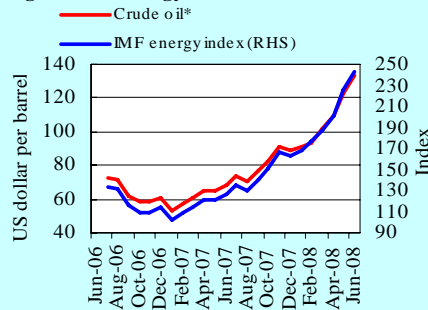
#### 4. Global Commodity Prices

Prices of food, energy and precious metals remained strong in the international markets during June 2008. In particular prices of rice, urea, steel, crude oil and soybean oil witnessed high YoY growth of above 80 percent. On the other hand, in metal group, prices of nickel, lead and zinc declined during the month under review (see **Figure 4.1**).

Crude oil prices<sup>5</sup> reached US\$133 per barrel driven by concerns over supply and a weaker US dollar. The strength in crude oil prices was also reflected in IMF energy index that moved up further in June 2008. On daily basis average crude oil price fluctuated between US\$ 122 and US\$ 139.5 per barrel during June 2008 (see **Figure 4.2**).

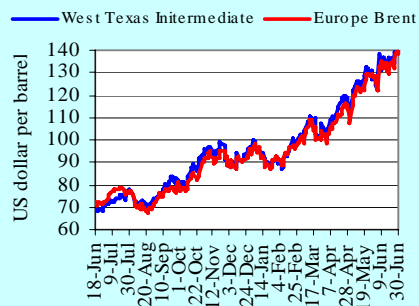


**Figure 4.2: Energy Indices/Prices**



\* Simple average of brent, WTI and Dubai Fateh  
Source: IMF & World Bank

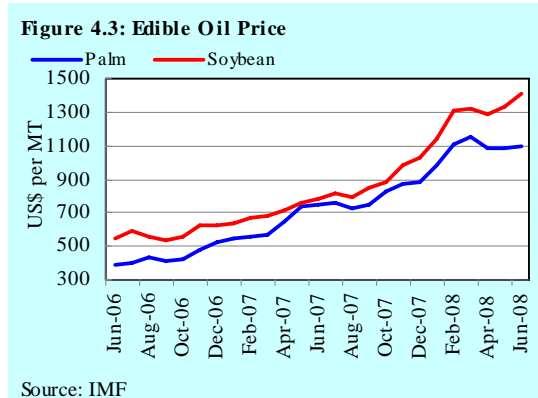
**Daily Oil Prices (Spot FOB)**



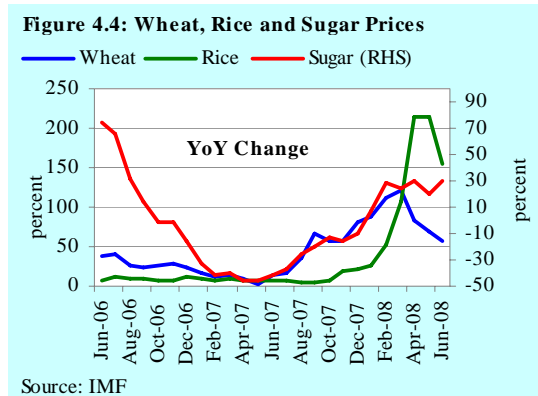
Source: www.eia.doe.gov

<sup>5</sup> Simple average of brent, WTI and Dubai Fateh

Within food group, edible oil prices remained strong during June 2008 with palm and soybean oil prices registering 46.4 and 80.6 percent YoY growth. The slowdown in palm oil price growth was mainly on account of concerns over rising stocks due to slowing overseas demand and higher production in Malaysia.<sup>6</sup> On the other hand, rise in soybean prices in international market was mainly due to Midwestern US floods which are expected to lower the current US soybean crop<sup>7</sup> (see **Figure 4.3**).



In food grains, highest inflation on YoY basis was observed in rice prices in June 2008. However, the 156 percent YoY growth of rice was still considerably lower than the 215 percent inflation recorded in the preceding month. On MoM basis rice prices recorded negative growth for the second consecutive month. This relative slowdown was due to prospects of a better crop for most of the major rice producers, except Myanmar that suffered substantial hurricane damages.<sup>8</sup> On the other hand, wheat prices remained strong and recorded 56.5 percent rise on YoY basis due to speculation that demand for U.S. grain may increase after dry weather forecasted in parts of Australia and as near-record high corn prices prompted importers to seek cheaper alternatives<sup>9</sup> (see **Figure 4.4**).

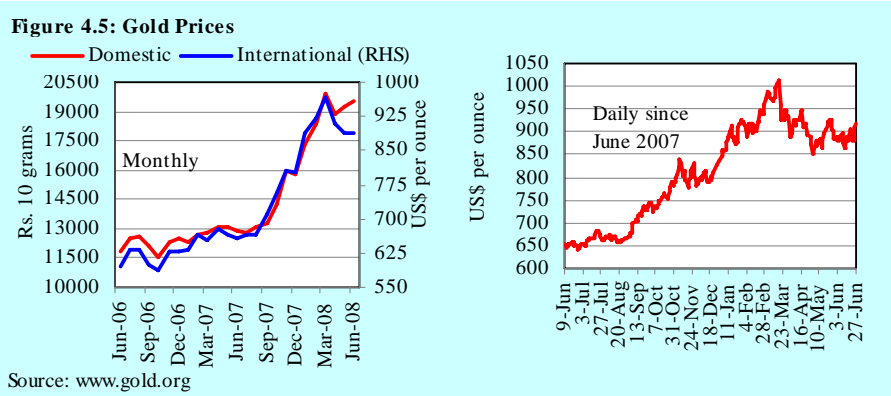


<sup>6</sup> www.bloomberg.com

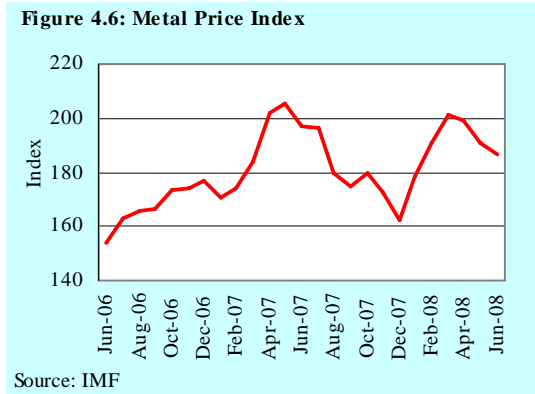
<sup>7</sup> WB Commodity Markets Review (July 10, 2008)

<sup>8</sup> WB Commodity Markets Review (July 10, 2008)

<sup>9</sup> www.bloomberg.com



Growth in gold prices remained strong during June 2008 and was recorded at 35.4 percent (YoY) compared to 10 percent growth during the same month last year. This boost in the gold prices was supported by rising oil prices and declining dollar, increasing the precious metal's appeal as hedge against inflation and alternative investment.<sup>10</sup> Daily gold prices fluctuated in the range of US\$ 862.3 and US\$ 919.5 per ounce during June 2008 (see **Figure 4.5**).



Metal prices declined by 5.6 percent on YoY basis as indicated by IMF metal price index (see **Figure 4.6**). This reversal in metal prices was mainly the result of 47.5, 45.9 and 23.6 percent reduction in the prices of zinc, lead and nickel in the international markets. Nickel prices dropped on continuous weak demand from the stainless steel sector and large supply growth expected over the next year. Zinc prices dropped due to rising stocks and expectations of strong supply growth. Similarly lead prices dropped due to higher stocks, relatively weak demand and expectations of strong growth in supply.<sup>11</sup>

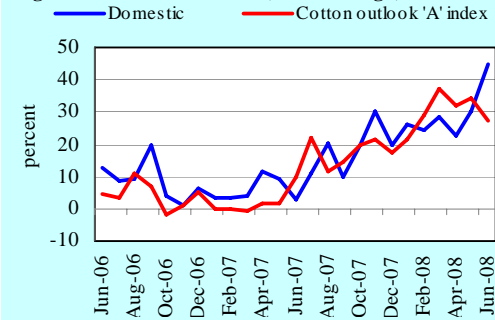
Cotton prices continued the rising trend and witnessed a YoY increase in the international market during June 2008. Cotton prices reflected by the cotton

<sup>10</sup> www.bloomberg.com

<sup>11</sup> WB Commodity Markets Review (July 10, 2008)

outlook 'A' index depicted a YoY growth of 27.1 percent. Rise in cotton prices in global market is due to higher overseas demand for supplies from the U.S., the world's largest exporter, and on speculation that rallies in more-profitable grain crops may encourage farmers to plant less cotton.<sup>12</sup> In the domestic market cotton prices registered an increase of 44.6 percent during the month under review (see **Figure 4.7**).

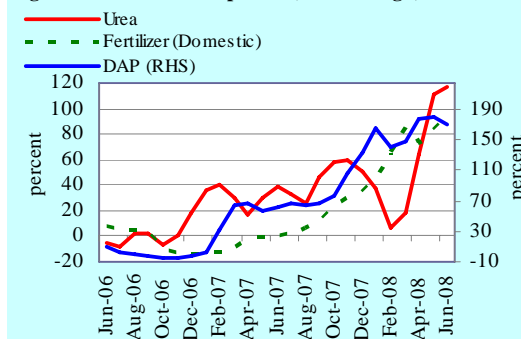
**Figure 4.7: Cotton Prices (YoY Change)**



Source: World Bank, www.apmta.org.pk

Rising trends in the fertilizer prices continued in international, as well as, in the domestic markets. In particular, the prices of DAP have been recording triple digit growth since November 2008. DAP and urea prices surged by 170.4 and 117.4 percent on YoY basis in the international market during June 2008. Surge in fertilizer prices is the result of strong demand induced by high grain prices; and, high energy prices that have increased fertilizer production cost (see **Figure 4.8**).

**Figure 4.8 : Fertilizer prices (YoY change)**



Source: World Bank and FBS

<sup>12</sup> www.bloomberg.com



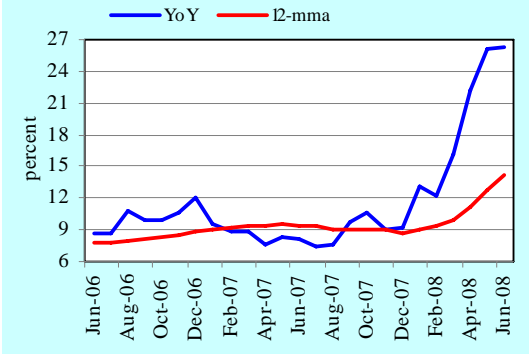
**5. Sensitive Price Indicator**

Inflation (YoY) measured by sensitive price indicator (SPI) remained strong reaching 26.3 percent during June 2008 compared to 8.0 percent in the same month last year. Long-run trend in SPI indicated by 12-month moving average (12mma) also accelerated and recorded double digit inflation for the fourth consecutive month (see **Figure 5.1**). The rising 12mma inflation indicates that SPI inflation remained persistently high during the last two quarters of FY08.

A detailed analysis of SPI basket shows that out of 53 items, prices of 7 either declined or showed no change, 3 registered price change between 0 to 5 percent, 6 recorded price change between 5 to 10 percent and the prices of remaining 37 items grew by more than 10 percent during June 2008 (see **Table 5.1**). Items mainly contributing to the significant increase in SPI inflation (YoY) during June 2008 were pulse masoor (134.9 percent), rice irri-6 (124.0 percent), rice basmati (77.8 percent), and wheat (70.0 percent).

SPI inflation measured by month over month (MoM), however, eased somewhat during June 2008 and recorded at 1.4 percent compared to 4.5 percent in May 2008. This can be attributed to the fall in the prices of tomatoes (-23.7 percent), garlic (-6.9 percent), red chillies (-6.5 percent), etc. (see **Table A8** in Annexure A). Similar to monthly SPI

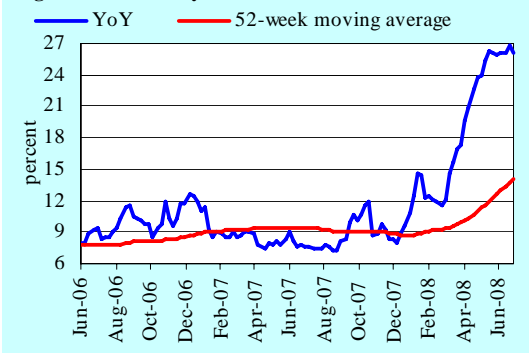
**Figure 5.1: SPI Inflation (YoY)**



**Table 5.1: Distribution of Price Changes of SPI Basket (YoY)**

Percent Change	Number of items			
	Jun-07	Apr-08	May-08	Jun-08
0 or less	13	8	7	7
0 to 5	8	5	3	3
5 to 10	12	7	8	6
10 or above	20	33	35	37
Minimum	-29.2	-39.6	-46.9	-59.4
Maximum	67.1	84.3	140.9	134.9

**Figure 5.2: Weekly SPI Inflation**



inflation (YoY), weekly SPI inflation also remained strong during June 2008. The weekly SPI inflation remained in a narrow range of 26.0 percent to 26.8 percent indicating that probably SPI inflation may begin to ease in months ahead (see **Figure 5.2**).

The income group-wise SPI data for the month indicates significant acceleration in SPI inflation (YoY) for all income groups compared to June 2007. As in the previous month, the incidence of SPI inflation (YoY) was the highest for the lowest income group. The income group-wise SPI inflation further reveals that all income groups, except the highest income group, observed higher SPI inflation than the average SPI inflation during June 2008 (see **Table 5.2**).

	percent			
	<b>Jun-07</b>	<b>Apr-08</b>	<b>May-08</b>	<b>Jun-08</b>
Up to Rs. 3000	9.7	24.9	29.9	30.0
Rs. 3001-5000	9.6	24.5	29.1	29.2
Rs. 5000-12000	8.9	22.8	26.8	27.0
Above Rs. 12000	6.2	19.9	23.2	23.5
<b>All income groups</b>	8.0	22.3	26.2	26.3

## Annexure A

Table A1: CPI Inflation (YoY) by Groups

	Weights	Jun-04	Jun-05	Jun-06	Jun-07	Jun-08
<b>I. Food Group</b>	<b>40.3</b>	<b>13.4</b>	<b>9.3</b>	<b>7.8</b>	<b>9.7</b>	<b>32.0</b>
<b>II. Non-Food Group</b>	<b>59.7</b>	<b>5.3</b>	<b>8.4</b>	<b>7.5</b>	<b>5.1</b>	<b>13.8</b>
Apparel, textile, etc.	6.1	1.0	5.1	3.6	7.2	9.7
House rent	23.4	8.2	12.0	7.9	6.7	12.4
Fuel & lighting	7.3	1.8	4.6	11.7	6.1	11.4
Household furniture & equipment	3.3	5.4	5.3	6.0	5.8	10.4
Transport & com.	7.3	7.4	13.6	10.4	-3.1	24.9
Recreation & entertainment	0.8	-1.0	-0.1	-0.1	0.1	9.9
Education	3.5	2.4	4.5	6.6	6.4	9.2
Cleaning, laundry, etc.	5.9	4.3	2.8	3.7	4.7	17.7
Medicare	2.1	1.8	0.8	4.4	9.9	14.2
<b>Headline</b>	<b>100</b>	<b>8.5</b>	<b>8.7</b>	<b>7.6</b>	<b>7.0</b>	<b>21.5</b>

Table A2: Distribution of Price Changes of CPI Basket, June 2008 (YoY)

Groups	% Changes	Total Number of Items	No. of Items in each Inflation Range			
			Decrease or no change (0 % or less)	Subdued increase (0 to 5%)	Moderate increase (5 to 10%)	Double digit increase (over 10%)
<b>I. Food Group</b>	<b>32.0</b>	<b>110</b>	<b>9</b>	<b>8</b>	<b>7</b>	<b>86</b>
<b>II. Non-Food Group</b>	<b>13.8</b>	<b>250</b>	<b>43</b>	<b>30</b>	<b>62</b>	<b>115</b>
Apparel, textile, etc.	9.7	42	4	6	20	12
House rent	12.4	1				1
Fuel & lighting	11.4	15	1		8	6
Household furniture & equipment	10.4	44		2	11	31
Transport & com.	24.9	43	9	1	1	32
Recreation & entertainment	9.9	16	4	4	2	6
Education	9.2	24	7	5	6	6
Cleaning, laundry, etc.	17.7	36	2	5	13	16
Medicines	14.2	29	16	7	1	5
<b>Overall</b>	<b>21.5</b>	<b>360</b>				

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

<b>Table A3: Top Ten Contribution to YoY CPI Inflation in June 2008</b>					
<b>Items</b>	<b>weights</b>	<b>YoY change</b>		<b>Weighted Contribution</b>	
		<b>June-07</b>	<b>June-08</b>		
<b>A. Ranked by Weighted Contribution</b>					
1	Wheat Flour	5.11	6.76	74.94	17.12
2	House Rent Index	23.43	6.73	12.39	13.52
3	Vegetable Ghee	2.67	38.24	54.24	8.35
4	Milk Fresh	6.66	12.72	22.65	7.86
5	Rice	1.34	48.54	93.40	7.39
6	Petrol	1.73	-6.91	41.03	3.97
7	Transport Fare/Charges	2.12	1.91	22.63	2.64
8	Fresh Fruits	1.62	24.21	26.96	2.41
9	Readymade Food	1.68	6.73	25.19	2.12
10	Cooking Oil	0.69	27.54	53.24	1.90
<b>Total</b>		<b>47.04</b>			<b>67.28</b>
<b>B. Ranked by Percentage Change</b>					
1	Pulse Masoor	0.22	10.98	134.19	1.23
2	Match Box	0.13	0.00	100.00	0.42
3	Rice	1.34	48.54	93.40	7.39
4	Maida	0.11	2.20	76.30	0.34
5	Wheat Flour	5.11	6.76	74.94	17.12
6	Wheat	0.48	5.76	72.84	1.54
7	Mustard Oil	0.05	28.65	71.34	0.16
8	Spices	0.60	19.06	58.40	1.40
9	Kerosene	0.14	0.00	58.13	0.60
10	Air Fare	0.10	10.26	56.79	0.39
		<b>8.27</b>			<b>30.59</b>
<b>C. Ranked by Weights</b>					
1	House Rent Index	23.43	6.73	12.39	13.52
2	Milk Fresh	6.66	12.72	22.65	7.86
3	Wheat Flour	5.11	6.76	74.94	17.12
4	Electricity	4.37	10.07	6.44	1.07
5	Bakery & Confectionary	2.98	1.82	14.26	1.60
6	Meat	2.70	6.29	9.78	1.84
7	Vegetable Ghee	2.67	38.24	54.24	8.35
8	Tution Fees	2.36	7.96	8.51	0.92
9	Transport Fare/Charges	2.12	1.91	22.63	2.64
10	Natural Gas	2.05	1.30	8.64	1.16
		<b>54.45</b>			<b>56.08</b>
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 21.5 percent in June 2008.					

Table A4: Distribution of Price Changes - Selected CPI Items, June 2008

Groups	Decrease or no change	Subdued increase (upto 5%)	Moderate increase (5 to 10%)	Increase of over 10%
<b>Food Group</b>	Chowkelate Candy (Small Size) Garlic, Bottlegourd Aloo Bukhara Gur Av.Qlty Coffee-Nescafe 75 Gm., Arvi	Sugar Refined Toffee (Hilal) Fish-Rahu Medium Size, Cigarettes K-2 10'S, Pulse Mash (Washed), Karaila Cigarettes Morven Gold 20'S, Milo 200 Gm.	Mutton Av.Qlty. Cigarettes Gold Leaf 20'S Cigarettes Capstan 10'S Biscuits-Packed Jam Ahmed/Mitchelles Rooh Afza Betel Nuts	Milk Fresh (Unboiled) Wheat Flour Bag Wheat, Vegetable Ghee (Loose), Wheat Flour Fine/Superior. Pulse Masoor, Washed) Chicken Farm Broiler (Live) Cooking Oil (Dalda) Rice Irri-6 (Sindh/Punjab)
<b>Apparel &amp; Textile</b>	Ladies Sandal Bata Child Shoe Power Lite Bata, Gents Shoes Paul Bata	School Uni, Kameez,Shal.Girl School Uni. Kameez,Shal.Boys Boot Polish Cherry/Kiwi 50MI	Lawn Av.Qlty. Tailoring Coat-Pant Suit, School Uni. Pant,Shirt Boys	Long Cloth Av.Qlty. Shirting Av.Qlty. Tailoring Shirt
<b>House Rent Index</b>	-	-	-	House Rent Index
<b>Fuel &amp; Lighting</b>	Elect.Charges Upto 50 Units	-	Elect.Charges Above 1000 Uni Elect.Charges 301 - 1000 Uni Gas Chrg 6.7438 - 10.1157Mmb	Elect.Charges 101 - 300 Unit Firewood Whole Gas Cylinder Stand. Size
<b>H/hold Furniture</b>	-	Carpet Plain Av. Qlty Electric Juicer For Apple	Household Servant Female P/T Tea Set Pak. Chinaware 21 Pc Blanket (90" X 54")	Quilt (Lihaf) 3 Kg. Cotton Bedsheet Single Bed Sup.Qlty, Celing Fan 48" Super Qlty
<b>Transport &amp; Comm.</b>	Telephone Charges Local Call Tel Charges Out Side City, Car Tax For 800CC To 1300CC Plateform Ticket	Motorcycle Yamaha 100CC	Tyre Car With Tube General	Petrol Super Bus Fare Outside City A/C Bus Fare Outside City Car Service Charges
<b>Recreation &amp; Entertainment</b>	T.V. 20" Colored With R/Cont V.C.P.,Panasonic/Lg/ Nat Monthly "Naunehal Digest"	Video Game Sega 16 Byte, Vid. Cassette Blk. Tdk/Sony Tape Recorder Cassette Blan	Cinema Non-A/C High Class Cinema A/C. Highest Class	Dry Cell 1.5 Volt(Local) Daily "Dawn" Weekly "Akhbar-E-Jahan"
<b>Education</b>	Govt. College Fee Ist. Year, Govt. College Fee 4Th. Year English Book Class V1	Eng. Book Ist.Yr Complete Se, Urdu Book ,Ist.Year/Inter English Book Class Ix Or X	Maths Book Class Ix Or X, Maths Book Ist. Year (T.B.B) Govt. University Fee Msc.	School Fee Eng.Med., School Fee Primary, Eng.Med. Paper Foolscape (27"X17")
<b>Cleaning &amp; Laundry</b>	Toothpaste Macklines 70 Grm Lipstick S.Miss/Medora Perfume Med.Size Medora/Broa	Perfume Med.Size Medora/Broa Talc Powder Vice Roay,B.Cat, Hair- Colour Begin (6 Gms) Brylcreem 210 Ml.	Haircut Charges For Men, Shampoo Plain Medora 200 Ml. Facecream Ponds (Medium) Cleanser Powder Vim 1000 Gm	Washing Soap Nyl(135-160Gms) Gold Tezabi 24 Ct Washing Powder 1000 Grm Silver Tezabi 24 Ct
<b>Medicare</b>	Dettol (Medium) Jouhar Joshanda Cac. 1000 Tab	Cotton Bandage 2" - 4",Daonil Tab. 5 Mg. Panadol Tab. Extra/Plain	O.R.S. (Nimcol)	Doctor (MBBS) Clinic Fee, Gripe-Water Woodwards Galxos-D (450 Grms)

<b>Table A5: City-wise Inflation (YoY) by Income Groups, June 2008</b>							
		<b>Upto Rs:3000</b>			<b>Rs 3001-5000</b>		
		<b>General</b>	<b>Food</b>	<b>Non-Food</b>	<b>General</b>	<b>Food</b>	<b>Non-Food</b>
1	Lahore	21.0	30.1	14.8	20.7	30.4	14.0
2	Faisalabad	22.0	30.8	16.1	23.2	31.3	17.6
3	Rawalpindi	18.7	24.5	14.8	19.3	26.9	14.2
4	Multan	18.2	25.3	13.4	18.3	25.7	13.4
5	Gujranwala	23.7	31.6	18.4	24.5	33.3	18.7
6	Islamabad	18.3	25.4	13.5	18.4	25.9	13.3
7	Sargodha	25.0	33.2	19.4	24.5	33.0	18.8
8	Sialkot	25.4	37.1	17.6	24.5	36.3	16.6
9	Bahawalpur	22.1	31.1	16.1	22.5	32.2	15.9
10	Karachi	24.5	33.0	18.7	23.9	33.1	17.7
11	Hyderabad	25.3	34.6	19.0	24.6	34.2	18.1
12	Sukkur	24.7	36.3	16.9	27.2	40.2	18.3
13	Larkana	25.5	34.5	19.5	25.5	33.8	19.9
14	Peshawar	23.6	31.6	18.2	26.3	35.9	19.9
15	Bannu	29.5	40.4	22.2	29.0	41.4	20.6
16	Quetta	25.2	35.2	18.4	27.6	43.5	16.9
17	Khuzdar	33.3	46.4	24.5	30.8	43.7	22.1
		<b>Rs 5001-12000</b>			<b>above Rs 12000</b>		
		<b>General</b>	<b>Food</b>	<b>Non-Food</b>	<b>General</b>	<b>Food</b>	<b>Non-Food</b>
1	Lahore	18.9	29.9	11.5	16.7	26.7	10.0
2	Faisalabad	21.9	31.2	15.6	19.3	28.6	12.9
3	Rawalpindi	18.4	26.4	12.9	18.1	24.9	13.5
4	Multan	17.1	24.8	11.9	14.9	21.2	10.7
5	Gujranwala	22.2	31.0	16.2	18.8	26.0	13.9
6	Islamabad	18.2	27.3	12.0	17.7	24.3	13.2
7	Sargodha	23.4	31.6	17.8	22.0	30.2	16.4
8	Sialkot	23.8	36.2	15.5	22.5	34.6	14.3
9	Bahawalpur	20.0	30.3	13.0	17.4	27.0	11.0
10	Karachi	22.5	31.4	16.5	19.5	29.1	13.0
11	Hyderabad	24.1	34.9	16.7	22.2	32.1	15.5
12	Sukkur	25.4	38.4	16.6	23.6	35.6	15.5
13	Larkana	24.4	33.6	18.2	25.1	36.1	17.6
14	Peshawar	23.3	34.1	16.0	20.6	28.6	15.2
15	Bannu	27.3	40.8	18.1	26.6	39.5	17.8
16	Quetta	25.9	42.6	14.5	24.3	38.4	14.8
17	Khuzdar	26.6	41.3	16.6	23.7	36.1	15.4

<b>Table A6 : Income Group-wise Inflation (YoY)</b>								percent
	<b>Nov-07</b>	<b>Dec-07</b>	<b>Jan-08</b>	<b>Feb-08</b>	<b>Mar-08</b>	<b>Apr-08</b>	<b>May-08</b>	<b>Jun-08</b>
<u>Up to Rs. 3000</u>								
General	10.1	10.4	14.7	13.4	17.0	20.2	23.2	25.3
Food	12.2	12.4	20.0	17.2	22.5	27.4	31.5	34.7
Non-food	8.6	9.0	10.9	10.7	13.0	15.1	17.1	18.6
<u>Rs. 3001-5000</u>								
General	10.2	10.4	14.5	13.0	16.6	19.9	22.6	24.8
Food	12.7	12.8	20.3	17.2	22.6	27.6	31.4	34.8
Non-food	8.3	8.7	10.5	10.0	12.4	14.5	16.3	17.8
<u>Rs. 5000-12000</u>								
General	9.4	9.5	13.0	12.0	14.9	18.1	20.4	22.6
Food	12.6	12.5	19.0	16.5	21.3	26.3	29.5	33.0
Non-food	7.0	7.4	8.6	8.7	10.2	12.2	13.7	14.9
<u>Above Rs. 12000</u>								
General	7.7	7.7	10.2	10.1	12.8	15.7	17.4	19.8
Food	12.3	11.8	16.6	15.0	18.8	23.6	26.1	29.8
Non-food	4.3	4.7	5.5	6.6	8.2	9.7	10.8	12.4
<u>All income groups</u>								
General	8.7	8.8	11.9	11.3	14.1	17.2	19.3	21.5
Food	12.5	12.2	18.2	16.0	20.6	25.5	28.5	32.0
Non-food	5.9	6.3	7.3	7.8	9.4	11.2	12.5	13.8

<b>Table A7: Distribution of Price Change (YoY)--WPI Items: June 2008</b>				
<b>Groups</b>	<b>Decrease or no change</b>	<b>Subdued increase (upto 5%)</b>	<b>Moderate increase (5 to 10%)</b>	<b>More than 10% increase</b>
<b>Food</b>	Tomatoes Gur Moong Fish Mash Vegetables	Sugar Confectionary Mineral Water Sugar Refined Salt	Meat	Fruit Prepared/Preserved Beverages, Potatoes Milk Food, Dry Fruits Fresh Fruits, Fresh Milk Vegetables, Prepared/Preserved, Tea Powdered Milk, Gram Whole, Onions, Eggs Chicken, Beans, Spices Cooking Oil, Oil Cakes Wheat Flour, Vegetable Ghee, Besan, Jowar Maize, Condiments Wheat, Cotton Seed Oil Gram Split, Mustard & Rapeseed Oil, Maida Rice, Bajra, Masoor
<b>Raw material</b>	Sugar Cane	Hides	Wool Pig Iron	Skins Tobacco Cotton Seeds Cotton Mustard/Rapeseeds
<b>Fuel &amp; lighting</b>			Natural Gas Elec. Agriculture Tariff-D	Electricity Ind. Supply Tariff-B, Mobil Oil Coal, Fire Wood Motor Sprit, Kerosine Oil Diesel Oil, Furnace Oil, Coke
<b>Manufactures</b>	Paper Drugs & Medicines Cotton Yarn Audio-Visual Instruments Cigarettes Foot Wear	Nylon Yarn Cosmetics Ready Made Garments Transports Other Electrical Goods	Dying Materials Jute Manufactures Woolen Textiles Glass Products Cotton Textiles Pesticides & Insecticised Mattresses	Silk & Reyon Textiles Hosiery, Sole Leather Machinery, Matches Utensils, Plastic Products Blended Yarn, Tubes Soaps, Tyres, Chrome Leather, Chemicals Fertilizers
<b>Building material</b>	Tiles		Bricks Cement Sanitary Wares	Timber Cement Blocks Glass Sheets Paints & Varnishes Wires And Cables Pipe Fittings Iron Bars & Sheets



**Table A8: SPI Item-wise Price Movements**

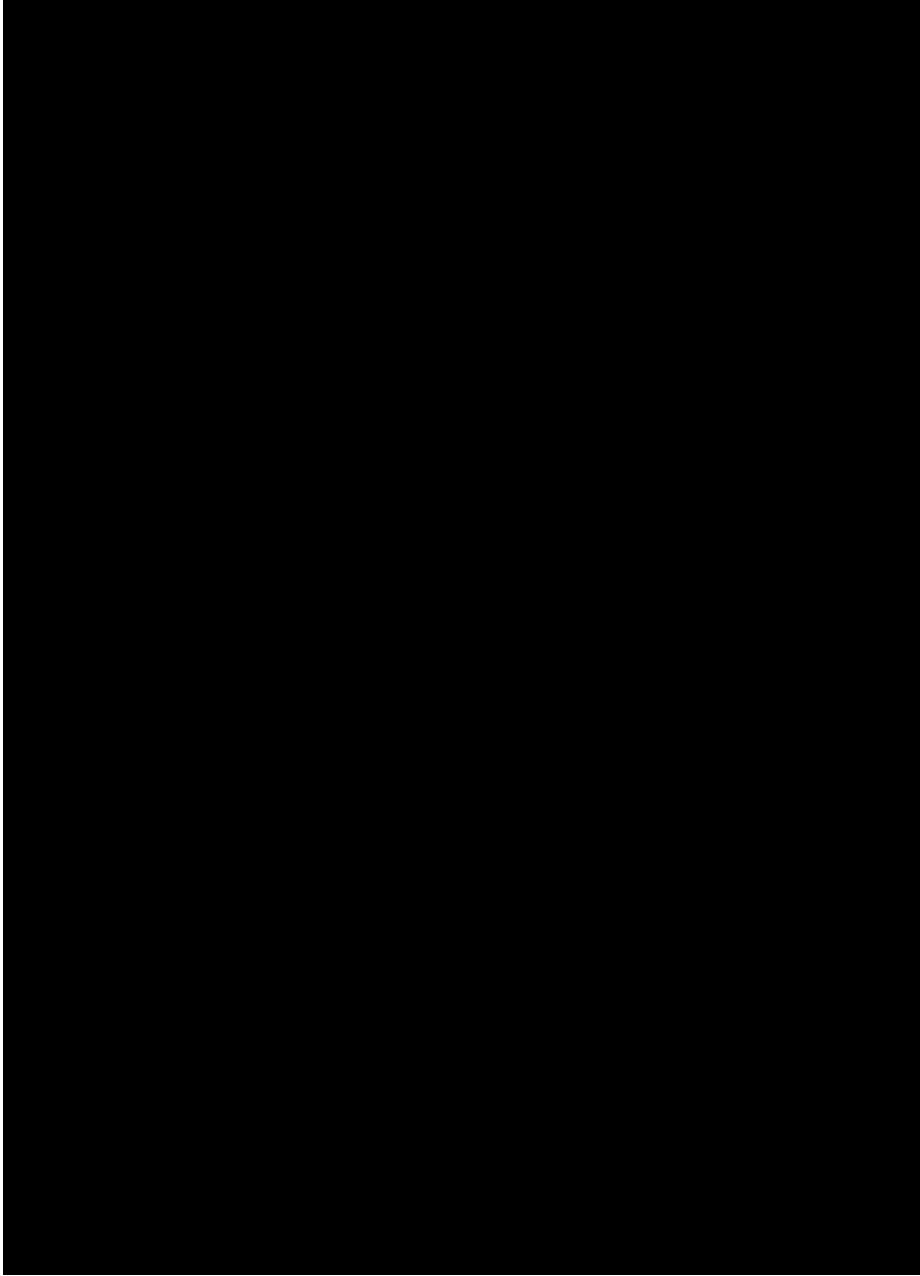
S.No	Items	Unit	Price June-08	Percentage change	
				YoY	Monthly
1	Wheat	Kg.	20.2	70.0	3.4
2	Wheat flour average quality.	Kg.	22.6	61.5	-1.0
3	Rice basmati broken	Kg.	54.1	77.8	2.6
4	Rice irri-6	Kg.	49.0	124.0	2.1
5	Masur pulse washed	Kg.	111.6	134.9	6.6
6	Moong pulse washed	Kg.	55.1	-1.9	-1.9
7	Mash pulse washed	Kg.	72.6	1.3	-0.5
8	Gram pulse washed	Kg.	59.1	56.5	-1.1
9	Beef	Kg.	131.3	8.9	2.3
10	Mutton	Kg.	246.4	6.9	0.6
11	Egg Hen (farm)	Doz.	47.9	21.6	0.5
12	Bread plain	Each	21.7	40.0	7.6
13	Sugar	Kg.	29.7	4.7	3.9
14	Gur	Kg.	31.8	-8.5	2.7
15	Milk fresh	Litr	34.0	18.6	2.8
16	Milk powdered Nido	400g	158.9	17.4	8.6
17	Curd	Kg.	40.0	19.2	2.2
18	Veg.ghee tin	2.5k	387.6	49.7	3.6
19	Veg.ghee loose	Kg.	134.0	54.0	2.3
20	Mustard oil	Kg.	145.2	68.0	0.8
21	Cooking oil	2.5L	392.9	51.8	2.4
22	Potatoes	Kg.	18.9	25.1	19.9
23	Onions	Kg.	15.5	27.1	3.1
24	Tomatoes	Kg.	12.6	-59.4	-23.7
25	Bananas	Doz.	51.5	46.2	3.0
26	Salt powdered	Kg.	5.4	16.2	0.9
27	Red chillies (powder)	Kg.	196.1	66.8	-6.5
28	Garlic	Kg.	34.9	-33.3	-6.9
29	Tea packet	250g	79.3	21.9	10.1
30	Tea (prepared)	Cup	7.5	15.0	1.4

**continued**

Table A8 (continued)

**Table A8: SPI Item-wise Price Movements**

S.No	Items	Unit	Price June-08	Percentage change	
				YoY	Monthly
31	Cooked beef plate	Each	36.5	18.9	1.4
32	Cooked dal plate	Each	23.6	27.5	1.2
33	Cigarettes K-2	10's	8.4	2.2	0.6
34	Coarse latha	Mtr.	42.2	18.8	1.1
35	Lawn (avg.+s.qlty)	Mtr.	90.7	8.2	1.6
36	Voil printed	Mtr.	44.8	15.2	3.0
37	Shirting	Mtr.	74.2	12.4	1.6
38	Sandel gents bata	Pair	499.0	0.0	0.0
39	Sandel ladies bata	Pair	299.0	0.0	0.0
40	Chappal spng. Bata	Pair	109.0	10.1	0.0
41	Kerosene	Litr	54.4	39.3	9.4
42	Firewood	40kg	238.0	18.5	0.5
43	Elec. Bulb 60-wats	Each	13.1	9.1	0.8
44	Match box	Each	1.0	26.6	0.0
45	Washing soap	Cake	11.3	33.1	1.1
46	Bath soap lifebuoy	Cake	19.9	32.7	2.1
47	Chicken (farm)	Kg.	83.7	27.2	-4.6
48	Gas chrg. All clb. Comb	D.mmbt	239.4	6.6	0.0
49	LPG.(cylinder 11kg.)	Each	683.0	25.2	9.1
50	Elec.chrg.all slabs com	Bd. Unit	5.5	8.2	0.0
51	Petrol	Litr	69.1	28.3	0.0
52	Diesel	Litr	50.3	32.8	0.0
53	Telephone local	Call	2.3	0.0	0.0
<b>Maximum</b>				<b>134.9</b>	<b>19.9</b>
<b>Median</b>				<b>19.2</b>	<b>1.2</b>
<b>Minimum</b>				<b>-59.4</b>	<b>-23.7</b>



(continued)

(continued)

Table A9: Consumer Price Index Numbers by Major Groups and Selected Commodities

Item and Specification	Weights	Index	
		Jun-07	Jun-08
<b>FUEL AND LIGHTING.</b>	<b>7.2912</b>	<b>151.06</b>	<b>168.25</b>
49 KEROSENE	0.1366	235.87	372.99
50 FIREWOOD	0.4778	215.38	263.16
51 MATCH BOX	0.1301	100.00	200.00
52 BULB & TUBE	0.1311	86.73	93.52
53 ELECTRICITY	4.3698	119.53	127.23
54 NATURAL GAS	2.0458	205.09	222.81
<b>H.HOLD.FURNITURE &amp; EQUIPMENT ETC.</b>	<b>3.2862</b>	<b>134.76</b>	<b>148.82</b>
55 UTENSILS	0.3690	121.14	133.09
56 PLASTIC PRODUCTS	0.1055	138.67	161.61
57 SUITCASE	0.0470	123.83	136.81
58 HOUSE HOLD EQUIPMENTS	0.0953	120.67	136.52
59 FURNITURE (Ready Made)	0.3054	133.46	158.78
60 FURNISHING	0.6362	129.02	142.35
61 ELECT.IRON FANS & WASHING MACHINE	0.1889	123.61	140.87
62 SEWING MACHINE,CLOCK AND NEEDLES	0.1270	118.35	127.17
63 REFRIGERATOR & AIRCONDITIONER	0.1756	97.95	110.76
64 MARRIAGE HALL	0.0445	142.47	170.34
65 HOUSE HOLD SERVANT	1.1918	152.24	163.30
<b>TRANSPORT &amp; COMMUNICATION.</b>	<b>7.3222</b>	<b>145.60</b>	<b>181.87</b>
66 PETROL	1.7253	175.59	247.64
67 DIESEL	0.2070	238.74	348.79
68 CNG. FILLING CHARGES	0.1649	142.39	184.96
69 SERVICE CHARGES	0.3835	131.24	151.73
70 VEHICLES	0.2596	100.85	110.67
71 TYRE & TUBE	0.2831	123.03	133.52
72 TRANSPORT FARE/CHARGES	2.1236	171.72	210.58
73 TRAIN FARE	0.1514	170.01	189.83
74 AIR FARE	0.0983	218.72	342.93
75 COMMUNICATION	1.9255	86.74	86.96
<b>RECREATION &amp; ENTERTAINMENT.</b>	<b>0.8259</b>	<b>105.85</b>	<b>116.35</b>
76 RECREATION	0.3399	100.97	124.83
77 ENTERTAINMENT	0.4860	109.26	110.41
<b>EDUCATION.</b>	<b>3.4548</b>	<b>137.11</b>	<b>149.77</b>
78 TUTION FEES	2.3629	143.77	156.00
79 STATIONERY	0.3500	123.29	145.57
80 TEXT BOOKS	0.6894	125.46	135.71
81 COMPUTER & ALLIED PRODUCTS	0.0525	82.48	82.10
<b>CLEANING LAUNDRY &amp; PER.APPEARANCE.</b>	<b>5.8788</b>	<b>127.42</b>	<b>150.02</b>
82 WASHING SOAP & DETERGENT	1.5535	118.05	140.42
83 TOILET SOAP	0.7436	126.18	169.54
84 TOOTH PASTE	0.4036	107.28	110.88
85 SHAVING ARTICLES	0.3480	112.59	131.98
86 COSMETICS	1.4272	124.76	133.08
87 WATCHES	0.0552	120.29	129.71
88 JEWELLERY	0.3936	198.73	281.58
89 LAUNDRY CHARGES	0.2207	144.68	163.21
90 HAIR CUT & BEAUTY PARLOUR CHARGES	0.7334	128.91	140.62
<b>MEDICARE.</b>	<b>2.0728</b>	<b>124.18</b>	<b>141.76</b>
91 DRUGS & MEDICARES	1.0752	106.75	112.18
92 DOCTOR'S FEE	0.9976	142.96	173.63

**Figure A1: CPI Non-food Inflation**

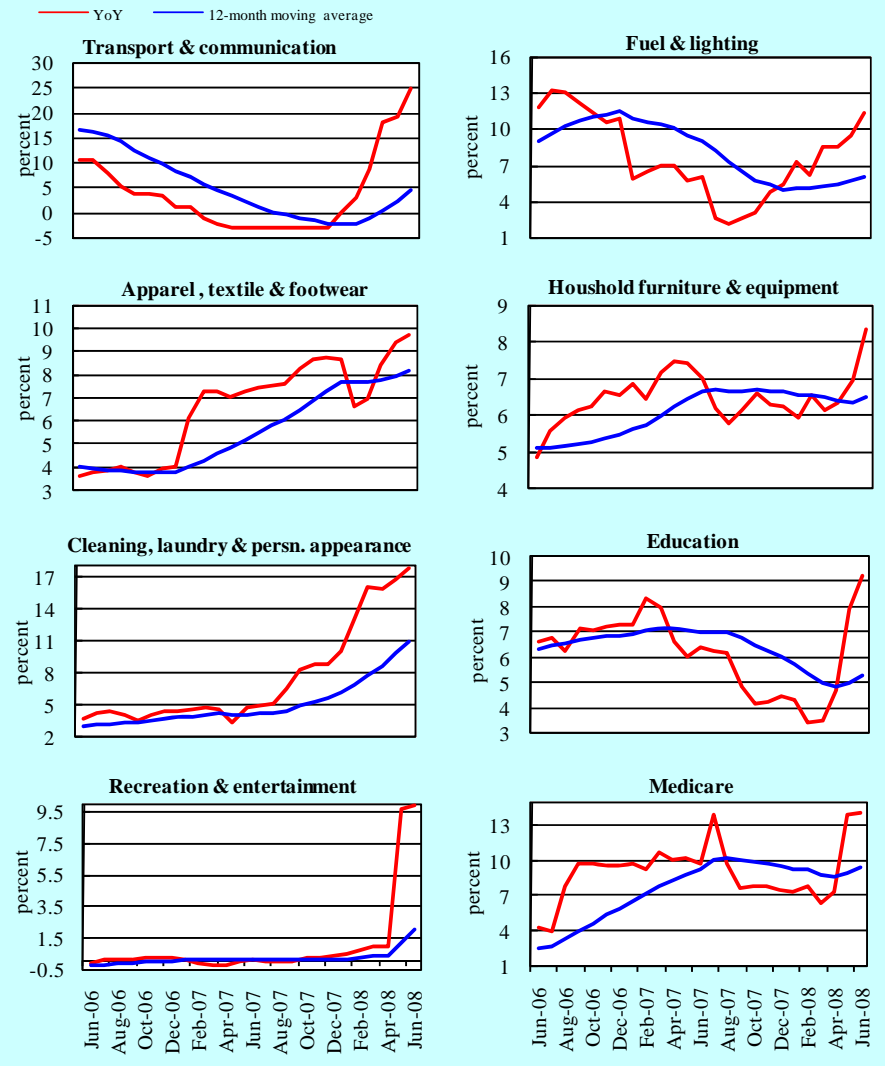
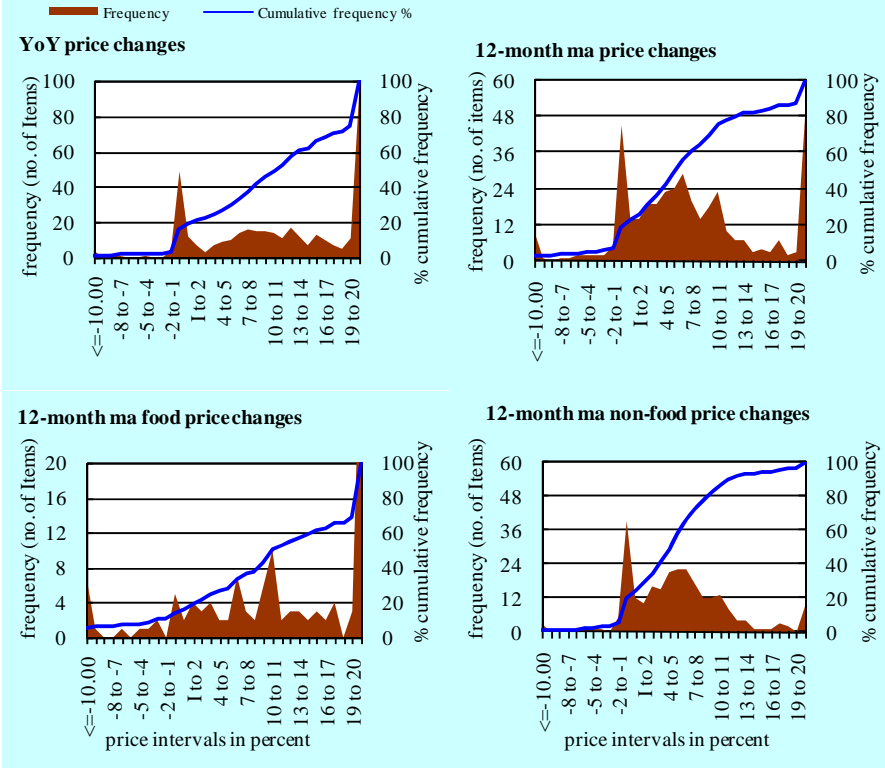
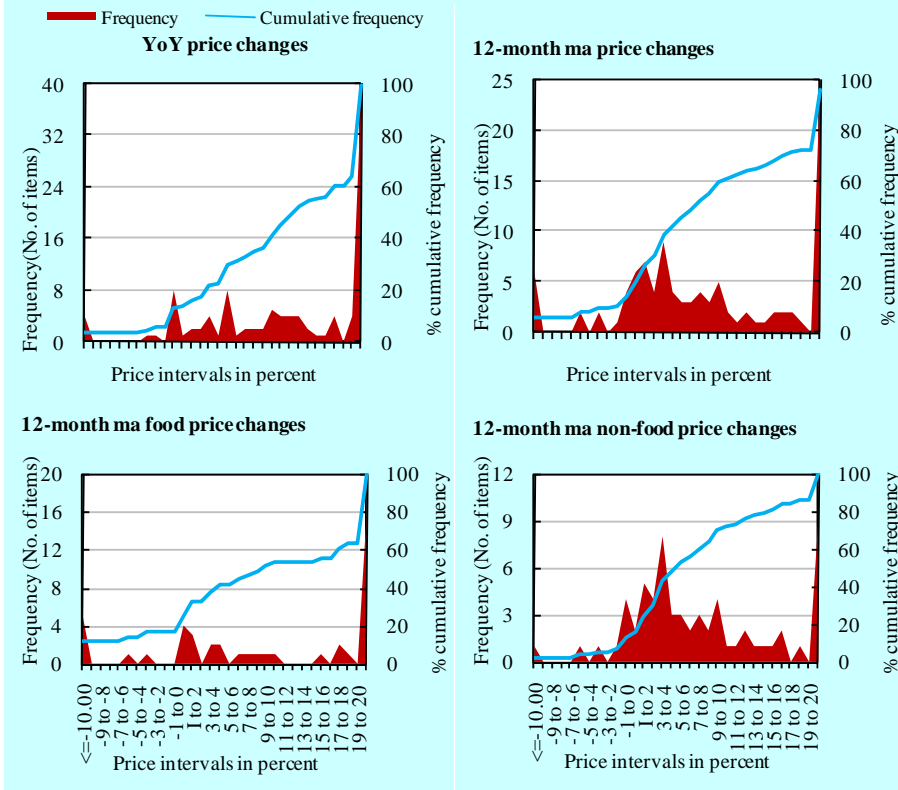


Figure A2: Frequency Distribution of Price Changes of CPI Items, June 2008



**Figure A3: Frequency Distribution of Price Changes of WPI Items, June 2008**



## **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 2000-01.
3. CPI basket contains 374 consumers' goods; WPI basket contains 425 commodities; SPI contains 53 commodities.
4. YoY inflation is the percent change of an index in a given month over the index in the same month of the last year. It is computed as follows:

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

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

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

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



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

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

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

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

8. Core Inflation is defined as the persistent component of measured inflation that excludes volatile and controlled prices. It reflects the normal supply and demand conditions in the economy. Core inflation is computed by the following two methods:

a) Non-food, Non-energy inflation (NFNE inflation); it is computed by excluding food group and energy items (kerosene oil, petrol, diesel, CNG, electricity and natural gas) from the CPI basket.

b) 20% trimmed-mean inflation; it is computed through the following steps:

- i. All CPI items are arranged in ascending order according to YoY/12-month moving average/monthly/period average changes in their price indices in a given month.
- ii. 20 percent of the items showing extreme changes are excluded with 10 percent of the items at the top of the list (corresponding to cumulative weight of 90% or more) and 10 percent of the items at the bottom of the list (corresponding to cumulative weight of 10 percent or less).
- iii. The weighted mean of the changes in price indices of the rest of the items is core inflation.

9. Weighted contribution of different items (or sub-groups) to total inflation is worked out as below:

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

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

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

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

Where  $C_{it}$  : Contribution of  $i^{\text{th}}$  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  $i^{\text{th}}$  item

$\pi_{it}$  : Inflation of  $i^{\text{th}}$  item

$\pi_t$  : Overall inflation