

# **Inflation Monitor**

**May 2009**



**State Bank of Pakistan**

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## Overview

Inflationary pressures eased further in May 2009, as headline CPI inflation (YoY) declined due to shrinking demand; resulting from slowdown in domestic economy and global recession. CPI inflation (YoY) declined to 14.4 percent during May 2009 compared to 19.3 percent in the same month last year and 17.2 percent in the preceding month. This decline came due to a significant deceleration in CPI food inflation (YoY). Non-food inflation (YoY) also declined during May 2009 compared to the previous month; however it was still higher than the level recorded during the same month last year.

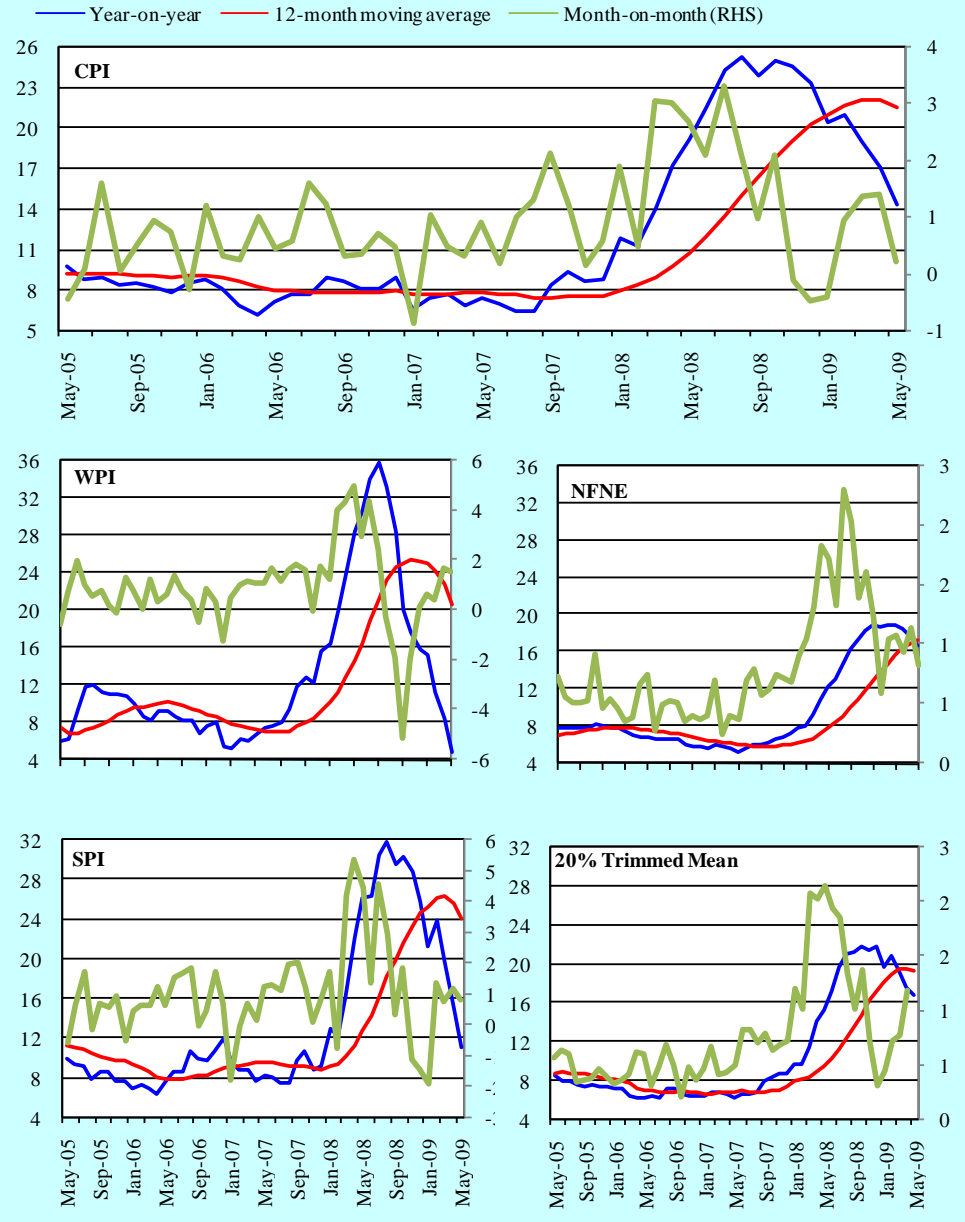
Month-on-month (MoM) basis CPI inflation was 0.2 percent during the month under review compared to 1.4 percent in April 2009 and 2.7 percent in May 2008. Both CPI food and non-food groups showed deceleration in inflation (MoM) during May 2009 (see **Table 1.1**).

Both measures of core inflation (YoY) showed deceleration during May 2009 compared to April 2009, though remained higher compared to the corresponding month last year. NFNE inflation (YoY) dropped 16.6 percent from 17.7 percent in April 2009; it was 12.3 percent during May 2008. Core inflation measured by 20% trimmed mean was 16.7 percent in May 2009 compared to 17.6 percent in the previous month and 15.1 percent in the same month last year.

Easing inflationary pressures were also seen in both wholesale price index (WPI) and sensitive price indicator (SPI). During May 2009, WPI inflation (YoY) showed decline of 3.6 percentage points compared to the previous month and 23.5 percentage points compared to the same month last year. Similarly SPI inflation (YoY) also dropped to 11.0 percent (YoY) during May 2009 compared to 15.0 percent during April 2009 and 26.2 percent in May 2008 (see **Figure 1.1**).

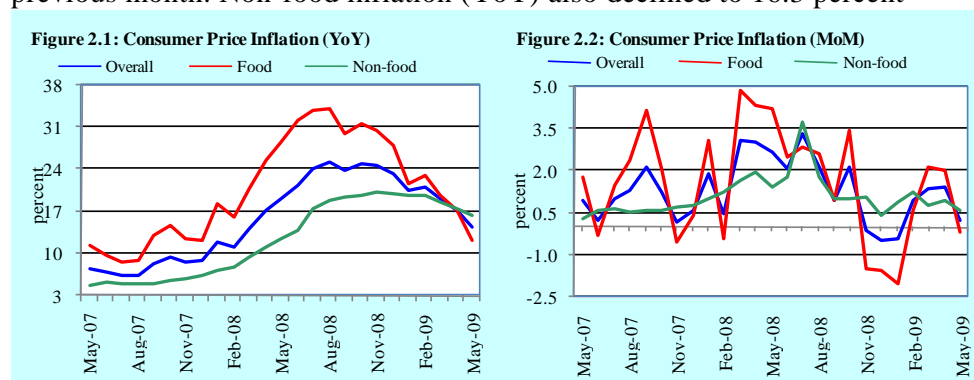
<b>Table 1.1: Different Dimensions of Inflation (percent)</b>					
	<b>May-08</b>	<b>Jun-08</b>	<b>Apr-09</b>	<b>May-09</b>	<b>5-year average#</b>
<b>Year-on-year (May over May)</b>					
<b>Overall CPI</b>	<b>19.3</b>	<b>21.5</b>	<b>17.2</b>	<b>14.4</b>	<b>10.1</b>
Food group	28.5	32.0	17.0	12.1	13.6
Non-food group	12.5	13.8	17.3	16.3	7.7
<b>WPI</b>	<b>28.2</b>	<b>30.6</b>	<b>8.3</b>	<b>4.7</b>	<b>12.3</b>
<b>SPI</b>	<b>26.2</b>	<b>26.3</b>	<b>15.0</b>	<b>11.0</b>	<b>12.6</b>
<b>Core Inflation</b>					
NFNE*	12.3	13.0	17.7	16.6	7.5
Trimmed	15.1	17.2	17.6	16.7	8.4
<b>Period average (July over May)</b>					
<b>Overall CPI</b>	<b>11.1</b>	<b>12.0</b>	<b>22.3</b>	<b>21.6</b>	<b>8.1</b>
Food group	16.3	17.6	26.6	25.1	10.3
Non-food group	7.3	7.9	19.0	18.7	6.5
<b>WPI</b>	<b>15.1</b>	<b>16.4</b>	<b>21.4</b>	<b>19.7</b>	<b>9.3</b>
<b>SPI</b>	<b>13.1</b>	<b>14.2</b>	<b>25.5</b>	<b>24.0</b>	<b>9.5</b>
<b>Core Inflation</b>					
NFNE*	7.9	8.4	17.8	17.7	6.4
Trimmed	9.6	10.2	19.9	19.6	7.2
<b>12-month moving average</b>					
<b>Overall CPI</b>	<b>10.8</b>	<b>12.0</b>	<b>22.0</b>	<b>21.5</b>	<b>8.0</b>
Food group	15.8	17.6	27.2	25.6	10.2
Non-food group	7.2	7.9	18.1	18.4	6.5
<b>WPI</b>	<b>14.4</b>	<b>16.4</b>	<b>22.7</b>	<b>20.5</b>	<b>9.2</b>
<b>SPI</b>	<b>12.7</b>	<b>14.2</b>	<b>25.6</b>	<b>24.1</b>	<b>9.3</b>
<b>Core Inflation</b>					
NFNE*	7.8	8.4	17.0	17.4	6.4
Trimmed	9.4	10.2	19.4	19.3	7.1
<b>Monthly</b>					
<b>Overall CPI</b>	<b>2.7</b>	<b>2.1</b>	<b>1.4</b>	<b>0.2</b>	<b>0.9</b>
Food group	4.2	2.5	2.0	-0.2	1.0
Non-food group	1.4	1.8	0.9	0.6	0.7
<b>WPI</b>	<b>5.0</b>	<b>3.0</b>	<b>1.7</b>	<b>1.5</b>	<b>1.4</b>
<b>SPI</b>	<b>4.5</b>	<b>1.4</b>	<b>1.2</b>	<b>0.8</b>	<b>1.6</b>
<b>Core Inflation</b>					
NFNE*	1.7	1.3	1.1	0.8	0.8
Trimmed	2.2	1.9	1.2	0.9	0.9
* NFNE is Non-food non-energy inflation					
# 5-year average for the month of May in the previous years					

Figure 1.1: Movements in Price Indices (percent change)

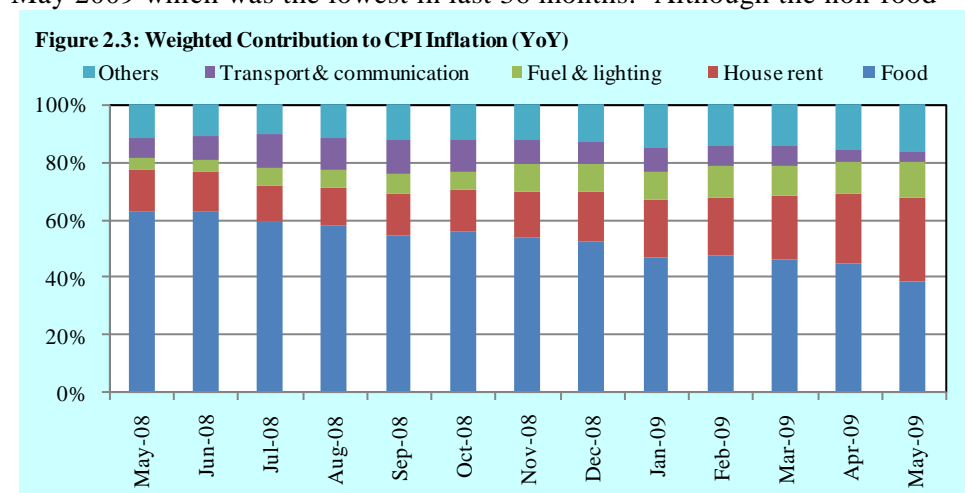


## 2. Consumer Price Index

During May 2009, CPI YoY inflation was 14.4 percent depicting a decline of 2.8 percentage points from the previous month and 4.9 from the corresponding month last year. The main contributing factor behind this decline was food inflation which was 4.9 percentage points less than the previous month. Non-food inflation (YoY) also declined to 16.3 percent



(lowest in FY09). The decline in CPI YoY inflation came due to a decrease in prices of some major food commodities, and decrease in prices of some components of fuel & lighting and transport & communication groups. CPI inflation (MoM) also declined during May 2009 and was recorded at 0.2 percent; 1.2 percentage points less than the previous month. This decline in CPI inflation (MoM) was mainly due to deceleration in food inflation (MoM). The contribution of food group in overall inflation declined to 38.5 percent in May 2009 which was the lowest in last 36 months. Although the non-food



inflation also decelerated, its contribution remained higher due to a faster decline in food inflation in recent months (see **Figure 2.1 & 2.2**). Among the

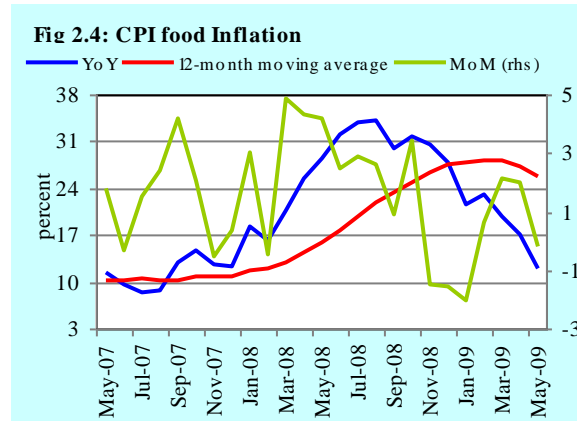


components of non-food group weighted contribution of house rent index showed 4.4 percentage points rise during May 2009 compared with the preceding month (see **Figure 2.3**).

## 2.1 Food Inflation

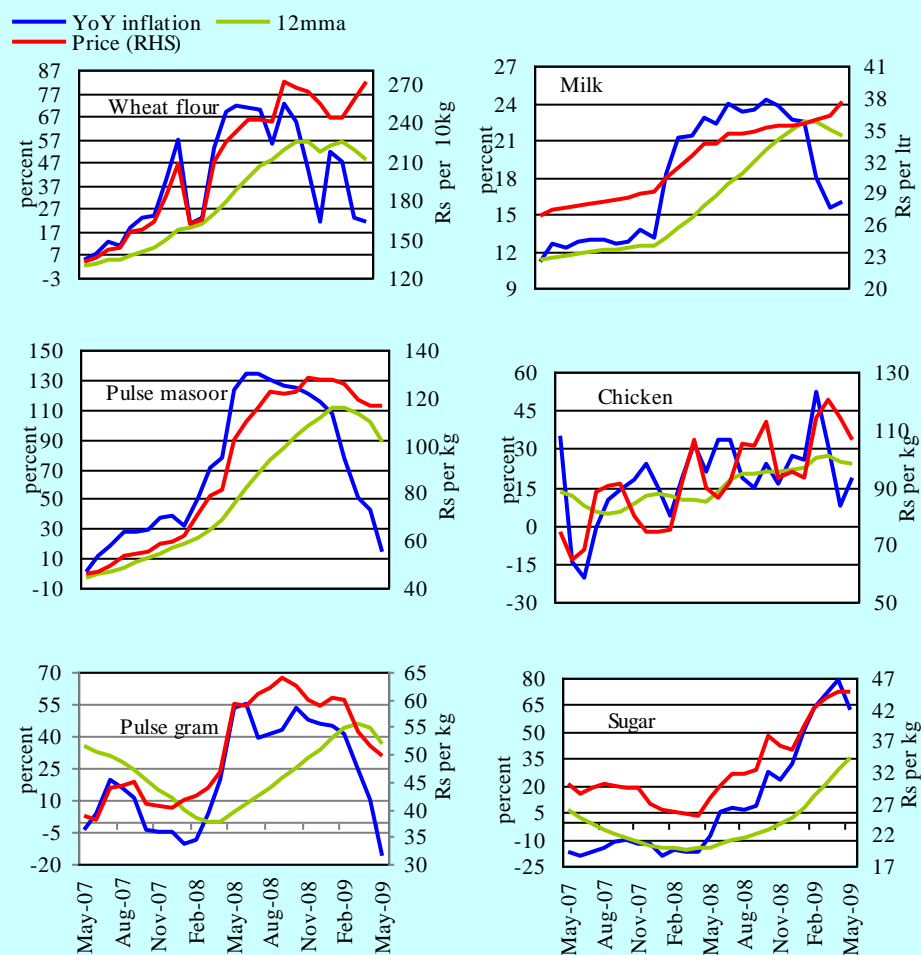
Food inflation (YoY) decreased significantly during May 2009 reaching 12.1 percent compared to 17.0 percent during April 2009 and 28.5 percent in May 2008 (see **Figure 2.4**).

Similar to April 2009, six out of top ten contributions to CPI inflation during May 2009 were from food group i.e. wheat flour, fresh milk, sugar, meat, vegetables and readymade food. Combined weighted contribution of these food items in the overall CPI basket was 33.2 percent (see **Table A3** in the annexure). Within food group, just four items i.e. wheat flour, fresh milk, sugar and onions contributed 70.2 percent to YoY food inflation.

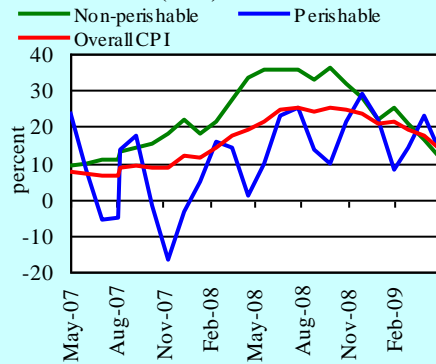
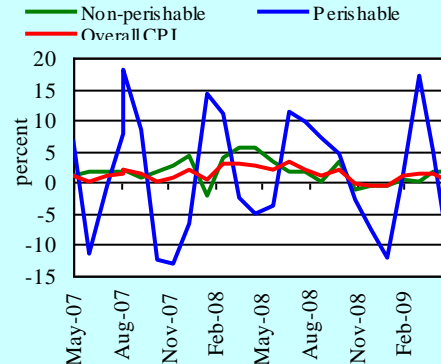


Of the total 110 reported commodities in CPI food group, 67 commodities including sugar, coriander seed powder, some vegetables, wheat and powder milk exhibited price changes (YoY) in the range of 10 to 90 percent during May 2009. Only coffee witnessed more than 100 percent price change (YoY). On the other hand, price change (YoY) in 17 commodities i.e., different types of rice, vegetable ghee, cooking oil and green chilies declined during the month under review (only one item-chocolate candy-showed no change). Remaining 24 items showed moderate price changes (YoY) during May 2009 (see **Figure 2.5** and **Table A2** in **Annexure A**).

Figure 2.5: Price Trends in Key Food Items



On month-on-month (MoM) basis, CPI food prices showed a decline of 0.2 percent during May 2009 compared to increase of 2.0 percent in April 2009 and a rise of 4.2 percent in the corresponding month of 2008. Detailed analysis of CPI food basket on MoM basis showed that only 3 items including gur, banana and potatoes showed double digit price change during May 2009, whereas prices of 40 items including chillies green, onion, tomatoes, rice, wheat, chicken, fish, cooking oil etc. declined.

**Figure 2.6: Non-perishable & perishable food items Inflation (YoY)****Figure 2.7: Non-perishable & perishable food items Inflation (MoM)**

Within food group, further disaggregation (of 40 composite food items in the CPI basket) can be made on the basis of perishable<sup>1</sup> and non-perishable<sup>2</sup> commodities. Inflation (YoY) recorded in the perishable group was 14.0 percent in May 2009 compared to 1.2 percent during May 2008 and 22.7 percent during the preceding month. Prices of perishable group are often volatile and this is reflected in the inflation (MoM) which reached (-)11.9 percent in May 2009 compared to (-)5.2 percent in the same month last year and 4.8 percent during April 2009. Inflation (YoY) in non-perishable group declined during the month under review and reached 11.9 percent compared to 33.1 percent during the corresponding month last year and 16.2 percent in April 2009. On MoM basis inflation in non-perishable group was recorded at 1.6 percent in May 2009 compared to 5.5 percent in May 2008 (see **Fig 2.6 & 2.7**).

## 2.2 Non-food Inflation

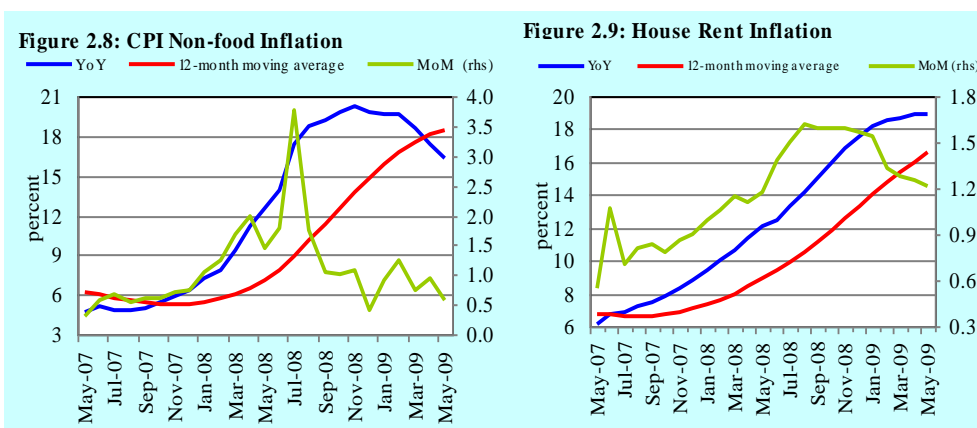
During May 2009, CPI non-food inflation (YoY) showed decline compared to the previous month but was higher than the level recorded during the same month last year. CPI non-food inflation (YoY) was recorded at 16.3 percent during the month under review compared to 12.5 percent in May 2008 and 17.3 percent in April 2009 (see **Figure 2.8**). Similar to the previous month, inflation (YoY) in all sub-groups of non-food group, except *house rent index*, showed a decline during the month under review compared to the previous month.

Inflation (YoY) in *house rent index* continued its rising trend during May 2009 and was recorded at 18.9 percent compared to 12.0 percent in May 2008 but remained same during the corresponding month last year. Inflation (MoM) in this

<sup>1</sup> Only five of these composite items, potatoes, onions, tomatoes, vegetables and fresh fruits, are included in perishable group with a total weight of 5.14 percent in overall CPI basket.

<sup>2</sup> The remaining 35 composite items, have a weight of 35.0 percent, in the non-perishable group

sub-group showed a decline of 0.1 percentage points compared to the preceding month and remained same compared with the same month last year (see **Figure 2.9**).



Inflation (YoY) in *recreation & entertainment* sub-group was 4.7 percent during May 2009 compared to 13.7 percent in the previous month and 9.7 percent in the corresponding month last year. Similarly inflation (YoY) in *medicare* sub-group declined to 6.5 percent during May 2009 compared to 13.4 percent in the previous month and 14.1 percent in the corresponding month last year.

Other indices of non-food group including *apparel, textile & footwear, fuel & lighting, household furniture & equipment, transport & communication, cleaning, laundry & personal appearance, and education* showed decline in inflation (YoY) during the current month compared to the preceding month (see **Figure A1** in Annexure).

Detailed item-wise analysis of CPI non-food basket revealed that prices of eight items declined, 28 showed no change in their prices, 17 showed price change between 0 to 5 percent, 45 moved between 5 to 10 percent and 150 commodities showed price change of more than 10 percent. Only two commodities showed significant rise in prices i.e. over 100 percent including English Book for class IX and X (137.0 percent); UMS charges (102.9 percent) (see **Table A2 & A4** in the Annexure). A MoM based analysis shows that prices of 17 items recorded a decline, 133 items exhibited no change in their prices, 49 items recorded price change from 0 to 0.5 percent, prices of 18 items ranged between 0.5 to 1.0 percent, remaining 31 items showed more than 1 percent change in their prices. However two commodities including Urdu Book class IX & X (23.1 percent) and glaxos-D (31.9 percent) showed double digit price change.

### 2.3 City-wise Inflation

During May 2009, inflation (YoY) in all major cities was less than overall CPI inflation. However, on MoM basis, inflation was higher than the average CPI inflation in three out of five major cities (see **Table 2.1**).

	May-08		Apr-09		May-09	
	MoM	YoY	MoM	YoY	MoM	YoY
<b>Over all CPI</b>	<b>2.7</b>	<b>19.3</b>	<b>1.4</b>	<b>17.2</b>	<b>0.2</b>	<b>14.4</b>
Islamabad	3.0	16.4	1.6	15.9	0.3	12.8
Lahore	2.8	17.4	2.1	15.6	0.6	13.2
Karachi	3.6	18.6	1.0	17.6	-0.5	12.9
Quetta	5.2	21.8	0.9	18.6	-0.2	12.5
Peshawar	4.0	21.8	1.0	18.2	0.3	14.1

**Table 2.2: City-wise Inflation in CPI (YoY) May 2009**

	High inflation cities				Low inflation cities		
	General	Food	Non-food		General	Food	Non-food
Shahdarpur	19.4	19.2	19.5	Mianwali	14.3	11.7	16.5
Okara	18.2	16.1	19.9	Peshawar	14.1	10.8	16.9
Nawabshah	17.9	17.3	18.4	Turbat	13.5	13.6	13.4
D.G. Khan	17.2	14.7	19.4	Sargodha	13.4	11.6	15.0
Mirpur Khas	16.5	14.3	18.3	Samundari	13.2	10.7	15.3
Abbottabad	16.1	12.3	19.4	Lahore	13.2	10.5	15.6
Kunri	16.1	13.5	18.3	Larkana	13.1	10.1	15.7
Jhang	15.8	15.0	16.4	Karachi	12.9	9.5	15.7
Vehari	15.7	14.4	16.9	Islamabad	12.8	9.8	15.3
Khuzdar	15.7	13.8	17.2	Bahawalpur	12.7	11.2	13.9
Attock	15.5	14.8	16.0	Quetta	12.5	8.4	16.2
Bahawalnagar	15.3	15.2	15.4	Bannu	12.1	9.2	14.5
Hyderabad	15.1	13.3	16.6	Gujranwala	11.9	8.6	14.6
Faisalabad	15.1	13.4	16.6	Loralai	10.9	8.5	12.9
Rawalpindi	15.0	13.8	16.0				
Jhelum	15.0	13.9	15.8				
Multan	14.8	14.3	15.3				
D.I.Khan	14.6	12.0	16.8				
Sialkot	14.6	10.6	18.1				
Sukkur	14.4	11.6	16.7				
Mardan	14.4	11.5	16.7				

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

Analysis of city-wise data collected from 35 cities revealed that 21 cities were in the category of high inflation cities, while remaining 14 cities were categorized in low inflation cities during May 2009. The highest inflation (YoY) was recorded in Shahdarpur followed by Okara, whereas the lowest inflation (YoY) was recorded in Loralai. Among 35 cities Shahdarpur and Quetta were the highest and lowest in

food inflation (YoY). Okara and Loralai were the highest and lowest in non-food inflation (YoY) during May 2009 (see **Table 2.2**).

City-wise data revealed that out of 35 cities, inflation (MoM) in 17 cities was higher and remaining 18 cities had lower, than the overall CPI inflation (MoM). The highest inflation of 2.1 percent (MoM) was recorded in Faisalabad during May 2009 as against the deflation of 0.5 percent (MoM) in Nawabshah.

## 2.4 Income Group-wise Inflation

Similar to previous month, during May 2009, income group wise inflation (YoY) data revealed that all income groups, except for the highest income group, experienced CPI inflation (YoY) higher than overall CPI inflation (YoY). Following the YoY trend, inflation on MoM basis during May 2009, only the highest income group had lower inflation (MoM) than overall CPI inflation (MoM) (see **Table 2.3**).

<b>Table 2.3: Income Group-wise CPI Inflation</b>								percent
	<b>Upto 3000</b>		<b>Rs.3001-5000</b>		<b>Rs.5001-12000</b>		<b>Above Rs.12000</b>	
	May-08	May-09	May-08	May-09	May-08	May-09	May-08	May-09
<i>Year-on-year (May over May)</i>								
General	17.0	14.4	16.6	14.5	14.9	15.0	12.8	13.6
CPI Food	22.5	13.5	22.6	12.7	21.3	12.3	18.8	11.5
CPI Non-food	13.0	15.1	12.4	16.0	10.2	17.2	8.2	15.5
<i>Month-on-Month (May over April)</i>								
General	3.5	0.6	3.7	0.5	3.2	0.3	2.9	0.0
CPI Food	4.7	0.6	5.0	0.4	4.9	0.0	4.8	-0.8
CPI Non-food	2.5	0.6	2.6	0.6	1.8	0.6	1.4	0.7

During May 2009, city and income group wise data, collected from 17 cities, showed that Sukkur recorded the highest inflation for income group upto Rs 3000 (16.0 percent), Rawalpindi for income groups Rs 3001 – 5000 (15.7 percent) and Rs 5001 – 12000 (16.2 percent) and Khuzdar for income group above Rs 12000 (15.5 percent), whereas Khuzdar and Quetta experienced the lowest inflation for the first two income groups and Gujaranwala recorded the lowest inflation for the last two income groups (see **Table A5** in Annexure A).

## 2.5 Services and Non-services Inflation

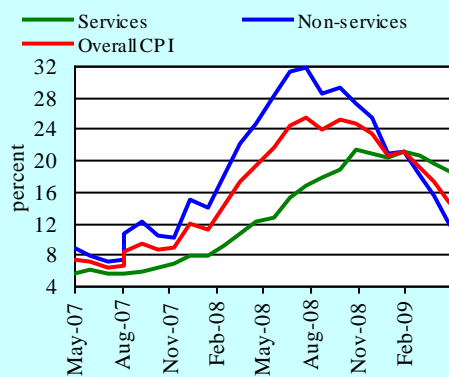
Similar to the previous month, inflation (YoY) in services<sup>3</sup> and non-services sectors showed decline during May 2009, compared to the preceding month, while it registered increase compared to the same month last year. Inflation (YoY) in services sector was 18.5 percent compared to 12.1 percent during May 2008 and

<sup>3</sup> Services group of the CPI basket includes items like house rent index, electricity charges, marriage halls, household servants, transport fare, communication, recreation, tuition fees, laundry charges, hair cut & beauty parlor charges, doctor's fee, tailoring charges.

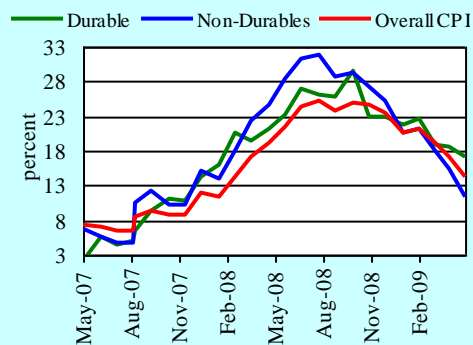
19.6 percent in April 2009. Inflation on MoM basis also showed a decline during the review month (0.7 percent) as compared to the previous month (1.1 percent).

Inflation (YoY) in non-services sector declined during May 2009 and was recorded at 11.6 percent compared to 24.6 percent in the corresponding month last year, and 15.5 percent in April 2009. Inflation (MoM) in this sector also declined to (-) 0.1 percent in May 2009 from 1.7 percent during April 2009 (see **Figure 2.10**).

**Figure 2.10: Services & Non-services Inflation**



**Figure 2.11: Durables and Non-durables Inflation**



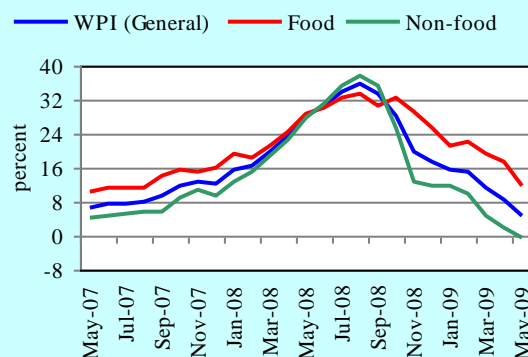
Further segregation of non-services group into durable<sup>4</sup> and non-durable sub-groups shows that inflation (YoY) in durable items was recorded at 17.1 percent during May 2009 compared to 21.2 percent in the same month last year and 18.6 percent in the previous month. Inflation (MoM) in prices of durable items showed acceleration and was recorded at 0.5 percent during May 2009 compared to (-) 0.2 percent in April 2009 and 1.8 percent during the corresponding month last year. Inflation (YoY) for non-durable items was recorded at 11.4 percent during the month under review compared to 24.7 percent in the same month last year and 15.4 percent in the previous month. Inflation (MoM) in this sub-group showed decline and was recorded at (-) 0.1 percent during May 2009 compared to 1.7 percent in the previous month (see **Figure 2.11**).

<sup>4</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.

### 3. Wholesale Price Index

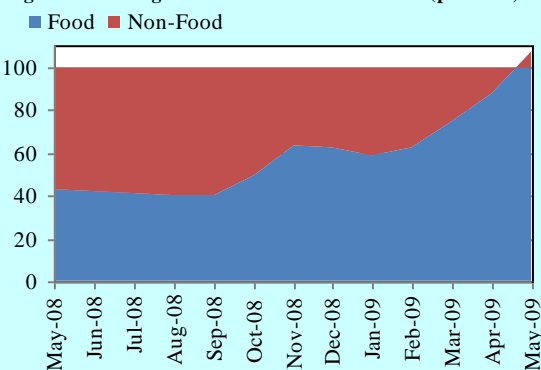
Inflation measured by wholesale price index (WPI) continued to decline on YoY basis and reached 4.7 percent in May 2009 compared to 28.2 percent during the same month last year. This considerable downtrend in WPI inflation was mainly because of deflation in non-food group. WPI non-food deflation (YoY) was recorded at 0.6 percent during May 2009 (first ever deflation since May 2002) compared to 27.8 percent inflation in the same month last year. The food group of WPI also showed deceleration compared to the previous month and the same month last year and reached 12.0 percent during May 2009 (see **Figure 3.1**).

**Figure 3.1: Wholesale Price Inflation**



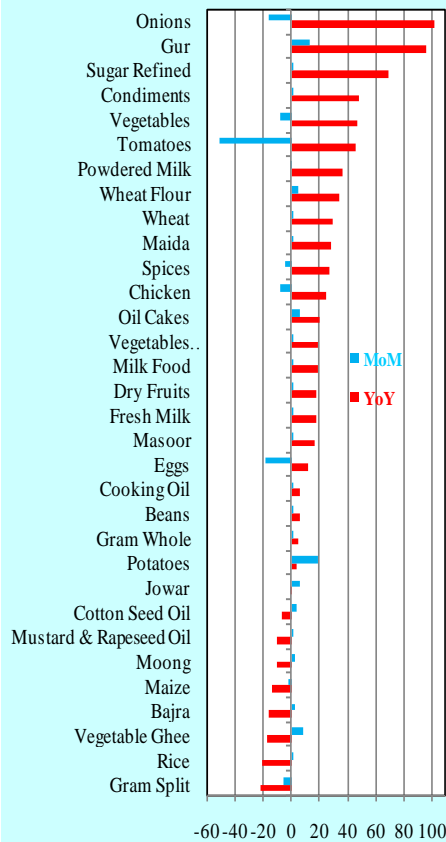
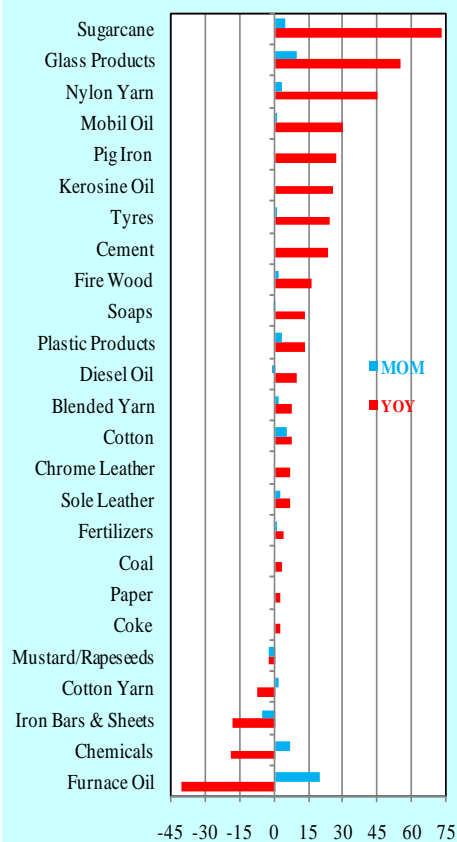
In terms of weighted contribution to overall WPI inflation, negative YoY growth registered by WPI non-food group resulted in its negative contribution to overall WPI inflation. Consequently the weighted contribution of WPI food group crossed the 100 percent mark and reached 107.6 percent in May 2009, compared to 43.2 percent during the same month last year (see **Figure 3.2**).

**Figure 3.2: Weighted Contributions in WPI (percent)**

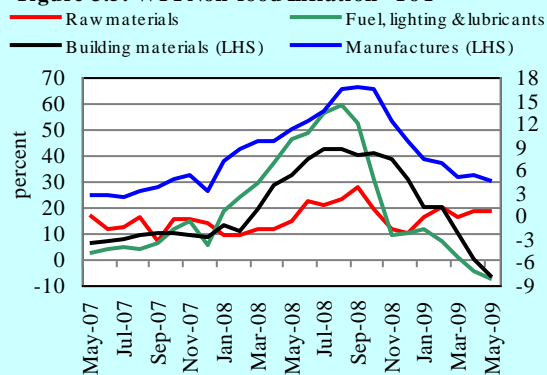


Within WPI food group major items recording substantial YoY price increase during the month under review included onions, gur, sugar, condiments, vegetables, and tomatoes. In particular onions continued to register more than 100 percent YoY price increase for the fourth consecutive month during May 2009. In contrast, ten wholesale food items, including gram split, rice, vegetable ghee, bajra, maize, pulse moong, mustard & rapeseed oil showed YoY price decline during the month under review (see **Table A7 & Figure 3.3**).



**Figure 3.3: Changes in Wholesale Prices of Selected Food Items (May 2009)****Figure 3.4: Changes in Wholesale Prices of Selected Non-food Items (May 2009)**

An item-wise analysis of WPI non-food group shows that items like sugarcane, glass products and nylon yarn registered more than 40 percent YoY price rise during May 2009 (see **Table A7** and **Figure 3.4**). Prices of nine non-food items, including furnace oil, chemicals, and iron bars & sheets showed negative growth (YoY) during the month under review.

**Figure 3.5: WPI Non-food Inflation -YoY**

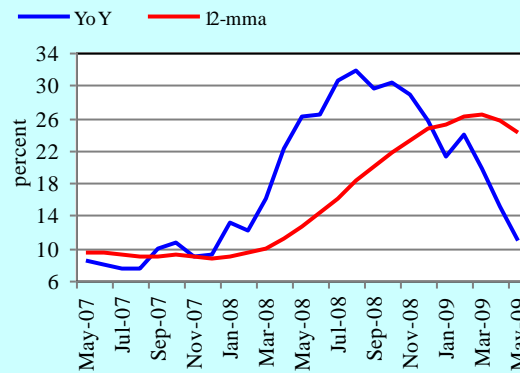
Among various sub-indices included in the WPI non-food group, all sub-indices, except *raw material* sub-index, recorded lower inflation (YoY) during May 2009 compared to the same month last year and also the previous month (see **Figure 3.5**). Strength in the *raw material* sub-group was contributed by items like sugarcane, pig iron and tobacco. On the other hand two sub-groups including *fuel, lighting & lubricants* sub-group and *building material* sub-group recorded negative YoY growth during the month under review.

A detailed item-wise analysis of YoY price changes of WPI non-food items is presented in **Table A7**.

#### 4. Sensitive Price Indicator

Sensitive price indicator (SPI) registered a decline in inflation on YoY basis during May 2009 and reached 11.0 percent, as against 26.2 percent during the same month last year. The long run trend in SPI inflation measured by 12 month moving average (12mma) continued to decelerate for the second consecutive month during May 2009 and reached 24.1 percent compared to 25.6 percent in April 2009 (see **Figure 4.1**).

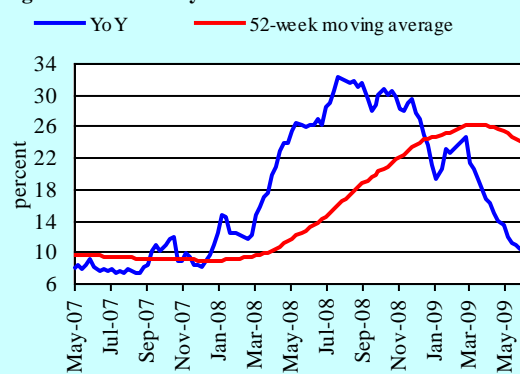
**Figure 4.1: SPI Inflation (YoY)**



A disaggregated analysis of the SPI basket shows that items like gur (80.6 percent), sugar (57.2 percent), and onions (49.0 percent) showed significant YoY price increase during May 2009. In contrast, 12 items including red chillies, rice, pulse gram, vegetable ghee, pulse moong, petrol, cooking oil and mustard oil witnessed decline in their prices on YoY basis during the month under review (see **Table A8** in Annexure A).

MoM SPI inflation registered a decline during May 2009 reaching 0.8 percent compared to 1.2 percent in the previous month and 4.5 percent during the same month last year. Items recording double digit MoM price growth during the month under review included potatoes and gur (see **Table A8** in Annexure A). On the other hand, more than 50 percent of the items included in the SPI basket either declined or showed no change in their price level on MoM basis.

**Figure 4.2: Weekly SPI Inflation**



Weekly SPI inflation (YoY) decelerated throughout May 2009 and fluctuated within the range of 10.2 percent to 11.8 percent (see **Figure 4.2**).

Income group-wise analysis of SPI inflation (YoY) showed that the incidence of inflation (YoY) remained the highest for the income group having monthly income of Rs 5000 to 12000 during May 2009 (see **Table 4.2**).

**Table 4.1 : Income Group-wise SPI Inflation (YoY)**

	percent			
	May-08	Jun-08	Apr-09	May-09
Up to Rs. 3000	29.9	30.0	15.8	11.2
Rs. 3001-5000	29.1	29.2	16.0	11.6
Rs. 5000-12000	26.8	27.0	17.2	13.1
Above Rs. 12000	23.2	23.5	15.1	11.5
<b>All income groups</b>	26.2	26.3	15.0	11.0

## 5 Global Commodity Prices

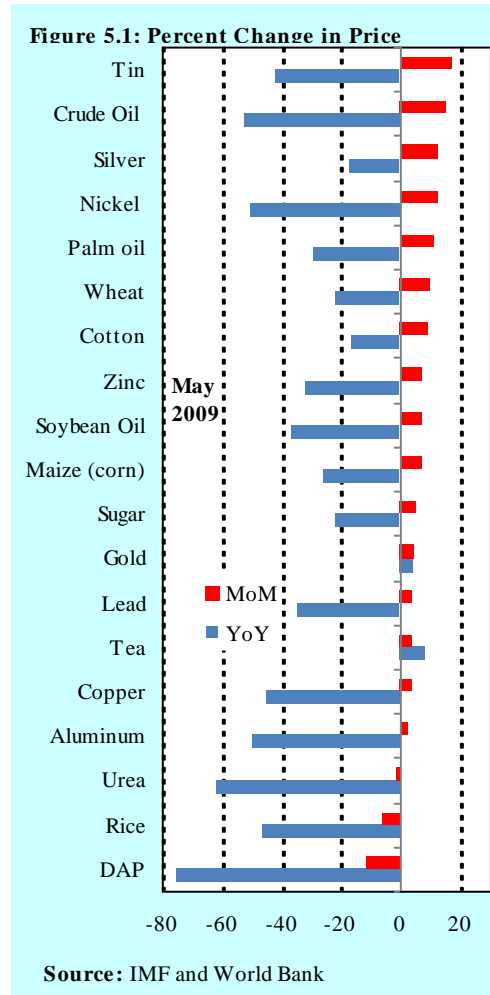
In the international commodity markets, prices of most of the commodities increased on MoM basis during May 2009, however on YoY basis these decreased significantly.

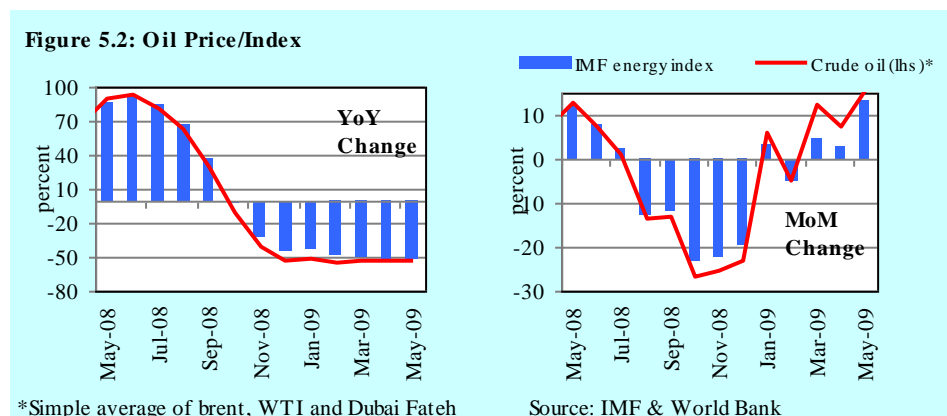
Crude oil prices rose sharply in May 2009 as global economy is on its way to recovery which is creating greater demand for the commodities including the crude oil. Industrial metal prices increased during the month of May 2009 as China's State Reserves Bureau is building up stockpiles.

Precious metals prices also rose during the month under review as investors are taking interest in gold to hedge against the weaker dollar and inflation concerns in US.

Prices of edible oils rose during May 2009 on supply squeeze, as soybean output in Argentina declined, and output of palm oil decreased in Malaysia due to bad weather conditions. Moreover strong demand from India and China, the two largest consumers of edible oils also pushed the prices upward.

Other commodities including grains, cotton and sugar also increased during May 2009. However prices of fertilizers and rice continued on the declining trend (see **Figure 5.1**).

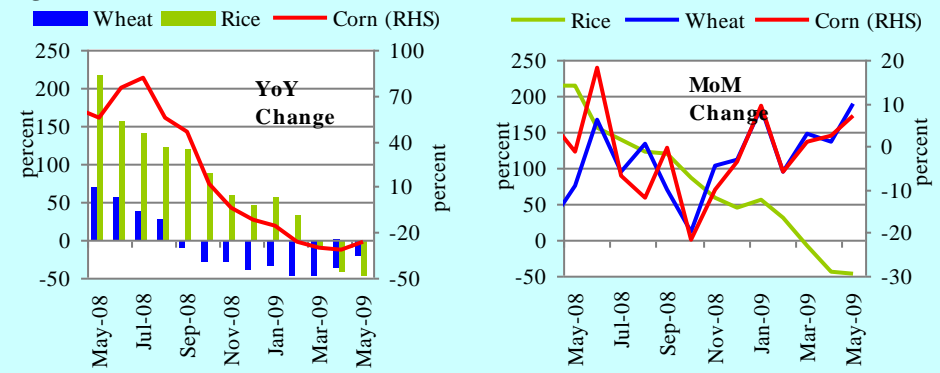




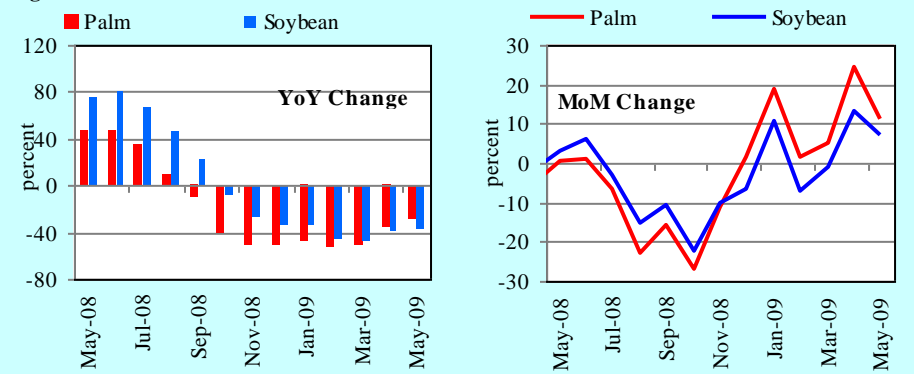
Among commodity groups, energy prices moved up significantly and the crude oil price increased by 15.4 percent on MoM basis. Prices of crude oil rose mainly due to (a) a drop in its stockpiles according to the US Energy Department report; and (b) increased oil demand by investors as a hedge against inflation due to weakening of dollar against its major counterparts (see **Figure 5.2**).

Grains prices showed mix trend during the month as prices of wheat and corn went up, while the prices of rice decreased during the month. Prices of wheat and corn increased by 9.9 percent, and 6.9 percent while rice prices decreased by 6.3 percent on MoM basis (see **Figure 5.3**). Current rise in wheat and corn prices in international markets was mainly on account of concerns of delay in planting in US on bad weather conditions, and increasing international demand. On the other hand, decline in rice prices was mainly attributed to a record global crop in 2009 and growing global stockpiles according to US Agriculture Department (USDA) report.

The USDA has increased its supply forecast to be 94.7 million tonnes of rice in 2009-10 from 89.8 million tonnes forecast for 2008-09. Earlier, USDA had estimated 2008-09 world rice stocks at 86.1 million tonnes.

**Figure 5.3: Prices of Grains**

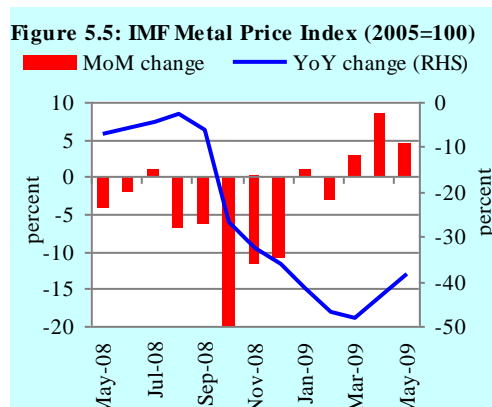
Edible oil prices continued to increase on MoM basis however, the pace of increase has slightly slowed down this month. Palm oil price has increased by 11.4 percent, while soybean prices showed a 7.4 percent increase during the month on MoM basis on account of strong demand from China and India, coupled with fears of supply problems as lower output of soybean is expected in Argentina (see **Figure 5.4**).

**Figure 5.4: Edible oil**

Metals' prices also increased during May 2009, as hopes of global economic recovery have increased demand for auto industry and hence the demand for industrial metals (see **Figure 5.5**).

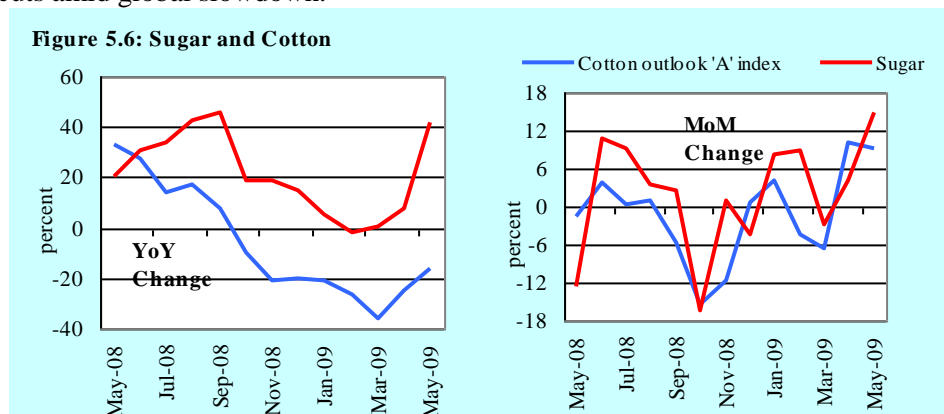
Moreover, scrap copper buyers in China, the world's biggest user of the metal, have doubled their offers, signaling deterioration in supply and putting a floor under prices on the London Metal Exchange. Experts believe that worst is over for raw materials. It is believed that the prices of base metals have seen the bottom of price cycle.

Tin prices has increased the most in May 2009; tin remained the top mover commodity during the month as it increased by 17.3 percent during the month on MoM basis. Prices of tin rose to the highest level since November 2008 after strong gains on the London Metal Exchange and buying from Europe and Japan.



Cotton prices rose by 9.1 percent in May 2009 on MoM basis, (see

**Figure 5.6)** as the USDA said that US farmers will plant 8.8 million acres of cotton this year, as against 9.5 million acres in 2008. USDA further reported that stockpiles of the white fiber may fall to 5.6 million bales from an estimated 6.8 million bales at the end of July 2009. Moreover cotton plantation in Brazil is expected to decrease by 21 percent because of lower prices due to consumption cuts amid global slowdown.

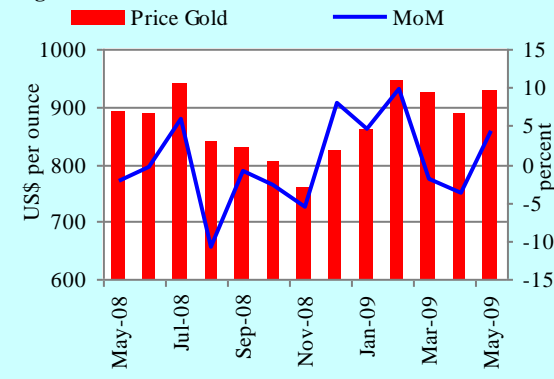
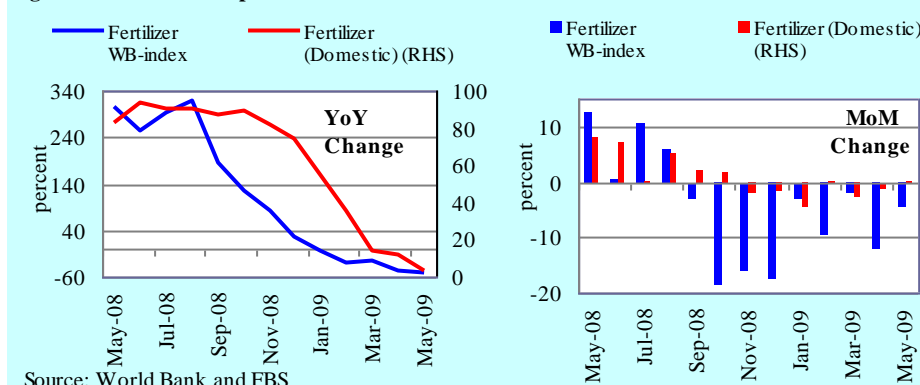


Sugar prices rose 5.1 percent in May 2009 on MoM basis. Sugar prices reached the highest level since August 2006 on forecasts for a global production deficit. The International Sugar Organization had reported that global demand may exceed production by as much as 7.8 million metric tons in 2009-10. Another factor behind price hike was news about drop in output in India, the world's second largest producer to produce 14.7 million metric tons down from a February 2009 forecast of 17 million tons<sup>5</sup>.

<sup>5</sup> Indian Sugar Mills Association



Gold prices increased during May 2009 on MoM basis after a sharp cut in key interest rate by the European Central Bank (ECB) to a record low 1 percent (see **Figure 5.7**). ECB also said that it will offer banks longer-term loans to stem the region's worst recession. After having cut in key rate, the Bank of England, US Federal Reserve and Bank of Japan started buying bonds, essentially printing money to reflate their economies in a policy known as quantitative easing.

**Figure 5.7: Gold****Figure 5.8 : Fertilizer prices**

Source: World Bank and FBS

Fertilizer prices in the international markets remained on decreasing path mainly due to lower commodity crop prices, and poorer prospects for profitability in 2009 that kept producers out of fertilizers buying market. However fertilizer prices in the domestic market increased during May 2009 due to increasing demand for up coming Kharif crop. According to the industry data total demand for the Kharif season is 3 million tons, while the local urea production would be at 2.6 million tons leaving a gap of 0.4 million tons <sup>6</sup>(see **Figure 5.8**).

<sup>6</sup> Ministry of Industries and Production, Pakistan

## Annexure A

Table A1: CPI Inflation by Groups							
	Weights	MoM change			YoY change		
		May-08	Apr-09	May-09	May-08	Apr-09	May-09
<b>I. Food Group</b>	<b>40.3</b>	<b>4.2</b>	<b>2.0</b>	<b>-0.2</b>	<b>28.5</b>	<b>17.0</b>	<b>12.1</b>
<b>II. Non-Food Group</b>	<b>59.7</b>	<b>1.4</b>	<b>0.9</b>	<b>0.6</b>	<b>12.5</b>	<b>17.3</b>	<b>16.3</b>
Apparel, textile, etc.	6.1	1.1	0.7	0.4	9.4	12.3	11.5
House rent	23.4	1.2	1.3	1.2	12.0	18.9	18.9
Fuel & lighting	7.3	0.7	0.0	-0.1	9.5	26.7	25.7
Household furniture & equipment	3.3	1.5	0.3	0.5	9.8	12.6	11.5
Transport & communication	7.3	1.0	0.1	-0.6	19.1	8.6	6.8
Recreation & entertainment	0.8	8.9	0.1	0.1	9.7	13.9	4.7
Education	3.5	3.2	6.2	1.4	7.9	23.0	20.9
Cleaning, laundry, etc.	5.9	1.2	0.0	0.5	16.6	16.0	15.2
Medicare	2.1	6.7	0.1	0.2	14.1	13.4	6.5
<b>Headline</b>	<b>100</b>	<b>2.7</b>	<b>1.4</b>	<b>0.2</b>	<b>19.3</b>	<b>17.2</b>	<b>14.4</b>

Table A2: Distribution of Price Changes of CPI Basket (YoY)											
Groups	% Changes		Total Number of Items	No. of Items in each Inflation Range							
				Decrease or no change		Subdued increase		Moderate increase		Double digit increase	
			(0 % or less)		(0 to 5%)		(5 to 10%)		(over 10%)		
	May-08	May-09	May-09	May-08	May-09	May-08	May-09	May-08	May-09	May-08	May-09
I. Food Group	28.5	12.1	110	14	17	5	11	15	14	76	68
II. Non-Food Group	12.5	16.3	250	47	9	35	42	61	45	107	152
Apparel, textile, etc.	9.4	11.5	42	4	1	7		19	17	12	23
House rent	12.0	18.9	1	0		0		0		1	1
Fuel & lighting	9.5	25.7	15	1	2	0		9	1	5	11
Household furniture & equipt	9.8	11.5	44	0		5	1	11	12	28	31
Transport & communication	19.1	6.8	43	10	1	0	5	3	3	30	34
Recreation & entertainment	9.7	4.7	16	3	0	6	12	1	1	6	3
Education	7.9	20.9	24	8	2	5	4	4	0	7	18
Cleaning, laundry, etc.	16.6	15.2	36	3	1	7	3	13	9	13	23
Medicines	14.1	6.5	29	18	2	5	17	1	2	5	8
Overall	19.3	14.4	360								
Note: Prices of 14 seasonal items were not reported during the month.											

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

**Table A3: Top Ten Contribution to YoY CPI Inflation in May 2009**

Items		Weights	YoY change		Weighted Contribution
			May-08	May-09	
A. Ranked by Weighted Contribution					
1	House Rent Index	23.43	12.05	18.91	28.80
2	Wheat Flour	5.11	72.26	19.53	9.5
3	Milk Fresh	6.66	21.36	15.85	8.19
4	Electricity	4.37	6.44	25.58	5.72
5	Natural Gas	2.05	6.81	27.97	5.05
6	Sugar	1.95	-7.97	61.68	4.87
7	Meat	2.70	7.45	17.68	4.46
8	Transport Fare/Charges	2.12	21.32	21.41	3.80
9	Vegetables	1.77	-2.24	35.58	3.76
10	Readymade Food	1.68	25.10	17.96	2.35
Total		51.84			76.53
B. Ranked by Percentage Change					
1	Gur	0.07	-11.55	78.98	0.28
2	Sugar	1.95	-7.97	61.68	4.87
3	Onions	0.65	17.35	60.56	2.21
4	Text Books	0.69	2.64	50.31	1.82
5	Condiments	0.34	40.83	48.32	1.08
6	Honey	0.04	6.91	35.76	0.07
7	Vegetables	1.77	-2.24	35.58	3.76
8	Match Box	0.13	47.96	35.17	0.27
9	Tea	1.26	8.07	34.91	2.10
10	Train Fare	0.15	11.66	33.40	0.39
Total		7.04			16.83
C. Ranked by Weights					
1	House Rent Index	23.43	12.05	18.91	28.80
2	Milk Fresh	6.66	21.36	15.85	8.19
3	Wheat Flour	5.11	72.26	19.53	9.53
4	Electricity	4.37	6.44	25.58	5.72
5	Bakery & Confectionary	2.98	11.05	11.13	1.74
6	Meat	2.70	7.45	17.68	4.46
7	Vegetable Ghee	2.67	53.70	-14.37	-4.13
8	Tution Fees	2.36	8.30	13.53	1.99
9	Transport Fare/Charges	2.12	21.32	21.41	3.80
10	Natural Gas	2.05	6.81	27.97	5.05
Total		54.45			65.15

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 14.4 percent in May 2009.

Table A4: Distribution of Price Changes (YoY)- Selected CPI Items, May 2009				
Groups	Decrease or no change	Subdued increase (upto 5%)	Moderate increase (5 to 10%)	Increase of over 10%
<b>Food Group</b>	Vegetable Ghee (Loose), Vegetable Ghee Tin, Pulse Moong (Washed) Cooking Oil (Dalda) Apple, Rice Basmati Broken, Pulse Gram Bananas, Rice Basmati 385/386	Toffee (Hilal) Potatoes, Tomatoes Cold Drink (Standard Siz) Garlic, Biscuits-Packed Fruit Juice Tetra Pack Cardamom Large Loose Aloo Bukhara	Bread Tandoori St. Size, Eggs Farm Ginger, Gram Whole Yellow, Ice, Rooh Afza, Squash-Mitchelles, Pepper Black National Milk Powder Loose/Packed	Milk Fresh, Wheat Flour Bag, Sugar Refined, Beef With Bone, Wheat Flour Fine/Superior. Mutton, Chicken Onion, Tea Loose Kenya 250G
<b>Apparel &amp; Textile</b>	Gents Sandal Bata	Gents Shoe, Art 1109 Service	Lawn Av.Qlty. Long Cloth Av.Qlty. Shirting Av.Qlty.	Ladies Sandal Bata Tailoring Shirt Ladies Spoung Chappal Bata
<b>House Rent Index</b>				House Rent Index
<b>Fuel &amp; Lighting</b>	Kerosene Oil Firewood Whole Match Box Small	--	Bulb Philips 100-Watts	Tube Light Philips 40 Watts, Elect.Charges Upto 50 Units, Gas Chrg 3.3719 - 6.7438 Mm, Gas Chrg 6.7438-10.1157Mmb
<b>Household Furniture &amp; Equipment</b>	--	Carpet Plain Av. Qlty	Blanket (90" X 54") S.Steel Deghchi Medium Size Household Servant Female P/T	Elect. Iron Philips Sofaset Wooden With Foam Sea, Water Cooler 9/10 Ltr.Plasti
<b>Transport &amp; Communication.</b>	Petrol Super Plateform Ticket Postal Envelope Domestic, Aerogram For Saudi Arabia	Telephone Charges Local Call	Tel Charges Out Side City	Train Fare Eco. > 500 Km, Car Service Charges, Cng Filling Charges, Train Fare A/C Slp.101-500Km
<b>Recreation &amp; Entertainment</b>	Daily "Dawn" Daily "Jang"	Daily "Nawa-E-Waqt" Weekly "Akhbar-E-Jahan", Weekly "Mag"	Vid. Cassette Blk. Tdk/Sony, Video Game Sega 16 Byte	Cinema A/C. Highest Class, Radio With C.Player National Cinema Non-A/C High Class
<b>Education</b>	Com. C.D. Govt. University Fee Msc. Govt. College Fee Ist. Year	Govt. College Fee 4 <sup>th</sup> Year, Govt. Engg. Coll. Fee I Year, Comp. With Printer & Speaker	--	School Fee 2 <sup>nd</sup> year Eng.Med., School Fee Primary Eng. Med., Exercise.Book Lined 80/100 P
<b>Cleaning &amp; Laundry</b>	Silver Tezabi 24 Ct Toothpaste Macleans 70 Grm, Toothpowder Dentonic 90 Grm	Lipstick S.Miss/Medora Talc Powder Vice, Roay.B.Cat, Beauty Porl Hair Styl Charge	Toilet Paper Roll (R.Petel), Wrist Watch Ladies Citizen, Blade Treet Ordinary 10'S Wrist Watch Gents Citizen	Haircut Charges For Men, Washing Soap Nyl(135-160Gms) Nail Polish, S.Miss /Medora, Toothbrush Sheild A/Plauque
<b>Medicare</b>	Ventolin Tab. 2Mg. Entox Tab. Disprin Tab.	Jouhar Joshanda Daonil Tab. 5 Mg. O.R.S. (Nimcol)	Septran Tablets Flagyl Tab. 200 Mg. Brufen Tabs 200-Mg.	Doctor (MBBS) Clinic Fee, Thermometer China Cac. 1000 Tab

Table A5: City-wise Inflation by Income Groups, May 2009

		Upto Rs:3000						Rs 3001-5000					
		General		Food		Non-Food		General		Food		Non-Food	
		MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY
1	Lahore	0.7	13.0	0.9	12.1	0.5	13.8	0.9	13.0	1.3	10.6	0.6	15.1
2	Faisalabad	2.5	15.1	4.3	14.3	1.0	15.9	2.6	15.5	4.5	14.2	1.1	16.6
3	Rawalpindi	1.0	15.5	1.5	16.1	0.6	14.9	0.9	15.7	1.4	15.3	0.6	16.0
4	Multan	0.9	14.6	1.1	14.7	0.7	14.5	0.6	14.7	0.6	14.3	0.6	15.0
5	Gujranwala	0.6	10.5	0.8	8.8	0.4	11.8	0.6	11.4	0.9	8.8	0.4	13.6
6	Islamabad	0.7	13.5	0.9	11.7	0.5	14.9	0.9	13.6	1.3	11.8	0.6	15.0
7	Sargodha	0.4	13.3	0.1	13.1	0.7	13.5	0.7	13.6	0.7	12.9	0.8	14.2
8	Sialkot	0.2	13.3	-0.3	11.6	0.6	14.7	0.1	14.4	-0.6	11.4	0.7	16.9
9	Bahawalpur	2.1	12.4	3.2	12.8	1.2	12.0	1.8	12.8	2.8	12.2	1.1	13.3
10	Karachi	0.1	12.0	-0.3	10.6	0.4	13.1	-0.4	12.2	-1.3	9.5	0.4	14.4
11	Hyderabad	-0.2	15.3	-1.1	15.2	0.5	15.3	-0.3	14.8	-1.3	14.0	0.4	15.4
12	Sukkur	0.2	16.0	-0.4	15.2	0.7	16.6	-0.2	14.1	-1.1	12.5	0.5	15.5
13	Larkana	-0.7	14.0	-2.0	12.7	0.3	15.0	-1.1	12.8	-2.4	10.5	-0.1	14.7
14	Peshawar	0.7	13.2	0.7	11.9	0.8	14.2	0.5	12.9	0.3	10.6	0.7	14.8
15	Bannu	-0.1	11.5	-0.3	9.8	0.1	12.9	0.0	11.9	-0.2	9.7	0.1	13.8
16	Quetta	-0.9	15.0	-1.9	15.1	0.0	14.8	-0.6	10.4	-1.5	6.8	0.2	13.6
17	Khuzdar	0.9	9.4	1.2	7.6	0.7	10.9	1.1	11.8	1.6	10.3	0.8	13.0
		Rs 5001-12000						above Rs 12000					
		General		Food		Non-Food		General		Food		Non-Food	
		MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY
1	Lahore	0.8	13.7	1.2	10.5	0.5	16.6	0.4	12.6	0.4	10.4	0.4	14.6
2	Faisalabad	2.6	15.8	4.7	13.8	0.9	17.5	1.7	14.5	3.5	12.8	0.2	16.1
3	Rawalpindi	0.8	16.2	1.1	14.4	0.5	17.6	0.4	13.9	0.5	12.8	0.2	14.8
4	Multan	0.6	15.6	0.6	14.7	0.5	16.3	0.1	13.9	-0.3	13.6	0.5	14.2
5	Gujranwala	0.4	12.2	0.4	8.6	0.4	15.2	-0.2	11.7	-0.9	8.4	0.4	14.5
6	Islamabad	0.7	14.3	0.8	10.8	0.5	17.2	0.2	12.6	-0.2	9.5	0.5	15.1
7	Sargodha	0.5	14.1	0.3	12.2	0.7	15.8	-0.3	11.8	-1.1	9.3	0.4	14.0
8	Sialkot	-0.2	14.8	-1.3	10.8	0.7	18.3	-0.6	14.4	-2.4	10.5	1.0	18.0
9	Bahawalpur	0.8	13.2	0.9	11.4	0.7	14.8	-0.6	11.9	-2.0	9.3	0.7	14.1
10	Karachi	-0.6	13.1	-1.8	9.7	0.4	15.9	-0.4	12.8	-2.0	9.3	0.8	15.6
11	Hyderabad	-0.2	15.6	-1.2	13.8	0.6	17.0	-0.5	14.1	-2.0	11.6	0.8	16.2
12	Sukkur	-0.2	14.6	-1.1	11.7	0.6	17.0	-0.3	13.8	-1.4	10.3	0.6	16.7
13	Larkana	-1.2	13.5	-2.7	10.6	0.0	15.9	-1.6	12.0	-3.4	7.9	0.0	15.6
14	Peshawar	0.3	14.3	-0.1	10.5	0.7	17.6	0.3	14.1	-0.3	11.3	0.8	16.5
15	Bannu	-0.1	12.3	-0.3	9.4	0.1	14.6	-0.8	11.9	-1.9	8.2	0.1	15.1
16	Quetta	-0.3	12.8	-1.3	8.0	0.5	17.1	0.0	12.4	-0.7	9.1	0.6	15.4
17	Khuzdar	1.1	13.3	1.5	11.4	0.7	15.0	0.8	15.5	0.8	14.4	0.8	16.4

Table A6 : Income Group-wise Inflation						percent
	MoM			YoY		
	May-08	Apr-09	May-09	May-08	Apr-09	May-09
<u>Up to Rs. 3000</u>						
General	3.5	1.6	0.6	23.2	17.7	14.4
Food	5.0	2.2	0.6	31.5	18.5	13.5
Non-food	2.3	1.0	0.6	17.1	17.0	15.1
<u>Rs. 3001-5000</u>						
General	3.4	1.5	0.5	22.6	17.8	14.5
Food	4.9	2.1	0.4	31.4	17.8	12.7
Non-food	2.2	1.0	0.6	16.3	17.8	16.0
<u>Rs. 5000-12000</u>						
General	3.0	1.4	0.3	20.4	18.0	15.0
Food	4.4	2.0	0.0	29.5	17.3	12.3
Non-food	1.8	1.0	0.6	13.7	18.6	17.2
<u>Above Rs. 12000</u>						
General	2.2	1.4	0.0	17.4	16.2	13.6
Food	3.5	2.0	-0.8	26.1	16.3	11.5
Non-food	1.1	0.8	0.7	10.8	16.0	15.5
<u>All income groups</u>						
General	2.7	1.4	0.2	19.3	17.2	14.4
Food	4.2	2.0	-0.2	28.5	17.0	12.1
Non-food	1.4	0.9	0.6	12.5	17.3	16.3

Table A7: Distribution of Price Change (YoY) - WPI Items: May 2009

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

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

S.No	Items	Unit	Price May 09	Percentage change	
				YoY	Monthly
1	Wheat	Kg.	24.2	24.1	-2.7
2	Wheat flour average qlt.	Kg.	27.0	18.5	1.7
3	Rice basmti.broken	Kg.	42.0	-20.3	-1
4	Rice irri-6	Kg.	34.6	-27.9	-1.8
5	Masur pulse washed	Kg.	115.0	10	-0.2
6	Moong pulse washed	Kg.	47.4	-15.6	3.4
7	Mash pulse washed	Kg.	84.0	15.1	5.4
8	Gram pulse washed	Kg.	48.5	-18.9	-3.7
9	Beef	Kg.	154.1	20	1.8
10	Mutton	Kg.	278.6	13.7	1.3
11	Egg hen (farm)	Doz.	49.3	3.4	-14.5
12	Bread plain	Each	25.5	26.2	0
13	Sugar	Kg.	44.9	57.2	0.9
14	Gur	Kg.	55.9	80.6	11.4
15	Milk fresh	Litr	39.2	18.5	5
16	Milk powdered nido	400g	170.0	16.2	0
17	Curd	Kg.	46.0	17.5	4.4
18	Veg.ghee tin	2.5k	338.7	-9.4	3.5
19	Veg.ghee loose	Kg.	110.2	-15.9	8.8
20	Mustard oil	Kg.	133.6	-7.2	-0.3
21	Cooking oil	2.5l	354.9	-7.5	1
22	Potatoes	Kg.	16.3	3.1	22.9
23	Onions	Kg.	22.5	49	-19.3
24	Tomatoes	Kg.	18.1	9.1	-43.2
25	Bananas	Doz.	41.9	-16.3	6
26	Salt powdered	Kg.	6.5	20.8	1.4
27	Red chillies(powd)	Kg.	129.4	-38.3	-0.5
28	Garlic	Kg.	36.0	-4.1	-3.7
29	Tea packet	250g	100.0	38.9	0
30	Tea (prepared)	Cup	8.8	18.8	0.8
31	Cooked beef plate	Each	42.1	16.8	0.4
32	Cooked dal plate	Each	26.6	14.3	0.9
33	Cigarettes k-2	10's	9.5	13.9	0
34	Coarse latha	Mtr.	44.7	6.9	-0.4
35	Lawn (avg.+s.qlty)	Mtr.	94.3	5.7	1.5
36	Voil printed	Mtr.	47.5	9.1	0.6
37	Shirting	Mtr.	79.6	9	0.1
38	Sandel gents bata	Pair	499.0	0	0
39	Sandel ladies bata	Pair	379.0	26.8	0
40	Chappal spng. Bata	Pair	129.0	18.3	0
41	Kerosene	Litr	63.4	27.4	-0.2
42	Firewood	40kg	274.1	15.8	0.4
43	Elec. Bulb 60-wats	Each	17.5	34.3	5.7
44	Match box	Each	1.0	0	0
45	Washing soap	Cake	12.6	13	0.2
46	Bath soap lifebuoy	Cake	22.0	12.8	0
47	Chicken (farm)	Kg.	104.4	19.1	-5.8
48	Gas chrg. All clb. Comb	D.mmbt	292.1	22	0
49	L.P.G.(cylinder 11kg.)	Each	728.4	16.3	-4.5
50	Elec.chrg.all slabs comb	Bd. Unit	6.8	23.1	0.1
51	Petrol	Litr	58.0	-16.1	-0.6
52	Diesel	Litr	57.4	14.1	-0.6
53	Telephone local	Call	2.4	4.8	0
<b>Maximum</b>				<b>80.6</b>	<b>22.9</b>
<b>Median</b>				<b>13.9</b>	<b>0.0</b>
<b>Minimum</b>				<b>-38.3</b>	<b>-43.2</b>



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

Item and Specification	Weights	Index		
		May-08	Apr-09	May-09
<b>GENERAL</b>	<b>100.0008</b>	<b>163.38</b>	<b>197.28</b>	<b>197.74</b>
<b>FOOD &amp; BEVERAGES.</b>	<b>40.3414</b>	<b>180.52</b>	<b>220.46</b>	<b>220.04</b>
1 WHEAT	0.4830	199.63	289.48	286.44
2 WHEAT FLOUR	5.1122	177.72	273.53	283.78
3 MAIDA	0.1059	196.98	272.52	275.07
4 BESAN	0.1320	153.79	192.80	188.33
5 RICE	1.3369	237.15	276.26	273.67
6 PULSE MASOOR	0.2214	217.57	320.60	322.04
7 PULSE MOONG	0.2230	173.41	155.11	159.69
8 PULSE MASH	0.2017	156.57	170.45	183.39
9 PULSE GRAM	0.4272	151.12	177.55	171.82
10 GRAM WHOLE	0.1491	144.87	174.38	173.24
11 MUSTARD OIL	0.0456	253.51	245.61	244.30
12 COOKING OIL	0.6858	232.72	220.22	220.56
13 VEGETABLE GHEE	2.6672	264.09	217.77	229.43
14 SUGAR	1.9467	92.51	162.73	163.09
15 GUR	0.0735	115.24	192.93	214.29
16 TEA	1.2559	117.14	160.44	160.38
17 MILK FRESH	6.6615	181.13	216.06	223.60
18 MILK POWDER	0.1105	177.10	204.80	204.34
19 MILK PRODUCTS	0.5607	164.87	200.09	206.15
20 HONEY	0.0358	134.92	187.71	187.71
21 CEREALS	0.0878	168.56	231.21	233.14
22 JAM,TOMATO,PICKLES & VINEGAR	0.2472	143.37	168.97	170.59
23 BEVERAGES	0.7286	144.36	166.25	170.61
24 CONDIMENTS	0.3392	161.85	241.77	242.07
25 SPICES	0.6008	168.39	211.17	204.48
26 DRY FRUIT	0.2760	251.05	315.76	319.09
27 BAKERY & CONFECTIONARY	2.9837	128.33	144.55	145.22
28 CIGARETTES	0.9527	158.72	187.41	187.28
29 BETEL LEAVES & NUTS	0.1851	153.11	171.10	172.18
30 READYMADE FOOD	1.6833	182.89	226.64	228.47
31 SWEETMEAT & NIMCO	0.3846	187.36	229.62	230.60
32 FISH	0.2703	152.98	186.24	183.54
33 MEAT	2.6981	226.78	269.04	273.61
34 CHICKEN FARM	0.9158	174.04	217.23	201.73
35 EGGS	0.4119	150.74	227.34	188.10
36 POTATOES	0.6032	118.43	138.63	171.91
37 ONIONS	0.6463	99.91	285.98	225.07
38 TOMATOES	0.5059	217.41	253.21	104.30
39 VEGETABLES	1.7695	245.38	218.01	201.27
40 FRESH FRUITS	1.6158	187.19	242.57	232.87
<b>APPAREL, TEXTILE &amp; FOOTWEAR.</b>	<b>6.0977</b>	<b>135.89</b>	<b>155.53</b>	<b>156.09</b>
41 COTTON CLOTH	1.6197	139.05	158.02	158.86
42 SILK,LINEN,WOOLEN/CLOTH	0.5766	136.84	153.87	154.06
43 TAILORING CHARGES	0.8636	138.63	162.23	163.88
44 HOSIERY	0.1528	144.44	167.41	167.80
45 READYMADE GARMENTS	1.2038	128.15	142.23	142.56
46 WOOLEN READYMADE GARMENTS	0.1485	155.82	177.71	177.85
47 FOOTWEAR	1.5327	133.93	156.84	156.87
<b>HOUSE RENT.</b>	<b>23.4298</b>	<b>158.04</b>	<b>189.92</b>	<b>192.23</b>
48 HOUSE RENT INDEX (Combined)	23.4298	158.04	189.92	192.23

(continued)

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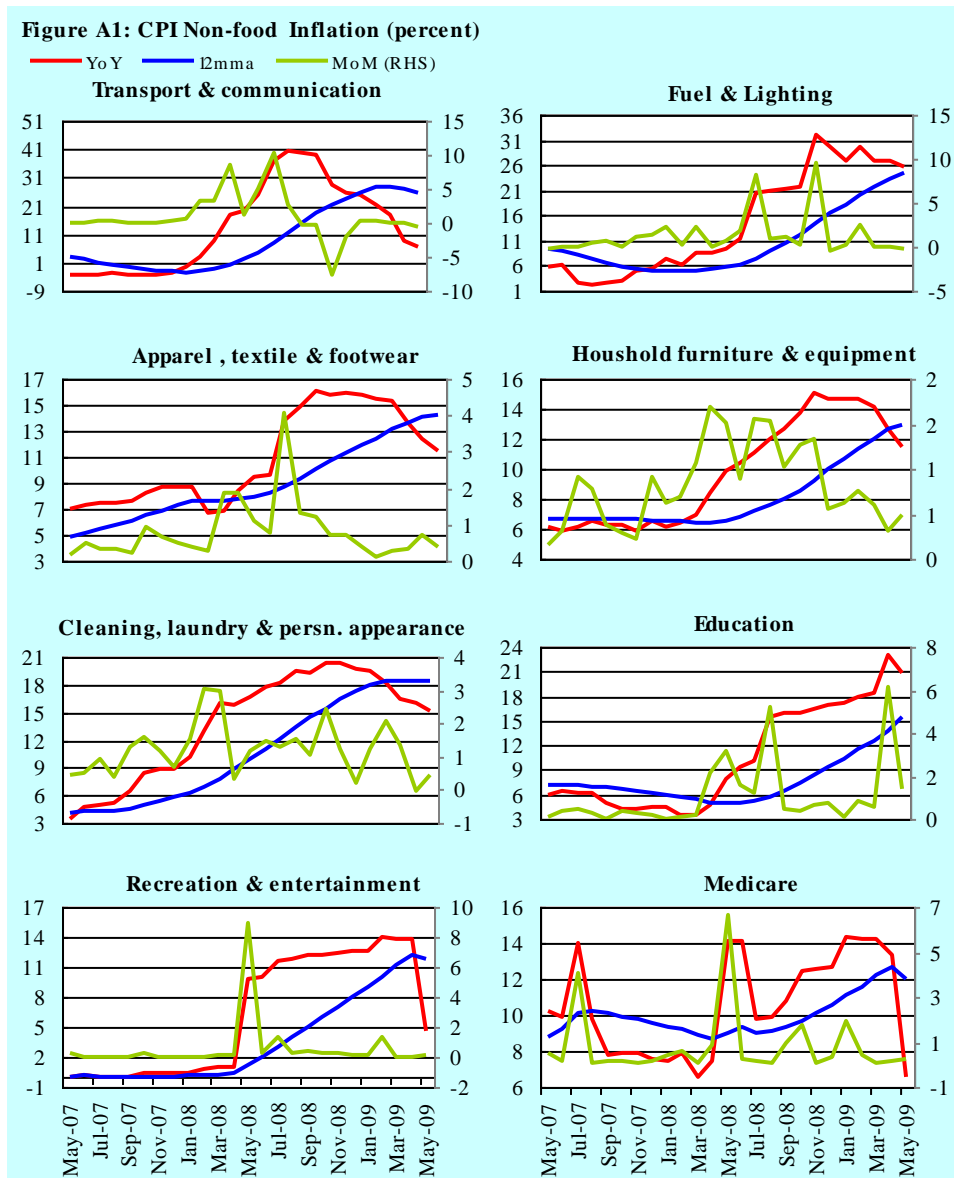
**Table A9: Consumer Price Index Numbers by Major Groups and Selected Commodities**

Item and Specification	Weights	Index		
		May-08	Apr-09	May-09
<b>FUEL AND LIGHTING.</b>	<b>7.2912</b>	<b>164.25</b>	<b>208.09</b>	<b>207.85</b>
49 KEROSENE	0.1366	291.58	388.21	386.75
50 FIREWOOD	0.4778	257.53	307.35	309.17
51 MATCH BOX	0.1301	100.00	200.00	200.00
52 BULB & TUBE	0.1311	93.52	118.54	118.54
53 ELECTRICITY	4.3698	127.23	159.77	159.77
54 NATURAL GAS	2.0458	221.63	282.35	281.16
<b>H.HOLD.FURNITURE &amp; EQUIPMENT ETC.</b>	<b>3.2862</b>	<b>142.91</b>	<b>163.68</b>	<b>164.49</b>
55 UTENSILS	0.3690	129.40	150.79	151.79
56 PLASTIC PRODUCTS	0.1055	154.31	192.51	193.27
57 SUITCASE	0.0470	132.77	157.23	157.23
58 HOUSE HOLD EQUIPMENTS	0.0953	129.07	149.84	150.47
59 FURNITURE (Ready Made)	0.3054	147.61	175.18	175.80
60 FURNISHING	0.6362	138.49	155.97	156.85
61 ELECT.IRON FANS & WASHING MACHINE	0.1889	130.81	165.59	165.96
62 SEWING MACHINE,CLOCK AND NEEDLES	0.1270	121.26	141.81	141.89
63 REFRIGERATOR & AIRCONDITIONER	0.1756	104.56	130.24	131.26
64 MARRIAGE HALL	0.0445	161.57	190.34	192.36
65 HOUSE HOLD SERVANT	1.1918	157.92	173.60	174.49
<b>TRANSPORT &amp; COMMUNICATION.</b>	<b>7.3222</b>	<b>158.04</b>	<b>186.43</b>	<b>185.24</b>
66 PETROL	1.7253	205.51	189.71	185.50
67 DIESEL	0.2070	279.23	362.66	354.40
68 CNG. FILLING CHARGES	0.1649	160.76	205.46	205.28
69 SERVICE CHARGES	0.3835	141.12	166.96	168.16
70 VEHICLES	0.2596	104.24	136.09	134.71
71 TYRE & TUBE	0.2831	130.45	159.73	159.03
72 TRANSPORT FARE/CHARGES	2.1236	178.80	252.54	252.73
73 TRAIN FARE	0.1514	170.01	253.24	253.24
74 AIR FARE	0.0983	280.47	342.93	342.93
75 COMMUNICATION	1.9255	86.84	91.36	91.36
<b>RECREATION &amp; ENTERTAINMENT.</b>	<b>0.8259</b>	<b>106.51</b>	<b>121.37</b>	<b>121.53</b>
76 RECREATION	0.3399	101.88	131.89	131.89
77 ENTERTAINMENT	0.4860	109.71	114.01	114.28
<b>EDUCATION.</b>	<b>3.4548</b>	<b>139.85</b>	<b>175.79</b>	<b>178.21</b>
78 TUTION FEES	2.3629	145.58	175.49	175.49
79 STATIONERY	0.3500	133.74	173.54	175.60
80 TEXT BOOKS	0.6894	127.75	184.93	196.01
81 COMPUTER & ALLIED PRODUCTS	0.0525	81.52	84.38	84.38
<b>CLEANING LAUNDRY &amp; PER.APPEARANCE.</b>	<b>5.8788</b>	<b>145.69</b>	<b>169.58</b>	<b>170.35</b>
82 WASHING SOAP & DETERGENT	1.5535	134.34	163.58	163.66
83 TOILET SOAP	0.7436	161.07	186.50	186.50
84 TOOTH PASTE	0.4036	110.33	113.80	113.97
85 SHAVING ARTICLES	0.3480	128.13	148.71	149.43
86 COSMETICS	1.4272	130.26	154.53	156.01
87 WATCHES	0.0552	128.99	138.95	138.95
88 JEWELLERY	0.3936	282.34	322.97	326.73
89 LAUNDRY CHARGES	0.2207	153.96	179.16	179.47
90 HAIR CUT & BEAUTY PARLOUR CHARGES	0.7334	137.37	152.13	152.74
<b>MEDICARE.</b>	<b>2.0728</b>	<b>131.46</b>	<b>150.28</b>	<b>150.63</b>
91 DRUGS & MEDICARES	1.0752	108.42	118.04	118.70
92 DOCTOR'S FEE	0.9976	156.29	185.03	185.03

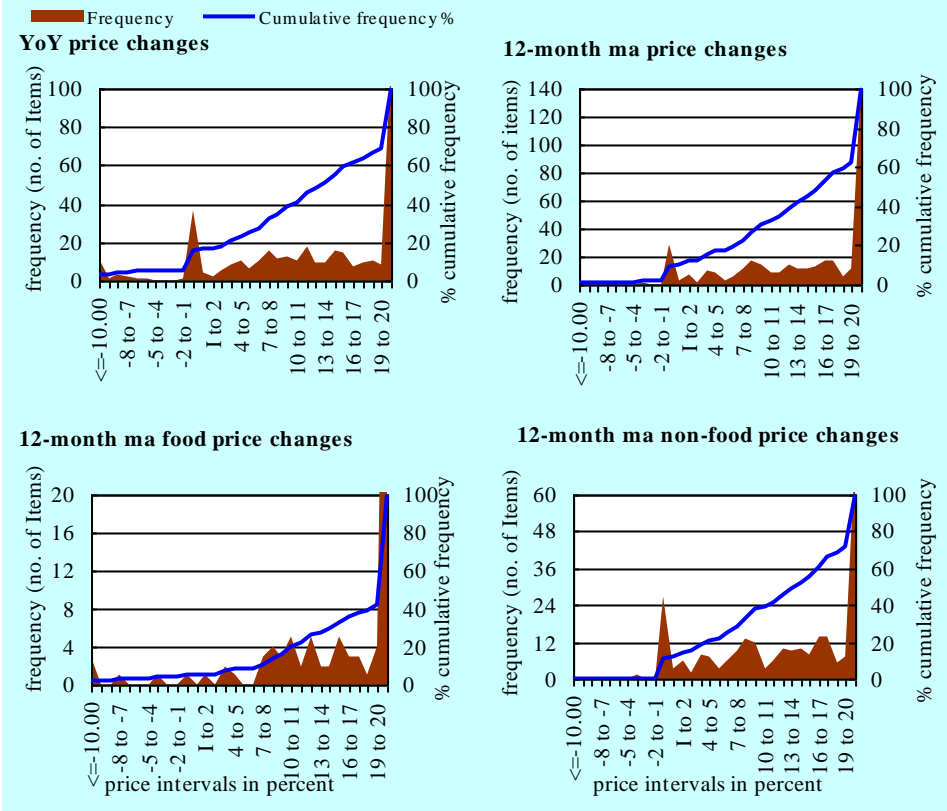
Table A10: Price Indices - Base 2000-01=100

Period	CPI			WPI			SPI *
	Overall	Food	Non-food	Overall	Food	Non-food	
2003-04	111.63	111.74	111.55	116.29	112.99	118.70	113.93
2004-05	121.98	125.69	119.47	124.14	125.03	123.50	126.52
2005-06	131.64	134.39	129.78	136.68	133.78	138.78	136.43
2006-07	141.87	148.21	137.59	146.18	145.67	146.53	149.29
2007-08	158.90	174.36	148.44	170.15	173.27	167.88	170.55
2007 May	144.94	152.77	139.65	149.87	150.86	149.15	151.74
Jun.	145.23	152.31	140.44	151.52	153.17	150.32	153.70
Jul.	146.70	154.58	141.37	154.10	155.72	152.92	155.42
Aug.	148.64	158.26	142.13	155.90	158.78	153.80	158.45
Sep.	151.80	164.83	142.99	158.42	163.56	154.68	161.67
Oct.	153.66	168.18	143.84	161.30	165.61	158.16	163.71
Nov.	153.87	167.22	144.84	163.93	167.14	161.59	163.89
Dec.	154.77	167.85	145.93	163.83	168.26	160.61	165.41
2008 Jan.	157.73	172.96	147.43	166.75	172.50	162.57	168.24
Feb.	158.50	172.16	149.26	168.81	172.40	166.20	166.94
Mar.	163.38	180.52	151.79	175.55	177.57	174.08	173.96
Apr.	168.34	188.37	154.80	183.09	184.07	182.38	183.29
May.	172.87	196.28	157.04	192.19	194.26	190.68	191.49
Jun.	176.50	201.12	159.85	197.92	199.39	196.85	194.10
Jul.	182.39	206.85	165.85	206.53	206.37	206.65	202.94
Aug.	186.29	212.21	168.76	211.60	211.91	211.37	208.85
Sep.	188.10	214.13	170.50	211.02	213.63	209.12	209.52
Oct.	192.08	221.44	172.23	207.08	219.58	197.98	213.37
Nov.	191.85	218.12	174.09	196.50	215.97	182.33	211.03
Dec.	190.90	214.71	174.80	192.62	210.77	179.41	207.99
2009 Jan.	190.09	210.33	176.40	192.91	208.80	181.35	204.02
Feb.	191.90	211.58	178.59	194.19	210.31	182.46	206.78
Mar.	194.53	216.13	179.92	195.00	212.16	182.51	208.40
Apr.	197.28	220.46	181.61	198.28	215.69	185.61	210.85
May.	197.74	220.04	182.66	201.29	217.50	189.49	212.62

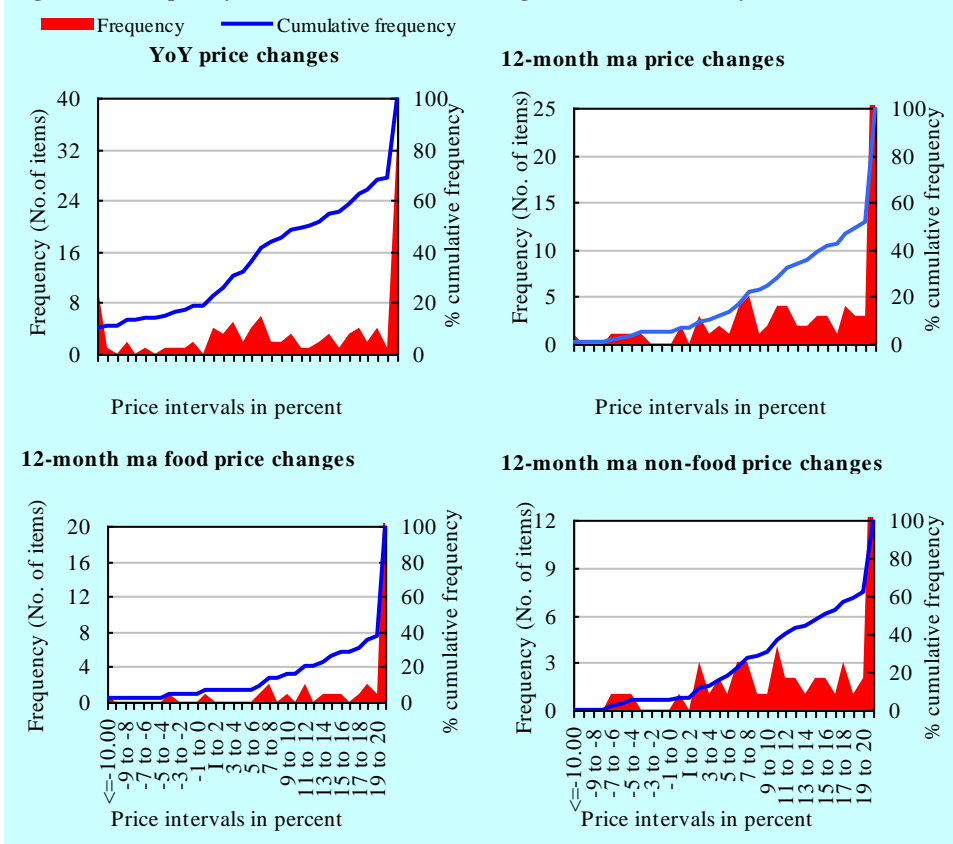
\*: all groups combined



**Figure A2: Frequency Distribution of Price Changes of CPI Items, May 2009**



**Figure A3: Frequency Distribution of Price Changes of WPI Items, May 2009**



## 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