

# **Inflation Monitor**

**August 2010**



**State Bank of Pakistan**

*Economic Analysis Department*

ISSN 1992-8327 (print)

ISSN 1992-8335 (online)

The analysis in this document is based on data provided by:

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

[http://www.sbp.org.pk/publications/Inflation\\_Monitor](http://www.sbp.org.pk/publications/Inflation_Monitor)

© 2010 State Bank of Pakistan

---

**Contents**

---

<b>1.</b>	<b>Overview</b>	<b>1</b>
<b>2.</b>	<b>Consumer Price Index</b>	<b>3</b>
	2.1 Food Inflation	4
	2.2 Non-food Inflation	5
	2.3 City-wise Inflation	7
	2.4 Income Group-wise Inflation	7
<b>3.</b>	<b>Wholesale Price Index</b>	<b>8</b>
<b>4.</b>	<b>Sensitive Price Indicator</b>	<b>11</b>
<b>5.</b>	<b>Global Commodity Prices</b>	<b>12</b>

**Annexure A:** **16**

Table A1:	CPI Inflation (YoY) by Groups	
Table A2:	Distribution of Price Changes of CPI Basket August 2010	
Table A3:	Top Ten Contributors to YoY CPI Inflation in August 2010 (YoY)	
Table A4:	Distribution of YoY Price Changes - Selected CPI Items August 2010	
Table A5:	City-wise CPI Inflation (YoY) by Income Groups August 2010	
Table A6:	City wise Inflation in CPI (YoY) August 2010	
Table A7:	Income Group-wise Inflation	
Table A8:	Distribution of Price Change (YoY)-WPI Items: August 2010	
Table A9:	SPI Item-wise Price Movements	
Table A10:	Consumer Price Index Numbers by Major Groups and Selected Commodities	
Table A11:	Wholesale Price Index Numbers by Major Groups and Selected Commodities for August 2010	
Table A12:	Price Indices-Base 2000-01=100	
Table A13:	International Commodity Prices/Indices	
Figure A1:	CPI Non-food Inflation	
Figure A2:	Frequency Distribution of Price Changes of CPI Items August 2010	
Figure A3:	Frequency Distribution of Price Changes of WPI Items August 2010	

**Annexure B: Technical Notes** **32**

## **Team**

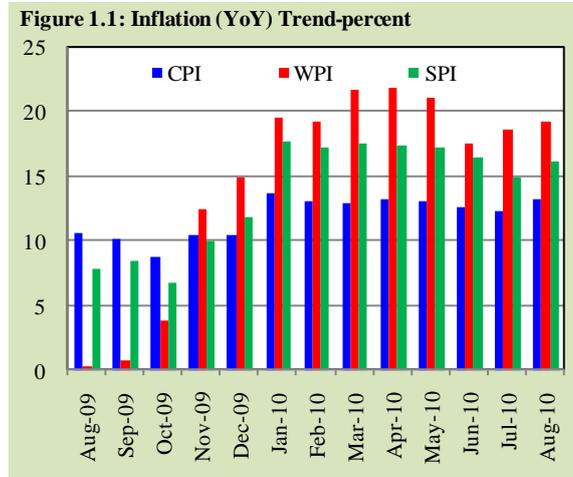
Moinuddin	<a href="mailto:moinuddin@sbp.org.pk">moinuddin@sbp.org.pk</a>
Imran Naveed Khan	<a href="mailto:imran.naveed@sbp.org.pk">imran.naveed@sbp.org.pk</a>
Waseem Fazal Ur Rehman	<a href="mailto:waseem.fazal@sbp.org.pk">waseem.fazal@sbp.org.pk</a>
Zahid Hussain	<a href="mailto:zahid.hussain@sbp.org.pk">zahid.hussain@sbp.org.pk</a>
Fatima Khaliq	<a href="mailto:fatima.khaliq@sbp.org.pk">fatima.khaliq@sbp.org.pk</a>

## **Editorial Assistance**

Umar Siddique	<a href="mailto:umar.siddique@sbp.org.pk">umar.siddique@sbp.org.pk</a>
---------------	--

**1. Overview**

Inflationary pressures remained strong in the economy, reflected by a rise in all price indices during August 2010 (**Figure 1.1**). Headline CPI inflation (YoY) rose to 13.2 percent in August 2010 compared with 12.3 percent in July 2010. WPI inflation YoY continued on its rising trend for the second consecutive month as against declining trend seen during April-June 2010 (see **Table 1.1**). Similarly, SPI inflation



YoY also bounced back in August 2010 after showing some ease since March 2010. The current resurgence in inflation is attributed to food inflation, as the impact of seasonal demand pressures was compounded by supply disruptions amid floods and rains. Moreover, supply shortages of sugar also put upward pressures on food inflation in August 2010 compared with the preceding month.

**Table 1.1: Inflation Trends**

	percent													
	CPI						Core Inflation							
	General		Food		Non-food		NFNE*		Trimmed		WPI		SPI**	
	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM
Aug-09	10.7	1.7	10.6	2.5	10.8	1.0	12.6	0.8	13.1	1.1	0.3	2.2	7.8	1.4
Sep-09	10.1	0.5	10.0	0.4	10.2	0.5	11.9	0.8	12.4	0.6	0.7	0.2	8.5	1.0
Oct-09	8.9	1.0	7.5	1.1	10.0	0.8	11.0	0.8	10.6	0.8	3.8	1.2	6.7	0.2
Nov-09	10.5	1.4	11.1	1.8	10.0	1.0	10.6	0.8	10.5	0.7	12.5	2.8	10.0	1.9
Dec-09	10.5	-0.5	10.9	-1.7	10.2	0.6	10.7	0.7	10.4	0.6	15.0	0.2	11.9	0.3
Jan-10	13.7	2.4	15.5	2.0	12.2	2.8	10.3	0.7	12.7	1.3	19.6	4.2	17.8	3.2
Feb-10	13.0	0.4	14.9	0.1	11.5	0.6	10.1	0.8	12.4	0.7	19.3	0.4	17.2	0.9
Mar-10	12.9	1.3	14.5	1.8	11.6	0.8	9.9	0.8	12.7	0.8	21.8	2.5	17.6	1.1
Apr-10	13.3	1.7	14.5	2.0	12.2	1.5	10.6	1.7	12.7	1.1	22.0	1.8	17.4	1.0
May-10	13.1	0.1	14.8	0.0	11.7	0.1	10.3	0.6	12.5	0.4	21.2	0.9	17.4	0.8
Jun-10	12.7	0.6	14.5	0.7	11.2	0.6	10.4	0.7	11.7	0.7	17.6	-0.6	16.5	0.4
Jul-10	12.3	1.2	12.8	1.5	12.0	1.0	10.3	0.5	12.0	0.7	18.7	1.7	14.9	1.8
Aug-10	13.2	2.5	15.6	5.1	11.2	0.3	9.8	0.4	12.5	0.7	19.2	2.6	16.2	2.6

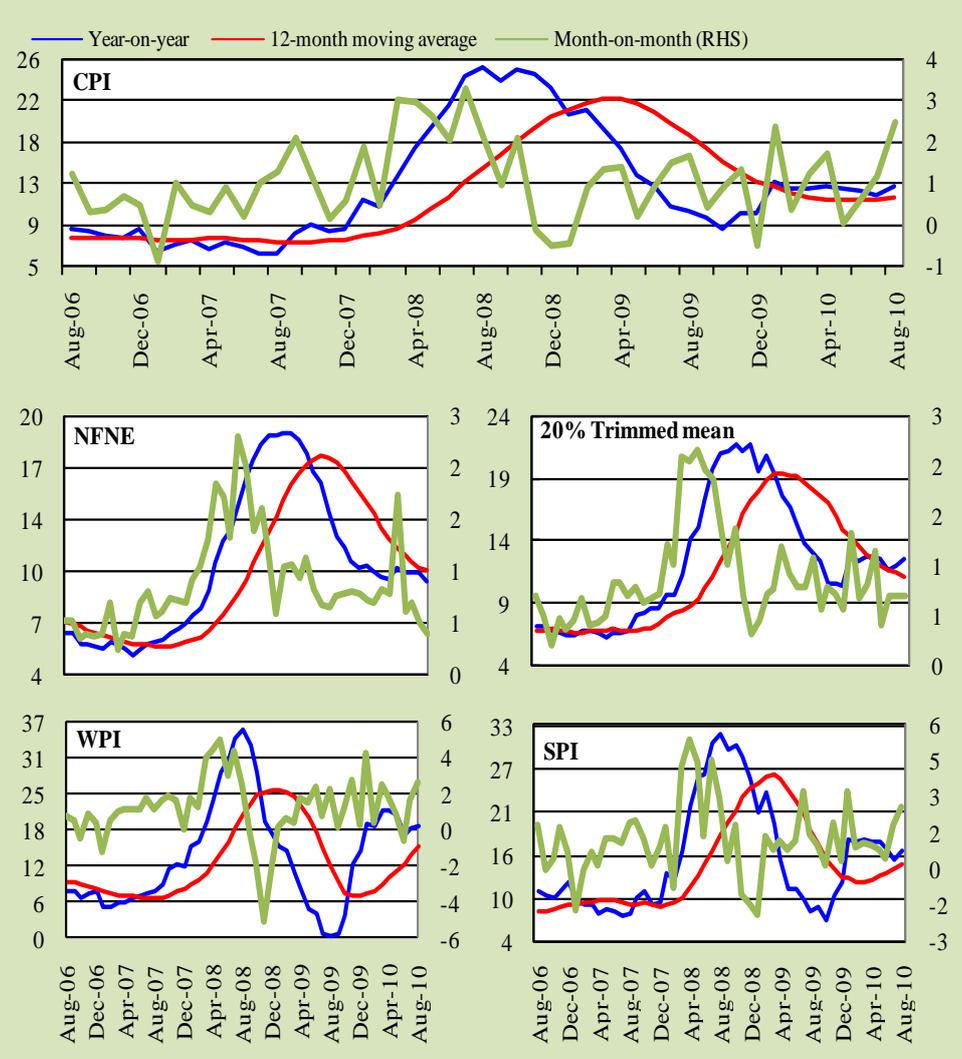
\* NFNE is Non-food non-energy inflation; \*\* SPI for all income groups combined.

Core inflation, measured by 20% trimmed mean also indicated strong inflationary pressures in the economy; it rose to 12.5 percent in August 2010 compared with 12.0 percent in the last month (**Figure 1.2**). In contrast, core inflation measured by excluding food and energy components from CPI (NFNE) declined to 9.8 percent YoY in August 2010 from 10.3 percent in the previous

month. This divergence implies that inflationary pressures are mainly stemming from food and energy.

Unlike domestic inflation, international commodity prices eased during August 2010 compared to July 2010 on YoY basis. This relative ease in commodity prices came mainly from non-food commodities such as metals and energy (includes crude oil, natural gas, and coal). However, prices of food commodities such as wheat, corn, barley, and beef observed a sharp rise.

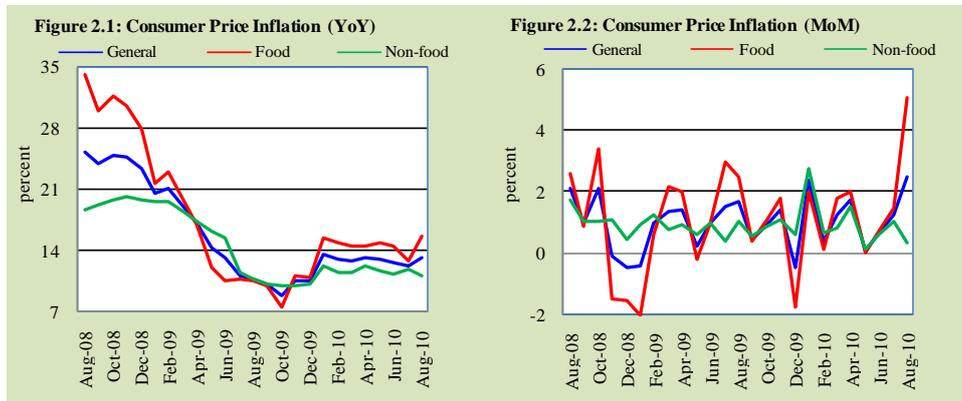
**Figure 1.2: Movements in Price Indices (percent change)**



## 2. Consumer Price Index

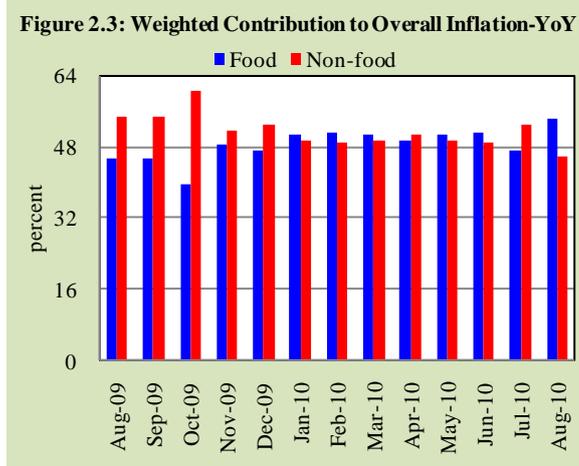
Headline CPI inflation (YoY) increased during August 2010 to 13.2 percent from 12.3 percent in July 2010. The same was 10.7 percent during August 2009. This rise came entirely from food inflation as non-food inflation eased during the month under review (see **Figure 2.1**).

Pre-Eid demand pressures and supply shortages due to heavy damages to crops and infrastructure from floods and extended monsoon rains, as well as, inadequate imports of sugar to meet the extra demand in Ramadan, fueled the food prices. A significant rise in perishable and other essential food items such as: potatoes, tomatoes, onions, fresh fruits, vegetables, sugar, fresh milk, and some pulses also contributed to the surge in inflation during the month.



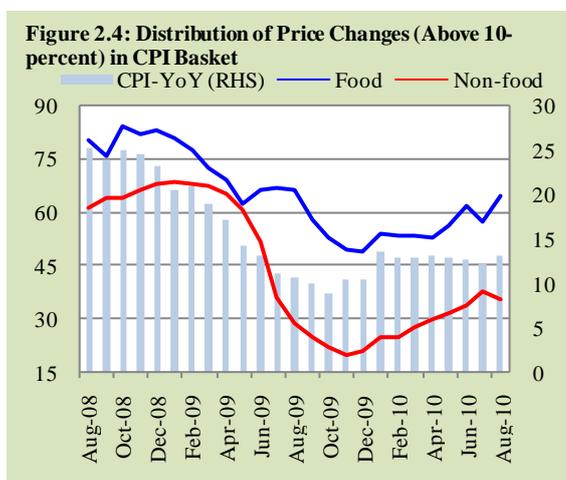
A similar trend was observed in inflation on month-on-month basis. CPI inflation (MoM) increased from 1.2 percent in July 2010 to 2.5 percent during August 2010 – the highest monthly rise since July 2008. Food inflation (MoM) jumped from 1.5 percent in July 2010 to 5.1 percent during August 2010 - the highest increase since July 1991.

Interestingly, a rise of 5.4 percent MoM in July 1991 was registered during the festival of Eid-ul-Adha. On the other hand, CPI non-food inflation declined from 1.0 percent in July 2010 to



0.3 percent during the review month (see **Figure 2.2**). Consequently, contribution of food inflation to overall inflation rose to 54.2 percent in August 2010 compared with 47.2 percent in the preceding month (see **Figure 2.3**).

Further, item-wise analysis shows that out of the reported 363 items, prices of 61 items witnessed decline or no change during August 2010. Another 50 items registered subdued inflation (between 0-5 percent), while 88 items witnessed price rise between 5-10 percent. The remaining 164 items showed price rise above 10.0 percent during August 2010, compared with 159 items in July 2010 (**Figure 2.4**).



### 2.1 Food Inflation

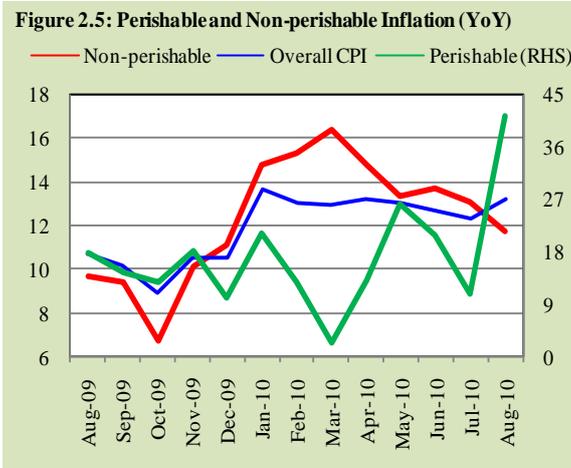
A significant rise of 15.6 percent was recorded in CPI food inflation YoY during August 2010, the highest since April 2009. Similarly, on MoM basis, food inflation witnessed a sharp jump, too. A strong Ramadan and pre-Eid demand, supply shortages of perishable items and some grains due to heavy rains, severe flood and lower availability were the main factors for surge in food inflation during August 2010.

Within CPI food group, 111 food products were reported during August 2010, the share of items having double-digit inflation or more than ten percent inflation (72 items) has increased from 57.7 percent in July 2010 to 64.9 percent during month under review (**Table 2.1**). The share of these items has been rising trend since

	0% or Less		> 0% and < 5%		> 5% and < 10%		> 10%	
	No. of Items	Weights	No. of Items	Weights	No. of Items	Weights	No. of Items	Weights
Aug-09	92	18.17	46	7.25	86	12.48	134	62.11
Jul-10	76	15.98	50	5.29	78	37.73	154	41.00
Aug-10	69	12.84	50	8.37	89	37.73	150	41.06

December 2010 (except July 2010), which shows strengthening inflationary pressures in food group.

It is interesting to note that the surge in CPI food inflation entirely came from a sharp jump in the prices of perishable food commodities, as the pace of rise in the prices of non-perishable commodities decelerated in August 2010 (**Figure 2.5**).

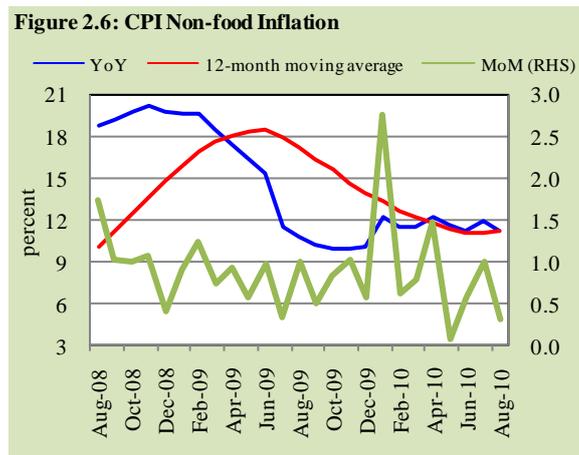


This significant increase came from the rise in the prices of potatoes, onions, tomatoes, vegetables, and fresh fruits during August 2010 compared

to the corresponding month of 2009. As far as the inflation in non-perishable items is concerned, declining trend continued during August 2010 in this subgroup which started in March 2010. And during the month, this ease mainly came from declining prices of rice, wheat and wheat products such as wheat flour and maida. It is, however, important to note that while prices of most of the perishable food commodities are likely to ease in months ahead, a reversal in the prices of grain is expected on the back of rising international prices as well as increasing transportation cost.

## 2.2 Non-food Inflation

CPI non-food inflation declined to 11.2 percent YoY during August 2010 from 12.0 percent a month earlier; however, it was still higher than 10.8 percent in August 2009. Similarly, on monthly basis, CPI non-food inflation was 0.3 percent during the review month, lower than 1.0 percent in the previous month (see **Figure 2.6**).



It is important to note that non-food inflation is moving in a narrow range since January 2010. The resilience in CPI non-food inflation is principally coming from upward adjustment in administrative prices of diesel, electricity, and gas in

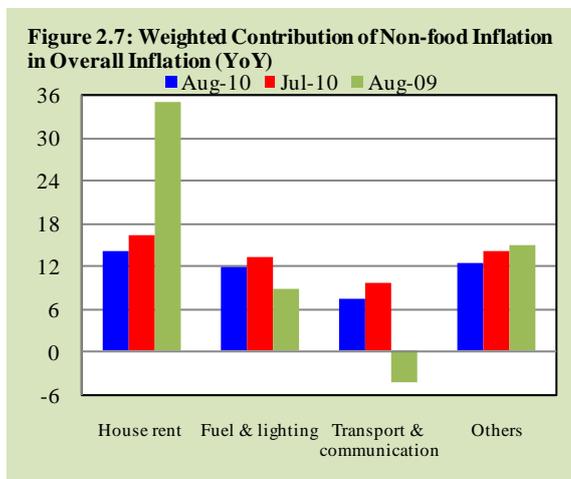
recent months. This is also reflected from the fall in non-food-non-energy (NFNE) - a measure of core inflation - to single digit for the first time in five months. NFNE inflation (YoY) declined to 9.8 percent in August 2010 from 10.3 percent during July 2010 and 12.6 percent during the corresponding month last year. Similar trend was also observed in NFNE inflation (MoM) during August 2010 compared to July 2010.

Further analysis of CPI non-food group indicates that out of nine sub-groups, six recorded decline in inflation during August 2010 compared with July 2010, while the remaining three witnessed a slight increase in inflation. Highest decline of 2.8 percentage points was registered by *transport & communication* sub-group followed by 1.5 percentage points decline in *education* sub-group. On the other hand, highest increase of 0.7 percentage points was recorded in *household furniture & fixture* sub-group (see **Figure A1**).

Share of non-food inflation in overall inflation also decreased significantly during the review month compared to the previous month. All sub-groups of non-food group except *household furniture & equipment* declined in terms of share in overall inflation. Contribution of *household furniture & equipment* to overall inflation remained unchanged during August 2010 compared to the last month. Moreover, the highest

decline in the weighted contribution to CPI inflation was registered in *house rent index (HRI)*, followed by *transport & communication* sub-group. HRI inflation declined during August 2010 mainly due to fall in the prices of cement (see **Figure 2.7**).

Segregated item-wise inflation within non-food group indicates that out of 250 items, price changes in 85 items remained below five percent. Seventy-six items recorded price rises between 5-10 percent. While the remaining 89 items registered double digit price change (see **Table A4**).



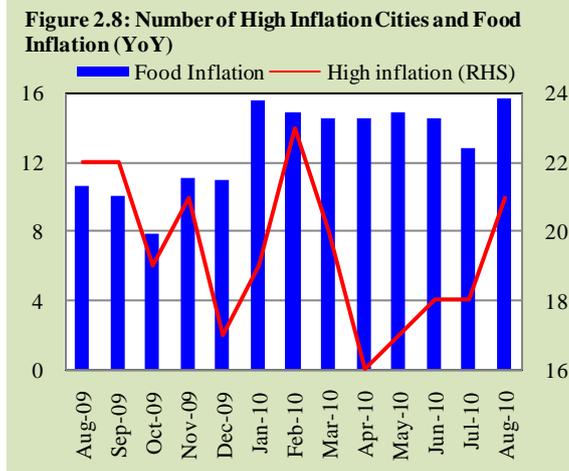
### 2.3 City-wise Inflation

It is important to note that food inflation has been the major driver of inflation in the country. This fact is clearly seen in city-wise inflation data. It has been observed over the time that the number of cities recording higher inflation than national average inflation increased as food inflation rose (see **Figure 2.8**).

City-wise inflation data shows that, like the previous month, inflation in all cities was mainly driven by food inflation. Overall inflation in 21 cities out of 35 was higher than national average inflation while the remaining cities recorded inflation below national average inflation (see **Table A6**).

Analysis of city-wise inflation shows that during August 2010:

- Bannu recorded the highest inflation, food as well as non-food inflation.
- Islamabad recorded the lowest overall inflation due to significantly lower non-food inflation.
- Lowest food inflation was seen in Loralai.
- Among provincial and federal capitals, Islamabad, Lahore, and Quetta witnessed lower inflation than the national average, while Peshawar and Karachi registered higher inflation. Non-food inflation was lower in all these cities except Peshawar. Islamabad and Quetta also recorded lower food inflation relative to the national average food inflation.



### 2.4 Income Group-wise Inflation

Incidence of inflation was the highest on lower income groups in August 2010 (see **Tables 2.2 & A7**). On the other hand, impact of food inflation was highest on high income group, followed

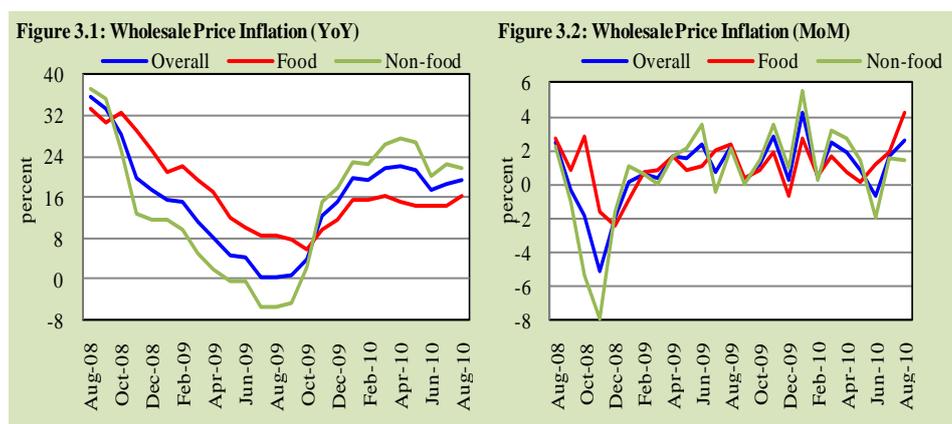
**Table 2.2: Income Group-wise CPI Inflation** percent

	Upto 3000		Rs. 3001-5000		Rs. 5001-12000		Above Rs. 12000	
	Aug-09	Aug-10	Aug-09	Aug-10	Aug-09	Aug-10	Aug-09	Aug-10
<b>Year on Year (August over August)</b>								
General	11.1	13.6	11.2	13.7	11.1	13.5	10.0	13.0
CPI Food	11.2	15.5	10.5	15.4	10.5	15.4	10.8	16.0
CPI Non	11.0	11.1	12.0	11.6	11.8	11.4	9.6	11.1
<b>Month on Month (August over July)</b>								
General	1.4	3.2	1.4	3.1	1.3	2.7	1.1	2.1
CPI Food	1.5	5.3	1.5	5.4	1.5	5.1	1.5	5.0
CPI Non	1.3	0.3	1.4	0.3	1.1	0.3	0.9	0.3

by the lowest income group. Apparently, this statistics is counter intuitive. However, a disaggregated analysis reveals that declines in the prices of wheat, wheat flour and some pulses offset some impact of food inflation for low income groups. In contrast, sharp surge in the prices of ghee, honey, eggs, vegetables, and fruits disproportionately affected this in the high income group.

### 3. Wholesale Price Index

Similar to CPI trends, WPI inflation (YoY) also witnessed an increase during August 2010 compared to July 2010. The uptick in WPI inflation is principally attributed to jump in WPI food inflation, as other than wheat and wheat products, all food commodities registered sharp increases amid supply shortages, strong



Ramadan demand, as well as, rising international prices. However, despite some ease in WPI non-food inflation, it remained the major contributor to WPI inflation and registered at 21.6 percent YoY during August 2010 compared with 22.5 percent in July and a deflation of 5.6 percent in the corresponding month of 2009 (see **Figure 3.1**).

Similarly, on MoM basis, WPI inflation increased to 2.6 percent in August 2010 – the highest rise since January 2010. This sharp jump is entirely attributed to a record surge in WPI food inflation (MoM), whereas WPI non-food inflation (MoM) eased during the month under review compared to the previous month (see **Figure 3.2**).

Item-wise analysis of WPI basket shows that out of 106 composite items, 9 items recorded either decline or no change in prices, 24 items registered price up to 5.0 percent, 26 items witnessed price rise above 5.0 percent but lower than 10.0 percent. The remaining 47 items recorded price rise of more than 10.0 percent,

including one (pulse moong) which registered price rise of 113.5 percent YoY during August 2010 (see **Annexure Table A8**).

### Food Group

Like CPI, WPI food inflation also increased during August 2010. WPI food inflation rose to 16.4 percent YoY during August 2010 compared with 14.3 in July 2010 and 8.3 percent during August 2009. Within 43 food items in the WPI basket, 11 items recorded lower than 5.0 percent price change, only five items registered up to 10.0 percent price rise, while the remaining 27 items witnessed more than 10.0 percent price rise during August 2010 (see **Figure 3.3**).

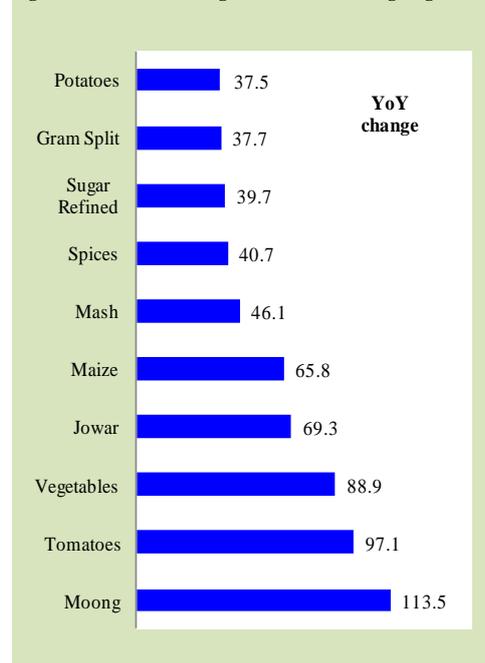
Sugar prices increased during the review month due to supply shortages whereas higher prices of pulses can be attributed to higher international prices of these commodities. However, significant price hikes in perishable food items seems to be direct impact of production losses and consequent supply disruptions due to heavy monsoon rains and floods in the country. It is important to note that decline in wheat and flour prices partly offset pressures on food inflation during August 2010. The fall in wheat prices was an outcome of flour mills and government's decision to provide wheat and flour at lower prices during Ramadan.

### Non-food Group

Although WPI non-food inflation decreased during August 2010 compared to July 2010, it remained strong at 21.6 percent YoY during the month under review compared with 22.5 percent in the previous month and a deflation of 5.6 percent in the corresponding month last year.

Strong WPI non-food inflation (YoY) can be attributed to: (a) higher prices of cotton, and sugarcane due to crop damages during recent floods; (b) higher furnace oil and natural gas prices; (c) rise in electricity tariffs for industrial and agriculture consumers; and (d) higher cotton products' prices. Thus, a dominating

**Figure 3.3: Food Items Registered Decline during August 2010**



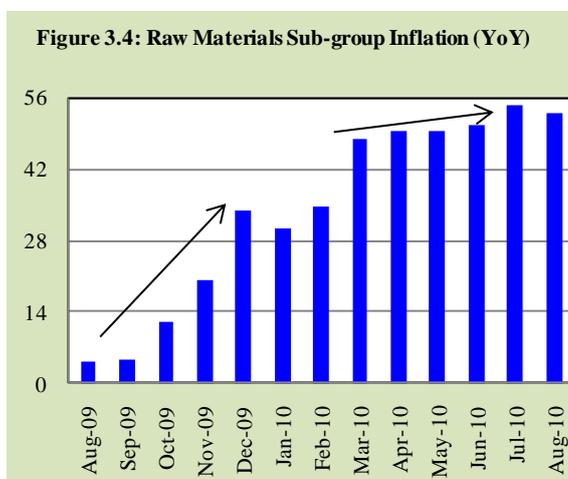
part of WPI non-food inflation resulted from increases in international commodity prices and further reduction in subsidy on energy.

Division of WPI non-food into sub-groups indicates that the highest inflation was recorded in *raw materials* sub-group. It is important to note that inflation in all sub-groups of WPI non-food group was in double digits except in *building materials* sub-group. However, inflation in all sub-groups was lower than that in the previous month except for *building materials* sub-group (see **Table 3.1**).

**Table 3.1: WPI Inflation Trends**

	Overall	Food	Non-Food	Raw materials	Fuel, lighting & lubricants	Manufactures	Building materials
<b>Year on Year</b>							
Aug-09	0.3	8.3	-5.6	4.1	-10.0	-0.3	-13.3
Jun-10	17.6	14.5	20.1	50.5	12.6	19.5	13.2
Jul-10	18.7	14.3	22.5	54.6	15.7	22.2	7.5
Aug-10	19.2	16.4	21.6	52.8	15.4	20.6	8.0
<b>Month on Month</b>							
Aug-09	2.2	2.3	2.1	2.0	3.0	1.8	-1.1
Jun-10	-0.6	1.2	-2.0	0.3	-4.0	-0.8	-0.4
Jul-10	1.7	1.9	1.5	1.2	1.8	2.1	-1.8
Aug-10	2.6	4.2	1.4	0.8	2.7	0.5	-0.7

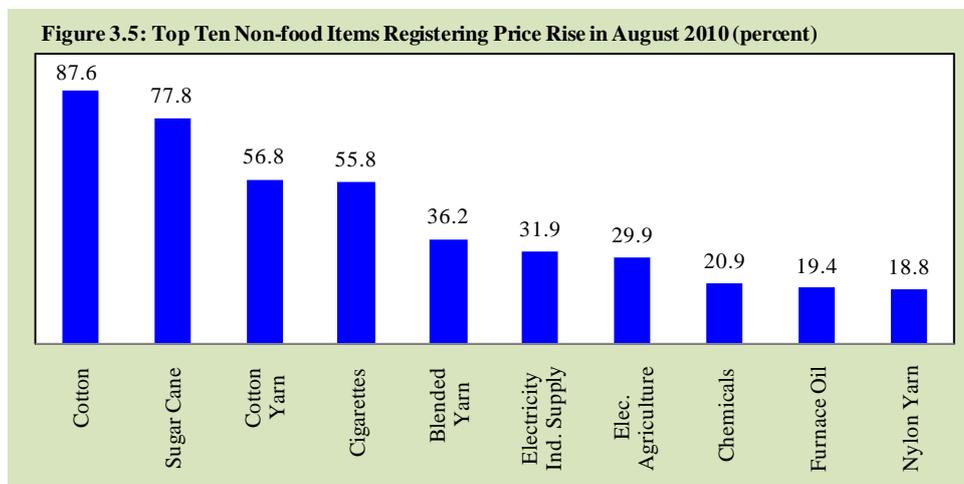
Despite some ease, *raw materials* sub-group witnessed a very high inflation of 52.8 percent during August 2010 compared with 54.6 percent in July 2010. Inflation in the sub-group was mainly driven by two items: cotton and sugarcane. The prices of cotton and sugarcane are rising in tandem with international prices of these items amid concerns over supply and strong demand (see **Figure 3.4**). Cotton output in China and Pakistan was hit by adverse weather.



Although, cotton harvest in US and India is likely to improve substantially, an export ban by India fueled cotton prices in recent months. Similarly, sugarcane harvest declined in India, Pakistan, Thailand, and China, which pushed up international prices of sugar.

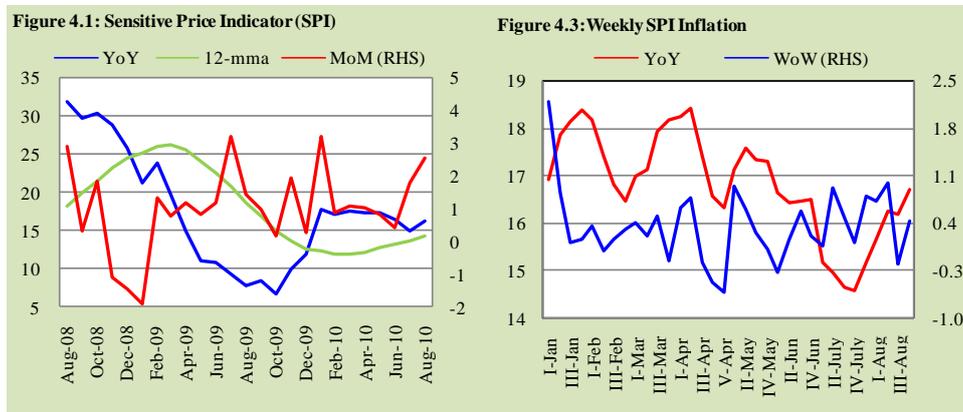
A rise in the prices of most of the items in manufacturers group is also attributed to rise in the prices of their raw material. For example, surge in cotton prices is reflected in higher prices of yarn, tobacco in cigarette, and leather price in footwear.

A disaggregated analysis of WPI non-food group suggests that prices of only 5 items either remained unchanged during August 2010 or declined. Another 18 items recorded price rise between 0 to 5.0 percent, while 20 items recorded price rise above 5.0 percent and up to 10.0 percent. The remaining 20 items of non-food group witnessed double digit price increase during the review month. Items within non-food group registering significant price rise are given in **Figure 3.5**.



#### 4. Sensitive Price Indicator

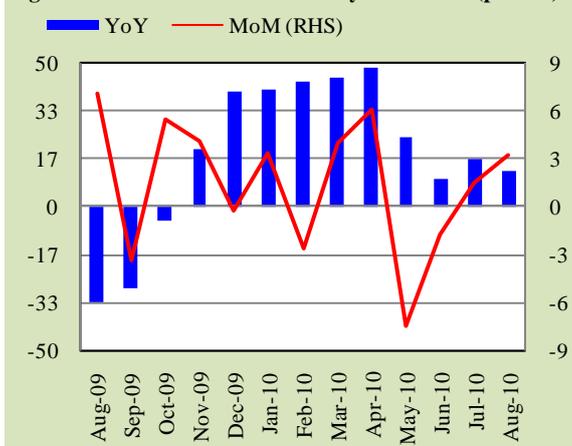
Inflation measured by Sensitive Price Indicator (SPI) also increased to 16.2 percent YoY during August 2010 from 14.9 percent in July 2010. Uptick in SPI inflation is entirely attributed to rise in the prices of most of the essential food items due to strong demand in Ramadan and supply disruptions due to rains and floods. This rise was more prominent in weekly SPI inflation (week-on-week basis) which increased to 0.4 percent during the last week of August 2010 from deflation of 0.2 percent a week earlier (see **Figures 4.1 & 4.2**).



## 5. Global Commodity Prices Overview

International commodity prices witnessed a rise (on YoY basis) during August 2010 compared to the previous month. A surge in the prices of key food commodities offset the impact of a relative ease in the prices of metals and crude oil during the month under review. IMF commodity index witnessed a rise of 12.3

**Figure 5.1: Trend of IMF Commodity Price Index (percent)**



percent (YoY) during August 2010 compared with an increase of 16.4 percent (YoY) in July 2010; however it is in sharp contrast to a decline of 33.5 percent in the corresponding period of the preceding year. This shows that international commodity prices are significantly higher than that prevailing in the corresponding period.

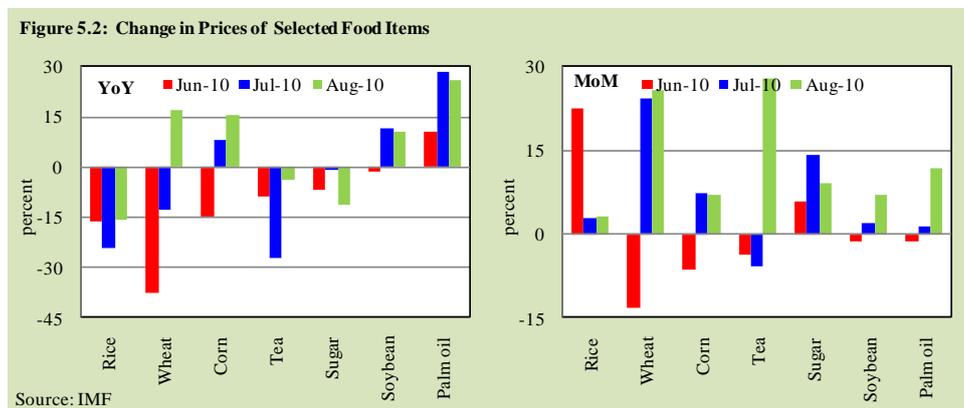
In line with YoY global commodity prices, the MoM global commodities prices also increased in August 2010 over the prices of last month. This rise was mainly attributed to rising prices of metals, fuels, cotton, palm oil, soyabean, rice, wheat and tea.

### Food Group

Food price index increased by 12.0 percent YoY during August 2010 compared with 5.0 percent rise in July 2010 and a sharp fall of 17.9 percent in the corresponding month of 2009. This August 2010 surge is mainly attributed to rise

in grain prices. In particular, wheat prices soared by 17.1 percent YoY in the month under review in contrast to 36.1 percent decline in the same month of previous year. This surge in wheat prices came because of weather related losses to crop in Russia, Canada, Kazakhstan, and Ukraine. Subsequently, Russia imposed a ban on wheat export, which also put upward pressures on global wheat prices. Wheat prices reached US\$ 246.4 per metric ton in August 2010 - the highest level since July 2009.

Similarly, international corn prices also increased by 15.4 percent YoY in August 2010 compared to a decline of 35.4 percent in the same period last year. This rise in corn prices mainly came from dry weather condition in Russia, Canada and US.



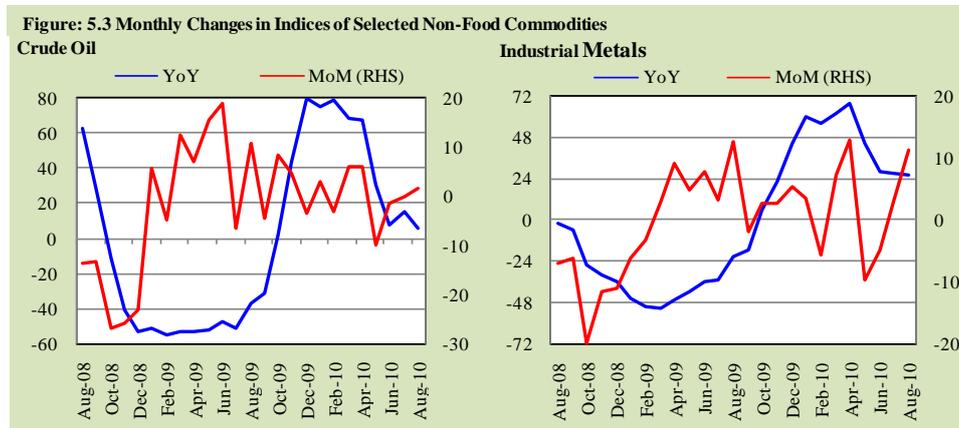
In contrast to wheat and corn, sugar prices declined by 11.5 percent YoY in August 2010 as against sharp increase of 58.8 percent in the corresponding month of last year. However, on MoM basis, world sugar prices increased by 9.1 percent in August 2010. Surge in sugar prices was attributed to higher international demand from Muslim countries for Holy Month of Ramadan, tight supplies from Russia and South Africa due to adverse weather conditions. Moreover, lower estimation of sugar production in Brazil from 34.1 million tons to 33.7 million for 2010 due to dry weather, 42 percent rise in import of sugar by China in 2010 on the back of reduction in domestic production for the second consecutive year along with crop damages in Indonesia and Pakistan are the other factors responsible for increase in world sugar prices.

Prices of palm oil and soybean oil increased by 26.0 and 10.6 percent respectively in August 2010 amid supply problems, strong demand by Asian and Muslim countries for their religious festivals, unfavorable weather in Russia and Europe, depletion in US soybean stocks and expectations of lower palm oil crop in major

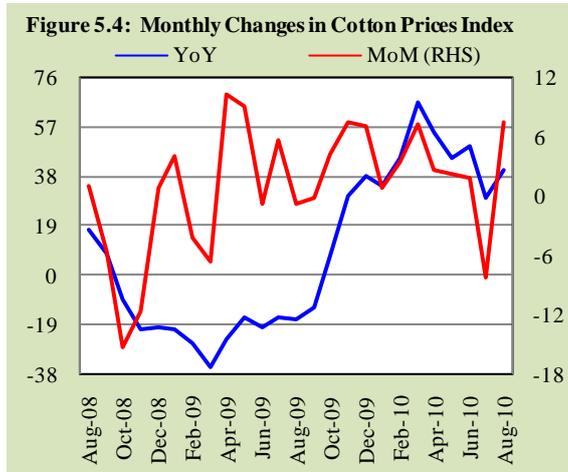
producing regions due to La Nina weather are other reasons for higher global prices.

**Non Food Group**

The crude oil prices rose by a moderate 6 percent YoY in August 2010 compared with 15.5 percent in July 2010 and a fall of 37.5 percent in August 2009. This increase was mainly attributed to improved investor sentiments regarding oil demand recovery especially from China. Gains in the US equity markets signaled an improvement in economic recovery, fall in jobless claims and a recovery in global oil demand was the main factors for rise in crude oil prices. The rise in the prices was also attributed to tropical storm Earl, which joined hurricane Danielle ahead of its expected arrival and weak dollar against the euro.



Similar to crude oil trend, prices of cotton also increased in international markets on both YoY and MoM basis. Cotton prices rose by a strong 40.6 percent YoY in August 2010 compared with 29.9 percent in the preceding month. Cotton prices jumped by 7.4 percent MoM in August 2010 amid increased global demand and anticipated supply disruptions due to flood in Pakistan, and poor harvest in China. Imposition of quantitative restriction by India on cotton exports fuelled cotton prices. Moreover, an expected expansion in global cotton



consumption by 3.1 percent in the coming season due to higher demand from China and India also pushed up the prices.

Metal prices surged by 11.3 percent MoM in August on top of an increase of 2.7 percent in the previous month amid weak US dollar against euro and improving demand from China. Metal prices registered a rise of 25.9 percent YoY, slightly lower than 27.2 percent recorded a month earlier. Relatively strong demand and falling stocks drove up the prices of copper, aluminum, and nickel.

## Annexure A

	Weights	MoM change			YoY change		
		Aug-09	Jul-10	Aug-10	Aug-09	Jul-10	Aug-10
<b>I. Food Group</b>	<b>40.3</b>	<b>2.5</b>	<b>1.5</b>	<b>5.1</b>	<b>10.6</b>	<b>12.8</b>	<b>15.6</b>
<b>II. Non-Food Group</b>	<b>59.7</b>	<b>1.0</b>	<b>1.0</b>	<b>0.3</b>	<b>10.8</b>	<b>12.0</b>	<b>11.2</b>
Apparel, textile, etc.	6.1	0.5	1.2	0.5	6.1	10.3	10.2
House rent	23.4	1.0	0.4	0.5	17.6	8.8	8.2
Fuel & lighting	7.3	0.5	3.9	0.1	13.2	21.8	21.3
Household furniture & equipment	3.3	0.3	1.1	0.9	7.8	7.9	8.5
Transport & communication	7.3	2.5	0.4	0.1	-5.6	17.0	14.3
Recreation & entertainment	0.8	0.0	0.0	0.1	2.9	14.4	14.5
Education	3.5	1.4	0.1	0.0	13.5	8.4	7.0
Cleaning, laundry, etc.	5.9	0.6	0.9	0.0	11.9	10.9	10.2
Medicare	2.1	0.0	0.4	0.3	6.0	11.0	11.3
<b>Headline</b>	<b>100.0</b>	<b>1.7</b>	<b>1.2</b>	<b>2.5</b>	<b>10.7</b>	<b>12.3</b>	<b>13.2</b>

Groups	% Change	Total Number of Items		No. of Items in each Inflation Range							
				Decrease or no change (0% or less)		Subdued increase (>0% but <5%)		Moderate increase (>5% but <10%)		Double digit increase (over 10%)	
				Aug-09	Aug-10	Aug-09	Aug-10	Aug-09	Aug-10	Aug-09	Aug-10
<b>I. Food Group</b>	<b>15.6</b>	<b>113</b>	<b>113</b>	<b>19</b>	<b>11</b>	<b>8</b>	<b>15</b>	<b>10</b>	<b>12</b>	<b>76</b>	<b>75</b>
<b>II. Non-Food Group</b>	<b>11.2</b>	<b>250</b>	<b>250</b>	<b>64</b>	<b>50</b>	<b>38</b>	<b>35</b>	<b>74</b>	<b>76</b>	<b>74</b>	<b>89</b>
Apparel, textile, etc.	10.2	42	42	6	5	5	4	23	18	8	15
House rent	8.2	1	1						1	1	
Fuel & lighting	21.3	15	15	6	1	2		1	2	6	12
Household furniture & equipt	8.5	44	44		1	9	6	22	26	13	11
Transport & communication	14.3	43	43	21	14	7	5	9	7	6	17
Recreation & entertainment	14.5	16	16	6	5	6	4	2	1	2	6
Education	7.0	24	24	5	5	2	6	4	8	13	5
Cleaning, laundry, etc.	10.2	36	36	4	6	3	5	12	11	17	14
Medicines	11.3	29	29	16	13	4	5	1	2	8	9
<b>Overall</b>	<b>13.2</b>	<b>363</b>	<b>363</b>	<b>83</b>	<b>61</b>	<b>46</b>	<b>50</b>	<b>84</b>	<b>88</b>	<b>150</b>	<b>164</b>

Note: Prices of 11 seasonal items were not reported during the month.

**Table A3: Top Ten Contribution to YoY CPI Inflation in Aug 2010**

Items	Weights	YoY change		Weighted Contribution
		Aug-09	Aug-10	
<b>A. Ranked by Weighted Contribution</b>				
1 House Rent Index	23.43	17.55	8.23	14.05
2 Vegetables	1.84	36.42	51.14	<b>9.0</b>
3 Milk Fresh	6.66	14.07	15.64	<b>8.93</b>
4 Meat	2.70	16.76	25.70	7.29
5 Electricity	4.37	25.58	27.63	<b>7.07</b>
6 Sugar	1.95	69.57	36.17	<b>5.06</b>
7 Natural Gas	2.05	2.15	18.88	3.92
8 Fresh Fruits	1.62	19.36	25.32	3.51
9 Transport Fare/Charges	2.12	1.62	16.43	3.25
10 Vegetable Ghee	2.67	-15.22	12.73	2.92
<b>Total</b>	<b>49.40</b>			<b>64.95</b>
<b>B. Ranked by Percentage Change</b>				
1 Pulse Moong	0.22	1.80	114.49	1.76
2 Tomatoes	0.48	-17.89	85.75	2.66
3 Pulse Mash	0.20	46.87	56.67	1.00
4 Vegetables	1.84	36.42	51.14	8.96
5 Communication	1.93	3.96	39.94	2.57
6 Onions	0.62	-6.69	37.66	1.88
7 Sugar	1.95	69.57	36.17	5.06
8 Potatoes	0.58	15.73	29.65	1.91
9 Jewellery	0.39	17.60	28.91	1.43
10 Pulse Gram	0.43	-16.21	28.76	0.81
<b>Total</b>	<b>8.64</b>			<b>28.05</b>
<b>C. Ranked by Weights</b>				
1 House Rent Index	23.43	17.55	8.23	14.05
2 Milk Fresh	6.66	14.07	15.64	8.93
3 Wheat Flour	5.11	16.13	-6.80	-3.71
4 Electricity	4.37	25.58	27.63	7.07
5 Bakery & Confectionary	2.98	6.20	4.78	0.76
6 Meat	2.70	16.76	25.70	7.29
7 Vegetable Ghee	2.67	-15.22	12.73	2.92
8 Tution Fees	2.36	8.64	7.76	1.18
9 Transport Fare/Charges	2.12	1.62	16.43	3.25
10 Natural Gas	2.05	2.15	18.88	3.92
<b>Total</b>	<b>54.45</b>			<b>45.66</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 13.2 percent in August 2010.

Table A4: Distribution of Price Changes (YoY)- Selected CPI Items, August 2010				
Groups	Decrease or no change	Subdued increase (upto 5%)	Moderate increase (5 to 10%)	Increase of over 10%
Food Group	Wheat Flour Bag, Coconut Dry Av.Qlty, Wheat, Aloo Bukhara, Pulse Masoor, Maida, Wheat Flour Fine/Superior, Cuminseed White National, Pepper Black National	Bread Tandoori St. Size, Raisins Av.Qlty, Rice Basmati Sup. Qlty, Ice Cream Walls, Cooking Oil, Milo 200 Gm, Almonds Whole Av.Qlty, Betel Nuts	Chillies Powd.National 200Gm, Mustard Oil Av.Qlty, Vegetable Ghee Tin, Fruit Juice Tetra Pack, Dates Av.Qlty, Vermicelli, Bread Plain Medium Size, Ice, Milk Tetra Pack 1/2 Ltr.	Tea Prepared (Ordinary), Betel Leaves, Bottlegourd, Honey Langanese 500 Gm, Beef With Bone, Tinda, Besan Av. Qlty, Tea Lipton Yellow Label 200G, Rooh Afza
Apparel & Textile	Gents Shoes Paul Bata, Gents Sandal Bata, Child Shoe Power Lite Bata	Shoe Repair Half Sole, Shoe Repair Half Sole, Tailoring Coat-Pant Suit	Underwear Av.Qlty Medium Siz, Chaddar (W/Wear) (2X2.5 Mtr), School Uni. Kameez,Shal.Girl	Georgette Av.Qlty, Long Cloth Av.Qlty, Second-Hand Coat For Men
House Rent Index			House Rent Index	
Fuel & Lighting	Match Box Small		Kerosene Oil, Firewood Whole	Gas Chrg 3,3719 - 6.7438 Mmbtu, Bulb Philips 100-Watts, Gas Cylinder Stand. Size, Elect.Charges 301 - 1000 Uni
Household Furniture & Equipment	Washing Machine Singer	Carpet Plain Av. Qlty, Tea-Set S.Steel 3 Pcs. M.Siz. S.Steel Daghchi Medium Size	Aircooler Super Asia, Table Spoon S.Steel Sup.Qlty, Almirah (Steel) 6'X3' 20 Gua	Bedsheet Single Bed Sup.Qlty, Sofaset Wooden With Foam Sea, Water Cooler 9/10 Ltr.Plasti
Transport & Communication.	Train Fare A/C Slp > 500Km, Platform Ticket, Postal Registration Charges, Aerogram For Saudi Arabia	Motorcycle Yamaha 100Cc, Petrol Super, T.C.S. Ch. Min.With In Zone	Air Fare Economy Class, Taxi 4 Seater Fare, Car Suzuki 800 Cc (W/O. A/C), Full Tonga Charges	Bus Fare Max (Within Cit, Bus Fare Min (Within City), Minibus Fare Min.With In Cit, Telephone Charges Local Call
Recreation & Entertainment	V.C.P. Panasonic/Lg/Nat, Radio With C.Player National, Daily "Dawn"	T.V. 20" Colored With R/Cont, Tape Recorder Cassette Blank, Vid. Cassette Blk. Tdk/Sony	Cinema Non-A/C High Class	Cinema A/C. Highest Class, Daily "Jang", Daily "Nawa-E-Waqt"
Education	Com. C.D. (Tdk/Imation), English Book Class Ix Or X, Govt. College Fee Ist. Year	Ball Pen (Local), Urdu Book Ist.Year/Inter. Comp. With Printer & Speaker	Pencilgoldfish/Deer, Paper Foolscape (27"X17")	Exercise.Book Lined 80/100 P, Govt. Engg. Coll. Fee I Year, Maths Book Class Ix Or X
Cleaning & Laundry	Surf (Medium) 160 Grm, Washing Powder 1000 Grm, Robin Blue (35 Grams), Toilet Soap Lux 95 Grams	Brylcreem 210 MI, Facecream Ponds (Medium), Blade 7-O-Clock Stain. 5'S, Talc Powder Vice Roay,B.Cat	Shaving Cream Touch-Me/Adm, Perfume Med.Size Medora/Broa, Washing Soap Nyl(135-160Gms), Beauty Porl Hair Styl Charge	Nail Polish S.Miss/Medora, Dry Cleaning Suit Coat Pant, Hair-Oil Amla/Chambeli
Medicare	EntoxTab, Septran Tablets, Brufen Tabs 200-Mg.	Ventolin Tab. 2Mg, O.R.S. (Nimcol)	Cotton Bandage 2"-4", Doctor (Mbbs) Clinic Fee	Gripe-Water Woodward's, Polyfax Eye Ointment, Dettol (Medium)

**Table A5: City-wise Inflation by Income Groups, August 2010**

	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	3.3	13.2	6.4	16.0	0.6	18.8	3.7	13.3	7.4	15.7	0.5	17.5
2 Faisalabad	2.6	12.0	4.8	14.5	0.6	18.6	2.5	11.9	4.3	13.7	0.9	16.2
3 Rawalpindi	2.9	12.5	5.6	15.3	0.5	17.0	3.0	12.2	6.0	14.0	0.4	15.9
4 Multan	3.6	15.6	6.4	18.4	1.2	19.5	3.8	15.9	6.8	18.6	1.3	19.3
5 Gujranwala	4.4	13.0	7.6	15.3	1.5	18.7	4.0	12.1	7.1	13.5	1.4	16.0
6 Islamabad	2.6	11.5	5.8	16.1	0.0	12.1	2.6	11.6	5.9	15.4	-0.1	12.6
7 Sargodha	1.4	11.7	2.0	14.2	0.8	14.6	1.9	12.8	2.9	15.0	1.0	15.7
8 Sialkot	1.0	11.4	1.6	11.2	0.5	19.3	1.3	11.8	2.3	11.6	0.5	18.7
9 Bahawalpur	1.9	12.4	3.2	12.7	0.9	19.5	1.8	12.6	3.1	12.6	0.7	18.5
10 Karachi	2.4	15.3	4.3	18.2	0.8	18.1	2.5	15.5	4.7	18.8	0.7	16.7
11 Hyderabad	2.1	13.5	3.3	14.8	1.1	18.2	2.2	14.0	3.8	15.4	1.0	17.7
12 Sukkur	3.0	15.8	5.2	18.6	1.2	19.1	3.2	14.2	5.4	15.7	1.5	16.7
13 Larkana	3.7	12.9	6.1	14.7	1.6	17.7	4.6	13.1	7.5	14.9	2.3	16.6
14 Peshawar	4.7	16.3	8.1	19.6	2.0	18.6	5.2	15.5	8.9	17.6	2.3	17.6
15 Bannu	3.8	18.7	5.4	21.7	2.6	20.2	4.2	18.5	6.3	21.1	2.7	19.8
16 Quetta	4.1	13.4	6.8	16.1	1.7	18.5	3.8	13.6	6.9	15.7	1.2	17.4
17 Khuzdar	1.8	9.2	2.6	8.6	1.1	15.1	0.9	10.0	1.7	9.9	0.3	14.3
	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	3.3	12.9	7.1	15.5	-0.1	13.8	2.4	12.7	6.6	16.4	-1.4	5.5
2 Faisalabad	2.5	12.0	4.5	14.1	0.7	13.2	2.2	11.9	4.9	14.8	-0.3	5.5
3 Rawalpindi	2.6	11.9	5.9	13.9	-0.1	12.6	2.2	12.3	6.3	14.8	-1.1	7.7
4 Multan	3.2	14.8	6.2	17.9	0.6	15.0	2.2	14.5	5.3	18.6	-0.6	7.6
5 Gujranwala	3.5	11.8	6.8	13.8	0.9	12.5	2.6	11.7	5.8	14.4	0.0	6.6
6 Islamabad	2.3	11.1	6.0	14.8	-0.6	10.2	1.7	10.4	6.2	15.3	-1.9	4.5
7 Sargodha	2.3	13.4	3.4	15.6	1.3	13.9	3.3	14.7	5.8	19.1	1.0	7.7
8 Sialkot	1.3	11.7	2.3	11.7	0.4	15.0	1.2	12.2	2.4	12.8	0.1	7.7
9 Bahawalpur	2.2	13.5	4.1	14.8	0.5	15.6	2.3	14.5	5.4	18.1	-0.6	7.3
10 Karachi	2.2	14.5	4.3	18.2	0.5	13.3	1.5	12.4	4.1	17.7	-0.6	6.3
11 Hyderabad	1.9	13.7	3.5	14.8	0.7	14.9	1.7	14.1	3.7	14.9	0.1	10.9
12 Sukkur	2.8	14.1	4.9	15.5	1.2	14.6	2.8	14.3	5.0	15.5	1.1	11.9
13 Larkana	4.1	12.4	6.9	13.9	1.8	13.5	3.5	11.7	6.2	13.3	1.2	7.6
14 Peshawar	4.2	14.6	8.0	16.7	1.1	15.1	3.1	14.0	7.0	16.9	0.0	8.9
15 Bannu	4.3	18.1	6.8	20.7	2.3	17.9	3.9	17.3	6.4	19.2	2.0	13.5
16 Quetta	3.2	12.7	6.4	14.5	0.6	13.8	2.8	12.9	5.9	14.9	0.3	8.3
17 Khuzdar	-0.1	8.9	-0.5	7.8	0.3	12.5	-1.7	8.2	-1.9	7.4	-1.5	6.3

	<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>
Bannu	17.9	20.4	16.0	Attock	13.1	17.0	9.9
Kunri	15.0	18.5	12.1	Samundari	13.1	14.4	11.9
Shahdadpur	14.9	16.2	13.8	Khuzdar	13.0	15.2	11.3
Multan	14.9	18.2	11.9	Quetta	12.8	14.7	11.2
D.G. Khan	14.4	15.3	13.8	Lahore	12.8	15.9	10.1
Nawabshah	14.4	15.5	13.6	Larkana	12.4	13.9	11.0
Mardan	14.4	16.9	12.4	Vehari	12.2	14.3	10.5
Peshawar	14.4	16.9	12.3	Rawalpindi	12.1	14.3	10.3
Mirpur Khas	14.4	16.7	12.6	Sialkot	12.0	12.3	11.7
D.I.Khan	14.3	16.8	12.2	Faisalabad	11.9	14.4	9.7
Mianwali	14.3	17.4	11.6	Gujranwala	11.8	13.9	10.1
Sukkur	14.2	15.6	13.1	Jhelum	11.6	13.2	10.2
Turbat	14.2	17.4	11.7	Loralai&Cantt	11.3	12.1	10.6
Abbotabad	14.0	15.2	13.0	Islamabad	10.5	15.2	6.8
Hyderabad	13.8	14.9	12.9				
Sargodha	13.7	16.3	11.4				
Bahawalpur	13.6	14.9	12.4				
Karachi	13.5	18.0	9.9				
Bahawalnagar	13.4	12.7	14.0				
Jhang	13.3	16.1	11.1				
Okara	13.2	15.3	11.4				

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

	percent					
	<b>MoM</b>			<b>YoY</b>		
	<b>Aug-09</b>	<b>Jul-10</b>	<b>Aug-10</b>	<b>Aug-09</b>	<b>Jul-10</b>	<b>Aug-10</b>
<b>Up to Rs. 3000</b>						
General	1.9	1.4	3.2	11.1	12.1	13.6
Food	2.6	1.5	5.3	11.2	12.6	15.5
Non-food	0.8	1.3	0.3	11.0	11.6	11.1
<b>Rs. 3001-5000</b>						
General	1.8	1.4	3.1	11.2	12.3	13.7
Food	2.7	1.5	5.4	10.5	12.4	15.4
Non-food	0.8	1.4	0.3	12.0	12.1	11.6
<b>Rs. 5000-12000</b>						
General	1.7	1.3	2.7	11.1	12.3	13.5
Food	2.6	1.5	5.1	10.5	12.7	15.4
Non-food	0.8	1.1	0.3	11.8	12.0	11.4
<b>Above Rs. 12000</b>						
General	1.6	1.1	2.1	10.0	12.4	13.0
Food	2.4	1.5	5.0	10.8	13.1	16.0
Non-food	1.2	0.9	0.3	9.6	12.0	11.1
<b>All income groups</b>						
General	1.7	1.2	2.5	10.7	12.3	13.2
Food	2.5	1.5	5.1	10.6	12.8	15.6
Non-food	1.0	1.0	0.3	10.8	12.0	11.2

<b>Table A8: Distribution of Price Change (YoY) - WPI Items: August 2010</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>	Masoor, Maida, Wheat Flour, Wheat	Sugar Confectionary, Rice, Powdered Milk, Salt, Gram Whole, Chicken, Beverages	Condiments, Cooking Oil, Mineral Water, Milk Food, Oil Cakes	Mustard & Rapeseed Oil, Cotton Seed Oil, Eggs, Fish, Vegetables Prepared/Preserved, Fresh Milk, Dry Fruits, Vegetable Ghee, Tea, Onions, Beans, Gur, Meat, Besan, Fresh Fruits, Fruit Prepared/Preserved, Bajra, Potatoes, Gram Split, Sugar Refined, Spices, Mash, Maize, Jowar, Vegetables
<b>Raw material</b>	Skins, Pig Iron	Hides, Cotton Seeds	Wool, Mustard/Rapeseeds	Tobacco, Sugar Cane, Cotton
<b>Fuel &amp; lighting</b>		Coal, Motor Sprit	Mobil Oil, Kerosine Oil, Fire Wood	Diesel Oil, Coke, Natural Gas, Furnace Oil, Elec. Agriculture Tariff-D, Electricity Ind. Supply Tariff-B
<b>Manufactures</b>	Matches	Paper, Audio- Visual Instruments, Glass Products, Sole Leather, Utensils, Ready Made Garments, Cosmetics, Soaps, Pesticides & Insecticised, Woolen Textiles, Other Electrical Goods	Hosiery, Fertilizers, Silk & Reyon Textiles, Dying Materials, Plastic Products, Mattresses, Drugs & Medicines, Tubes, Machinery, Transports, Tyres, Cotton Textiles, Chrome Leather	Jute Manufactures, Foot Wear, Nylon Yarn, Chemicals, Blended Yarn, Cigarettes, Cotton Yarn
<b>Building material</b>	Cement, Tiles	Pipe Fittings, Cement Blocks	Timber, Wires And Cables, Glass Sheets	Paints & Varnishes, Sanitary Wares, Bricks, Iron Bars & Sheets

<b>Table A9: SPI Item-wise Price Movements</b>					
<b>S.No</b>	<b>Items</b>	<b>Unit</b>	<b>Prices</b>	<b>Percentage change</b>	
			<b>Aug-10</b>	<b>YoY</b>	<b>Monthly</b>
1	Wheat	Kg.	24.1	-3.4	1.0
2	Wheat flour average qlt.	Kg.	26.4	-7.7	-3.2
3	Rice basmti.broken	Kg.	45.2	1.2	1.2
4	Rice irri-6	Kg.	35.7	0.6	2.5
5	Masur pulse washed	Kg.	117.9	-3.6	0.4
6	Moong pulse washed	Kg.	120.3	113.6	4.5
7	Mash pulse washed	Kg.	169.6	56.4	1.4
8	Gram pulse washed	Kg.	66.5	30.5	10.1
9	Beef	Kg.	199.2	22.8	2.0
10	Mutton	Kg.	375.0	29.4	1.3
11	Egg hen (farm)	Doz.	70.0	18.2	16.2
12	Bread plain	Each	27.4	6.6	0.0
13	Sugar	Kg.	73.3	41.6	10.1
14	Gur	Kg.	81.3	17.7	7.6
15	Milk fresh	Ltr	46.5	13.5	0.5
16	Milk powdered nido	400g	200.0	11.1	0.0
17	Curd	Kg.	55.0	14.7	0.5
18	Veg.ghee tin	2.5kg	373.5	7.3	0.1
19	Veg.ghee loose	Kg.	126.9	16.5	7.5
20	Mustard oil	Kg.	139.6	5.6	2.4
21	Cooking oil	2.5ltr	373.5	3.5	0.1
22	Potatoes	Kg.	35.1	25.9	23.2
23	Onions	Kg.	29.4	26.3	28.7
24	Tomatoes	Kg.	60.1	111.9	58.7
25	Bananas	Doz.	52.7	23.2	10.4
26	Salt powdered	Kg.	7.0	5.2	1.3
27	Red chillies(powd)	Kg.	181.8	45.3	0.7
28	Garlic	Kg.	209.2	117.7	11.4
29	Tea packet	250g	130.3	24.1	0.0
30	Tea (prepared)	Cup	11.3	24.2	2.7
31	Cooked beef plate	Each	49.7	17.0	1.3
32	Cooked dal plate	Each	31.0	16.9	1.1
33	Cigarettes k-2	10's	13.6	35.9	-1.8
34	Coarse latha	Mtr.	51.0	11.3	0.2
35	Lawn (avg.+s.qlty)	Mtr.	105.3	11.9	-0.1
36	Voil printed	Mtr.	53.3	10.7	0.1
37	Shirting	Mtr.	83.5	5.4	0.0
38	Sandel gents bata	Pair	499.0	0.0	0.0
39	Sandel ladies bata	Pair	399.0	5.3	5.3
40	Chappal spng. Bata	Pair	139.0	7.8	7.8
41	Kerosene	Litr	76.2	12.5	-0.8
42	Firewood	40kg	315.8	12.9	0.6
43	Elec. Bulb 60-wats	Each	24.0	33.3	1.2
44	Match box	Each	1.0	0.0	0.0
45	Washing soap	Cake	13.6	8.4	1.0
46	Bath soap lifebuoy	Cake	24.0	9.1	0.9
47	Chicken (farm)	Kg.	136.2	5.5	3.2
48	Gas chrg. All clb. Comb	mmbtu	337.2	17.8	0.0
49	L.P.G.(cylinder 11kg.)	Each	1091.2	46.7	12.0
50	Elec.chrg.all slabs comb	per unit	8.7	27.6	1.4
51	Petrol	Ltr	68.4	11.7	-0.3
52	Diesel	Ltr	73.8	18.8	2.0
53	Telephone local	Call	3.6	48.3	0.0
<b>Maximum</b>				<b>117.7</b>	<b>58.7</b>
<b>Median</b>				<b>14.7</b>	<b>1.2</b>
<b>Minimum</b>				<b>-7.7</b>	<b>-3.2</b>

<b>Table A10: Consumer Price Index Numbers by Major Groups and Selected Commodities</b>				
<b>Item and Specification</b>	<b>Weights</b>	<b>Index</b>		
		<b>Aug-09</b>	<b>Jul-10</b>	<b>Aug-10</b>
<b>General</b>	<b>100.00</b>	<b>206.21</b>	<b>227.79</b>	<b>233.50</b>
<b>Food &amp; Beverages.</b>	<b>40.34</b>	<b>234.69</b>	<b>258.19</b>	<b>271.35</b>
1 Wheat	0.48	293.08	277.68	280.64
2 Wheat Flour	5.11	291.42	280.45	271.61
3 Maida	0.11	278.38	270.73	272.14
4 Besan	0.13	191.52	215.68	235.68
5 Rice	1.34	280.90	280.72	284.58
6 Pulse Masoor	0.22	336.18	329.27	326.24
7 Pulse Moong	0.22	188.25	380.22	403.77
8 Pulse Mash	0.20	238.92	366.48	374.32
9 Pulse Gram	0.43	179.89	208.54	231.62
10 Gram Whole	0.15	193.63	203.42	212.27
11 Mustard Oil	0.05	239.25	250.00	256.36
12 Cooking Oil	0.69	226.76	234.30	234.30
13 Vegetable Ghee	2.67	234.97	251.36	264.89
14 Sugar	1.95	195.96	242.36	266.84
15 Gur	0.07	270.75	289.93	311.16
16 Tea	1.26	169.15	206.11	206.65
17 Milk Fresh	6.66	233.84	269.23	270.42
18 Milk Powder	0.11	208.33	228.51	230.05
19 Milk Products	0.56	215.59	244.44	245.92
20 Honey	0.04	190.50	222.91	232.96
21 Cereals	0.09	238.95	257.40	259.45
22 Jam, Tomato, Pickles & Vinegar	0.25	172.17	205.18	205.62
23 Beverages	0.73	179.85	202.22	202.42
24 Condiments	0.34	242.60	249.06	251.09
25 Spices	0.60	185.14	244.17	237.25
26 Dry Fruit	0.28	325.76	352.57	350.40
27 Bakery & Confectionary	2.98	145.68	152.15	152.65
28 Cigarettes	0.95	202.14	238.20	238.31
29 Betel Leaves & Nuts	0.19	169.64	201.78	205.13
30 Readymade Food	1.68	234.91	262.15	264.22
31 Sweetmeat & Nimco	0.38	238.79	269.58	274.75
32 Fish	0.27	184.39	215.69	215.87
33 Meat	2.70	286.84	354.55	360.56
34 Chicken Farm	0.92	249.49	244.74	253.41
35 Eggs	0.41	222.04	227.07	270.24
36 Potatoes	0.58	302.10	291.68	391.68
37 Onions	0.62	218.86	218.66	301.28
38 Tomatoes	0.48	175.46	222.30	325.91
39 Vegetables	1.84	260.15	297.28	393.20
40 Fresh Fruits	1.62	234.06	248.61	293.33
<b>Apparel, Textile &amp; Footwear.</b>	<b>6.10</b>	<b>157.79</b>	<b>173.11</b>	<b>173.92</b>
41 Cotton Cloth	1.62	159.76	183.72	185.03
42 Silk, Linen, Woolen/Cloth	0.58	157.84	176.10	176.60
43 Tailoring Charges	0.86	168.32	189.02	190.57
44 Hosiery	0.15	170.29	183.05	183.44
45 Readymade Garments	1.20	144.52	155.51	156.07
46 Woolen Readymade Garments	0.15	178.72	200.74	200.74
47 Footwear	1.53	156.91	161.98	162.28
<b>House Rent.</b>	<b>23.43</b>	<b>198.69</b>	<b>213.98</b>	<b>215.05</b>
48 House Rent Index (Combined)	23.43	198.69	213.98	215.05

(continued)

<b>Table A10: Consumer Price Index Numbers by Major Groups and Selected Commodities</b>				
<b>Item and Specification</b>	<b>Weights</b>	<b>Index</b>		
		<b>Aug-09</b>	<b>Jul-10</b>	<b>Aug-10</b>
<b>Fuel And Lighting.</b>	<b>7.29</b>	<b>207.84</b>	<b>251.82</b>	<b>252.08</b>
49 Kerosene	0.14	425.77	460.69	465.08
50 Firewood	0.48	317.43	347.03	347.38
51 Match Box	0.13	200.00	200.00	200.00
52 Bulb & Tube	0.13	118.54	140.88	142.11
53 Electricity	4.37	159.77	203.92	203.92
54 Natural Gas	2.05	276.60	328.37	328.83
<b>H.Hold.Furniture &amp; Equipment Etc.</b>	<b>3.29</b>	<b>165.37</b>	<b>177.79</b>	<b>179.47</b>
55 Utensils	0.37	153.90	163.28	164.23
56 Plastic Products	0.11	197.82	220.19	222.65
57 Suitcase	0.05	159.36	173.40	175.11
58 House Hold Equipments	0.10	153.62	166.84	168.21
59 Furniture (Ready Made)	0.31	177.50	193.06	194.60
60 Furnishing	0.64	158.36	169.00	170.43
61 Elect.Iron Fans & Washing Machine	0.19	160.98	170.46	171.15
62 Sewing Machine, Clock And Needles	0.13	142.68	154.41	156.06
63 Refrigerator & Air conditioner	0.18	132.12	138.90	140.66
64 Marriage Hall	0.04	194.61	213.93	216.85
65 House Hold Servant	1.19	174.79	188.40	190.51
<b>Transport &amp; Communication.</b>	<b>7.32</b>	<b>194.45</b>	<b>221.99</b>	<b>222.20</b>
66 Petrol	1.73	215.09	223.13	221.57
67 Diesel	0.21	419.76	464.69	474.54
68 Cng. Filling Charges	0.16	206.19	226.80	235.17
69 Service Charges	0.38	169.54	184.85	185.32
70 Vehicles	0.26	129.51	138.14	138.64
71 Tyre & Tube	0.28	160.47	182.06	182.48
72 Transport Fare/Charges	2.12	254.18	295.79	295.95
73 Train Fare	0.15	253.24	253.24	253.24
74 Air Fare	0.10	342.93	365.51	365.51
75 Communication	1.93	91.37	127.86	127.86
<b>Recreation &amp; Entertainment.</b>	<b>0.83</b>	<b>121.65</b>	<b>139.12</b>	<b>139.25</b>
76 Recreation	0.34	131.89	142.98	142.98
77 Entertainment	0.49	114.49	136.42	136.65
<b>Education.</b>	<b>3.45</b>	<b>181.06</b>	<b>193.61</b>	<b>193.66</b>
78 Tuition Fees	2.36	176.21	189.89	189.89
79 Stationery	0.35	177.34	191.03	191.46
80 Text Books	0.69	206.92	215.90	215.90
81 Computer & Allied Products	0.05	84.57	85.52	85.71
<b>Cleaning Laundry &amp; Per. Appearance.</b>	<b>5.88</b>	<b>172.64</b>	<b>190.23</b>	<b>190.23</b>
82 Washing Soap & Detergent	1.55	164.80	172.02	172.33
83 Toilet Soap	0.74	186.50	194.80	194.80
84 Tooth Paste	0.40	114.37	119.85	119.85
85 Shaving Articles	0.35	150.55	158.88	159.43
86 Cosmetics	<b>1.43</b>	<b>158.11</b>	<b>171.41</b>	<b>171.46</b>
87 Watches	0.06	138.77	150.91	150.91
88 Jewellery	0.39	344.18	449.70	443.67
89 Laundry Charges	0.22	181.01	198.82	204.08
90 Hair Cut & Beauty Parlour Charges	0.73	153.95	175.54	176.15
<b>Medicare.</b>	<b>2.07</b>	<b>150.64</b>	<b>167.20</b>	<b>167.69</b>
91 Drugs & Medicares	1.08	118.73	135.77	135.77
92 Doctor'S Fee	1.00	185.03	201.08	202.09

<b>Table A11: Wholesale Price Index Numbers by major Groups and Selected Commodities</b>				
<b>Item and Specifications</b>	<b>Index</b>			
	<b>Aug-09</b>	<b>Jun-10</b>	<b>Jul-10</b>	<b>Aug-10</b>
<b>GENERAL</b>	<b>212.16</b>	<b>242.44</b>	<b>246.48</b>	<b>252.93</b>
<b>FOOD</b>	<b>229.52</b>	<b>251.73</b>	<b>256.40</b>	<b>267.12</b>
1 WHEAT	298.19	279.06	280.23	280.25
2 WHEAT FLOUR	292.51	273.54	274.30	268.31
3 MAIDA	292.10	266.62	266.28	267.47
4 BESAN	166.35	188.61	199.35	214.81
5 RICE	324.61	310.72	314.25	326.92
6 MAIZE	210.63	331.03	336.23	349.25
7 JOWAR	229.69	345.17	388.77	388.77
8 BAJRA	184.59	237.17	245.21	253.72
9 BEANS	247.78	294.86	295.82	301.39
10 GRAM WHOLE	202.06	211.41	190.32	208.18
11 GRAM SPLIT	154.26	180.74	191.71	212.40
12 MASOOR	357.24	307.36	306.88	305.28
13 MASH	223.28	306.99	312.25	326.32
14 MOONG	192.45	387.06	393.80	410.95
15 POTATOES	270.02	262.14	285.49	371.20
16 ONIONS	238.13	230.27	226.49	286.89
17 TOMATOES	175.34	132.20	187.04	345.65
18 VEGETABLES	233.30	307.11	332.37	440.66
19 FRESH FRUITS	175.79	191.26	199.31	228.29
20 DRY FRUITS	228.51	259.91	264.01	263.91
21 FRESH MILK	194.61	220.50	221.93	223.39
22 POWDERED MILK	221.74	225.47	225.81	227.54
23 MILK FOOD	169.30	181.08	181.61	182.57
24 VEGETABLE GHEE	253.46	278.75	280.50	298.02
25 MUSTARD & RAPESEED OIL	263.54	279.15	279.15	291.29
26 COTTON SEED OIL	264.68	285.06	286.47	292.62
27 COOKING OIL	219.31	225.71	231.25	234.09
28 OIL CAKES	320.71	325.35	335.07	350.94
29 GUR	247.80	268.31	288.44	305.29
30 SUGAR REFINED	191.84	236.21	247.96	267.97
31 CHICKEN	256.96	258.10	263.75	267.77
32 EGGS	240.01	231.94	233.42	267.66
33 FISH	128.92	145.86	145.86	146.90
34 MEAT	268.91	330.29	336.62	342.54
35 SPICES	195.67	272.40	273.14	275.27
36 CONDIMENTS	285.65	304.45	305.66	300.72
37 SALT	167.44	171.77	171.87	171.87
38 TEA	144.72	172.25	172.49	170.40
39 BEVERAGES	140.76	145.99	146.94	147.02
40 MINERAL WATER	125.87	130.06	132.54	135.11
41 FRUIT PREPARED/PRESERVED	166.91	214.30	217.17	220.47
42 VEGETABLES PREPARED/PRESERVED	168.53	189.31	191.19	192.68
43 SUGAR CONFECTIONARY	100.51	100.57	100.57	100.57
<b>RAW MATERIAL</b>	<b>197.76</b>	<b>296.34</b>	<b>299.80</b>	<b>302.27</b>
44 COTTON	150.65	278.56	279.62	282.57
45 COTTON SEEDS	286.62	276.41	291.24	295.10
46 MUSTARD/RAPESEEDS	275.66	289.33	289.33	297.69
47 TOBACCO	216.41	236.02	245.21	245.54
48 SUGAR CANE	280.70	499.09	499.09	499.09
49 WOOL	140.99	146.46	146.88	148.99
50 HIDES	137.45	139.49	138.12	138.72
51 SKINS	106.46	104.48	104.50	104.50
52 PIG IRON	324.02	321.93	321.93	321.93

(continued)

Item and Specifications	Index			
	Aug-09	Jun-10	Jul-10	Aug-10
<b>FUEL &amp; LIGHT</b>	<b>275.45</b>	<b>304.00</b>	<b>309.51</b>	<b>317.83</b>
53 COAL	141.00	<b>142.50</b>	<b>142.50</b>	<b>142.50</b>
54 COKE	624.58	666.22	675.47	693.98
55 DIESEL OIL	417.17	448.03	451.08	460.79
56 MOTOR SPRIT	213.14	221.32	220.64	219.11
57 MOBIL OIL	198.10	208.33	204.08	210.76
58 FURNACE OIL	312.14	341.81	347.49	372.61
59 KEROSENE OIL	411.29	443.81	440.20	445.10
60 NATURAL GAS	217.12	256.00	256.00	256.00
61 ELECTRICITY IND. SUPPLY TARIFF-B	162.36	201.01	214.08	214.08
62 ELEC. AGRICULTURE TARIFF-D	177.78	205.07	231.01	231.01
63 FIRE WOOD	263.61	282.24	280.17	285.69
<b>MANUFACTURE</b>	<b>143.57</b>	<b>168.82</b>	<b>172.38</b>	<b>173.16</b>
64 SOLE LEATHER	131.99	134.06	134.06	134.06
65 CHROME LEATHER	194.84	212.23	212.23	212.23
66 COTTON YARN	109.66	164.37	171.70	171.92
67 BLENDED YARN	137.50	186.61	187.42	187.33
68 NYLON YARN	110.98	128.09	128.09	131.84
69 COTTON TEXTILES	145.74	154.95	156.95	157.50
70 HOSIERY	155.41	160.37	162.19	163.18
71 SILK & REYON TEXTILES	144.89	152.12	152.52	152.52
72 WOOLEN TEXTILES	137.53	143.32	143.32	143.64
73 JUTE MANUFACTURES	123.97	135.59	137.69	137.69
74 MATTRESSES	135.78	142.61	144.56	144.89
75 READY MADE GARMENTS	118.27	118.87	120.26	121.18
76 UTENSILS	146.64	149.53	149.53	149.98
77 PLASTIC PRODUCTS	139.15	144.91	146.92	148.09
78 GLASS PRODUCTS	179.65	179.81	181.80	182.18
79 CHEMICALS	169.10	201.43	201.06	204.43
80 DYING MATERIALS	88.36	93.46	93.46	93.46
81 SOAPS	181.78	185.38	187.84	188.57
82 COSMETICS	119.58	123.62	123.62	123.62
83 DRUGS & MEDICINES	113.17	120.90	120.96	120.96
84 FERTILIZERS	291.90	312.14	309.91	307.14
85 PESTICIDES & INSECTICISED	146.74	150.11	150.58	152.90
86 MACHINERY	175.23	183.67	187.17	188.11
87 TRANSPORTS	124.15	131.55	133.41	133.41
88 TYRES	208.67	219.60	225.03	225.03
89 TUBES	185.99	198.01	198.61	199.49
90 AUDIO-VISUAL INSTRUMENTS	92.25	92.59	92.59	92.60
91 OTHER ELECTRICAL GOODS	130.55	134.41	134.41	136.83
92 CIGARETTES	171.57	246.75	257.49	267.32
93 PAPER	105.98	106.36	106.36	106.36
94 MATCHES	124.26	124.26	124.26	124.26
95 FOOT WEAR	177.36	192.15	199.97	199.97
<b>BUILDING MATERIAL</b>	<b>198.98</b>	<b>220.29</b>	<b>216.33</b>	<b>214.88</b>
96 CEMENT	140.75	127.57	124.17	123.89
97 BRICKS	232.92	250.44	253.94	262.69
98 CEMENT BLOCKS	166.63	170.83	170.83	170.83
99 TILES	99.67	99.67	99.67	99.67
100 IRON BARS & SHEETS	244.93	292.64	287.02	282.84
101 PIPE FITTINGS	181.03	183.46	184.40	185.07
102 TIMBER	209.87	217.94	216.93	221.30
103 GLASS SHEETS	168.78	178.68	181.12	184.74
104 PAINTS & VARNISHES	146.05	149.43	149.43	161.25
105 SANITARY WARES	146.94	162.22	162.22	162.40
106 WIRES AND CABLES	259.37	272.09	272.09	280.06

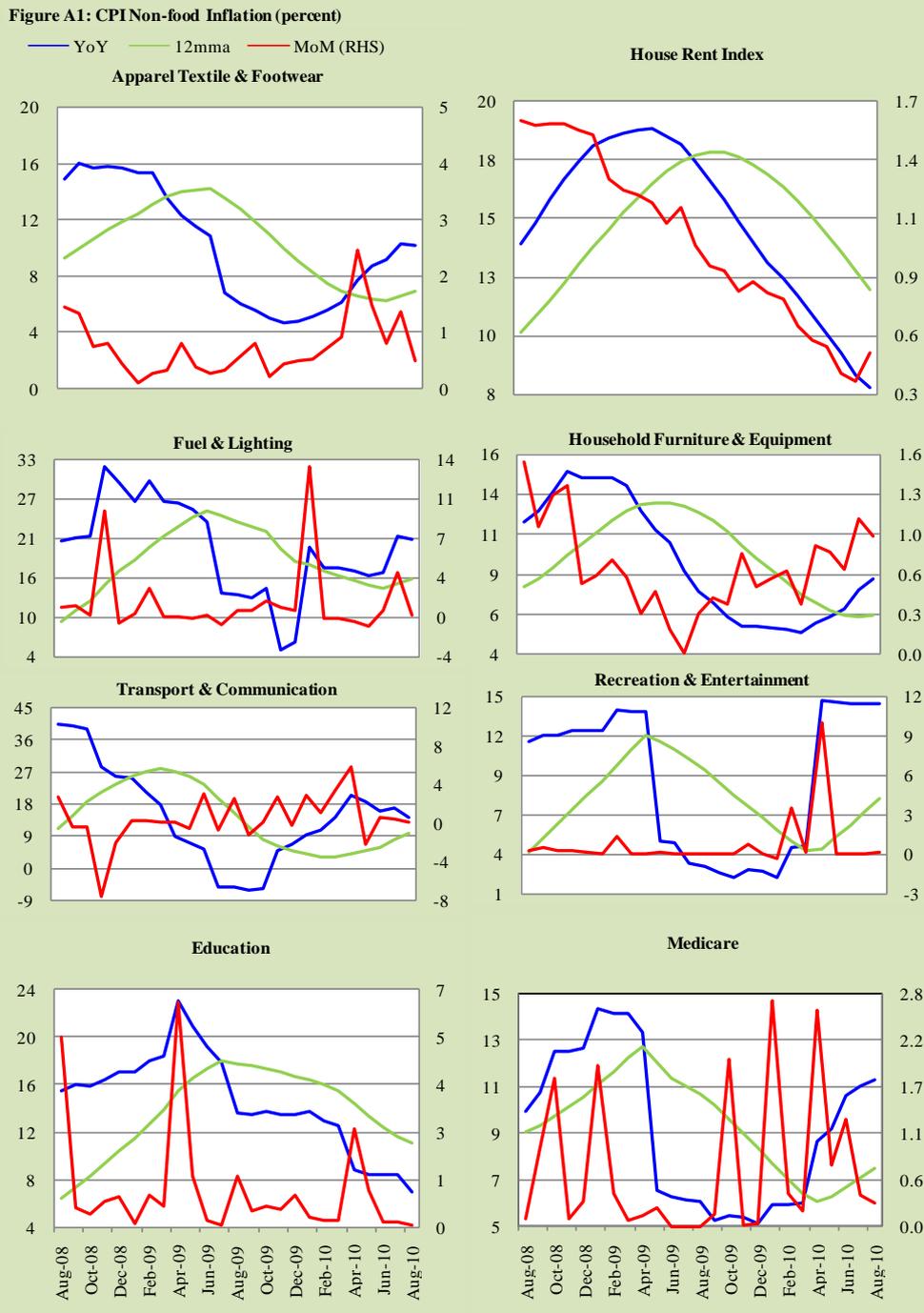
**Table A12: Price Indices - Base 2000-01=100**

Period	CPI			WPI			SPI *
	Overall	Food	Non-food	Overall	Food	Non-food	
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
2008-09	191.90	215.69	175.82	201.10	213.54	192.04	209.29
2009-10	214.41	242.59	195.36	226.49	239.01	217.39	236.87
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
Jun.	199.69	222.23	184.45	206.13	219.81	196.17	215.09
Jul.	202.77	228.93	185.08	207.57	224.31	195.39	222.00
Aug.	206.21	234.69	186.95	212.16	229.52	199.53	225.18
Sep.	207.14	235.59	187.90	212.53	230.34	199.57	227.34
Oct.	209.11	238.12	189.49	215.01	232.35	202.39	227.73
Nov.	212.02	242.40	191.48	220.98	236.69	209.55	232.14
Dec.	210.99	238.16	192.62	221.43	235.06	211.51	232.81
2010 Jan.	216.09	242.91	197.95	230.80	241.37	223.11	240.25
Feb.	216.93	243.17	199.19	231.64	242.67	223.61	242.37
Mar.	219.65	247.55	200.78	237.51	246.68	230.84	244.98
Apr.	223.44	252.53	203.77	241.88	248.53	237.04	247.50
May.	223.58	252.62	203.94	243.98	248.81	240.47	249.51
Jun.	225.03	254.42	205.15	242.44	251.73	235.68	250.61
Jul.	227.79	258.19	207.23	246.48	256.40	239.26	255.13
Aug.	233.50	271.35	207.91	252.93	267.12	242.60	261.70

\*: all groups combined

<b>Table A13: International Commodity Prices/Indices</b>			
	<b>Jun-10</b>	<b>Jul-10</b>	<b>Aug-10</b>
<b>Energy</b>			
Crude Oil (US\$ per barrel)*	74.7	74.7	75.9
IMF Energy Index (2005 =100)	139.8	140.2	141.4
WB Energy Index (1990=100) @	214.3	219.3	228.2
<b>Food</b>			
Rice (\$/MT)	459.8	472.5	486.9
Wheat (\$/MT)	157.7	195.8	246.4
Sugar (US cent / pound)	15.4	17.6	19.2
Palm Oil (\$/MT)	764.9	774.5	865.2
Soybean Oil (\$/MT)	821.0	836.7	895.6
<b>Non-Food Non-Energy</b>			
Cotton Outlook 'A' Index #	91.7	84.2	90.4
IMF Metal Price Index (2005=100)	151.2	155.3	172.9
Copper (\$/MT)	6,501.5	6,750.6	7,302.7
Aluminum (\$/MT)	1,929.4	1,989.1	2,110.5
Iron Ore (\$ cents/dry MT)	167.0	167.0	205.0
Tin (\$/MT)	17,257.7	18,206.5	20,733.1
Nickel (\$/MT)	19,411.3	19,548.5	21,448.8
Zinc (\$/MT)	1,746.5	1,847.0	2,047.5
Lead (\$/MT)	1,707.3	1,844.0	2,082.8
Uranium (\$/pound)	40.8	41.9	46.1
DAP (\$/MT)	448.0	461.3	496.1
Urea (\$/MT)	229.3	249.5	273.0

\$/MT = US\$ per metric tonne.  
 \* Crude Oil (petroleum), simple average of three spot prices; Dated Brent, West Texas Intermediate, and the Dubai Fateh  
 # Middling 1-3/32 inch staple, Liverpool Index "A", average of the cheapest Cts/lb five of fourteen styles, CIF Liverpool (Cotton Outlook, Liverpool). From January 1968 to May 1981 strict middling 1-1/16 inch staple. Prior to 1968, Mexican 1-1/16. 2/  
 DAP: Diammonium Phosphate  
 @ World bank commodity index for low and middle income countries  
**Source: IMF and World Bank.**



**Figure A2: Frequency Distribution of Price Changes of CPI Items, August 2010**

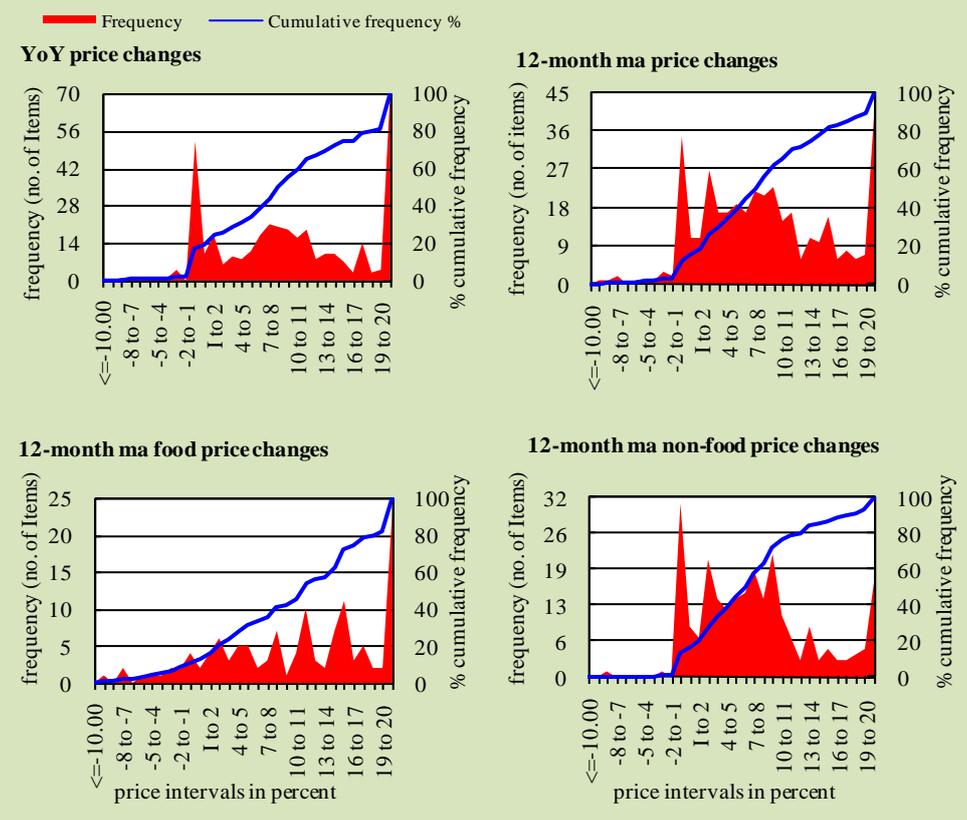
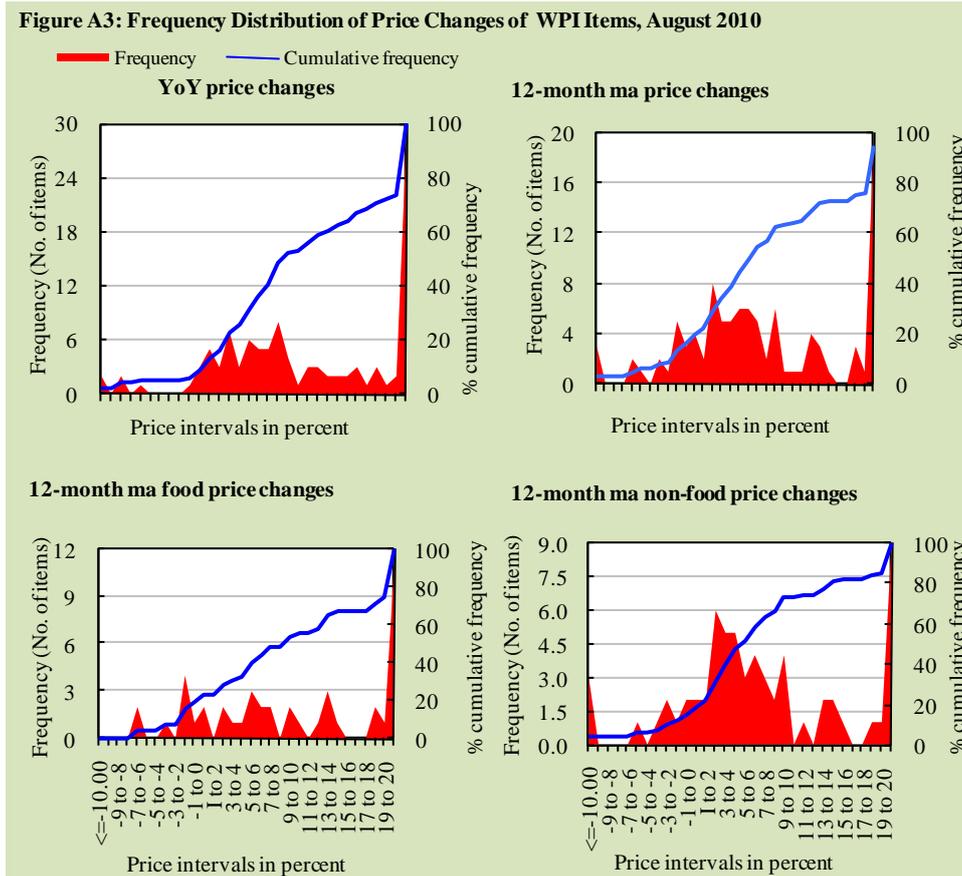


Figure A3: Frequency Distribution of Price Changes of WPI Items, August 2010



## **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