

Inflation Monitor

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Overview

Inflationary pressures remained strong in the economy during November 2007 with headline CPI inflation accelerating significantly to 8.7 percent in November 2007 from 8.1 percent in the same month last year, owing largely to strong food inflation that offset the relatively weak (but rising) non-food inflation. Food inflation registered at 12.5 percent in November 2007 compared to 10.6 percent in the corresponding month last year. This was largely due to an upward pressure on the prices of some key food staples including wheat, rice, tomatoes, egg, vegetable ghee, etc. However, while non-food CPI inflation (YoY) witnessed a moderate decline of 0.4 percentage points in November 2007 over the same month last year, it too is witnessing an uptrend in recent months (see **Table 1.1**).

Table 1.1: Inflation (YoY)

	percent						
	CPI			Core Inflation#		WPI	SPI**
	General	Food	Non-food	NFNE *	Trimmed		
Nov-06	8.1	10.6	6.3	5.9	6.5	7.5	10.7
Dec-06	8.9	12.7	6.2	5.7	6.3	8.0	12.0
Jan-07	6.6	8.7	5.2	5.7	6.5	5.4	9.5
Feb-07	7.4	10.0	5.6	6.0	6.8	5.1	8.8
Mar-07	7.7	10.7	5.5	5.9	6.7	6.1	8.9
Apr-07	6.9	9.4	5.2	5.6	6.6	6.0	7.7
May-07	7.4	11.3	4.7	5.2	6.2	6.8	8.3
Jun-07	7.0	9.7	5.1	5.7	6.5	7.3	8.0
Jul-07	6.4	8.5	4.9	6.0	6.6	7.6	7.5
Aug-07	6.5	8.6	4.9	6.0	6.7	8.0	7.6
Sep-07	8.4	13.0	5.0	6.1	8.0	9.3	9.8
Oct-07	9.3	14.7	5.4	6.5	8.3	11.8	10.7
Nov-07	8.7	12.5	5.9	6.9	8.6	12.6	9.0

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

In contrast to YoY CPI inflation, the annualized trend of inflation measured by the 12-month moving average (12-mma) CPI inflation for November 2007 showed a decline as compared to the same period last year, at 7.6 percent, only a little lower than the 7.9 percent in November 2006. The 12-mma food inflation depicted a significant rise to 10.8 percent in November 2007, compared to 8.1 percent during the same period last year. The strong rise in the annualized figures, captures the sustained pressure on food commodity prices seen through the last 12 months. By contrast 12-mma non-food inflation showed a decline of 2.2 percentage points (5.3 percent in November 2007 compared to 7.7 percent in November 2006).

Unlike YoY CPI inflation, the monthly CPI inflation showed a decline, recording a rise of 0.1 percent in November 2007, which was significantly less than the five-year average of monthly increases in November. The decline in monthly CPI

inflation during the month of November was attributed to monthly food inflation that showed a deflation of 0.6 percent during the month under review. On the other hand, the monthly non-food inflation increased by 0.7 percent in November 2007 compared to monthly inflation of 0.3 percent in November 2006, this was clearly higher than the five-year average (see **Table 1.2**).

Core inflation based on NFNE (non-food non-energy) as well as 20 percent trimmed-mean both continued the rising trend that started in June 2007. This uptrend in core inflation is principally the result of rising non-food group inflation during the past few months. On an year-on-year basis NFNE based core inflation increased to 6.9 percent in November 2007 (the highest since April 2006) from 5.9 percent in November 2006. Similarly core inflation based on 20 percent trimmed-mean accelerated to 8.6 percent in November 2007 compared to 6.5 percent in the same month last year (see **Table 1.2**).

As with CPI inflation, WPI also inflation accelerated sharply,

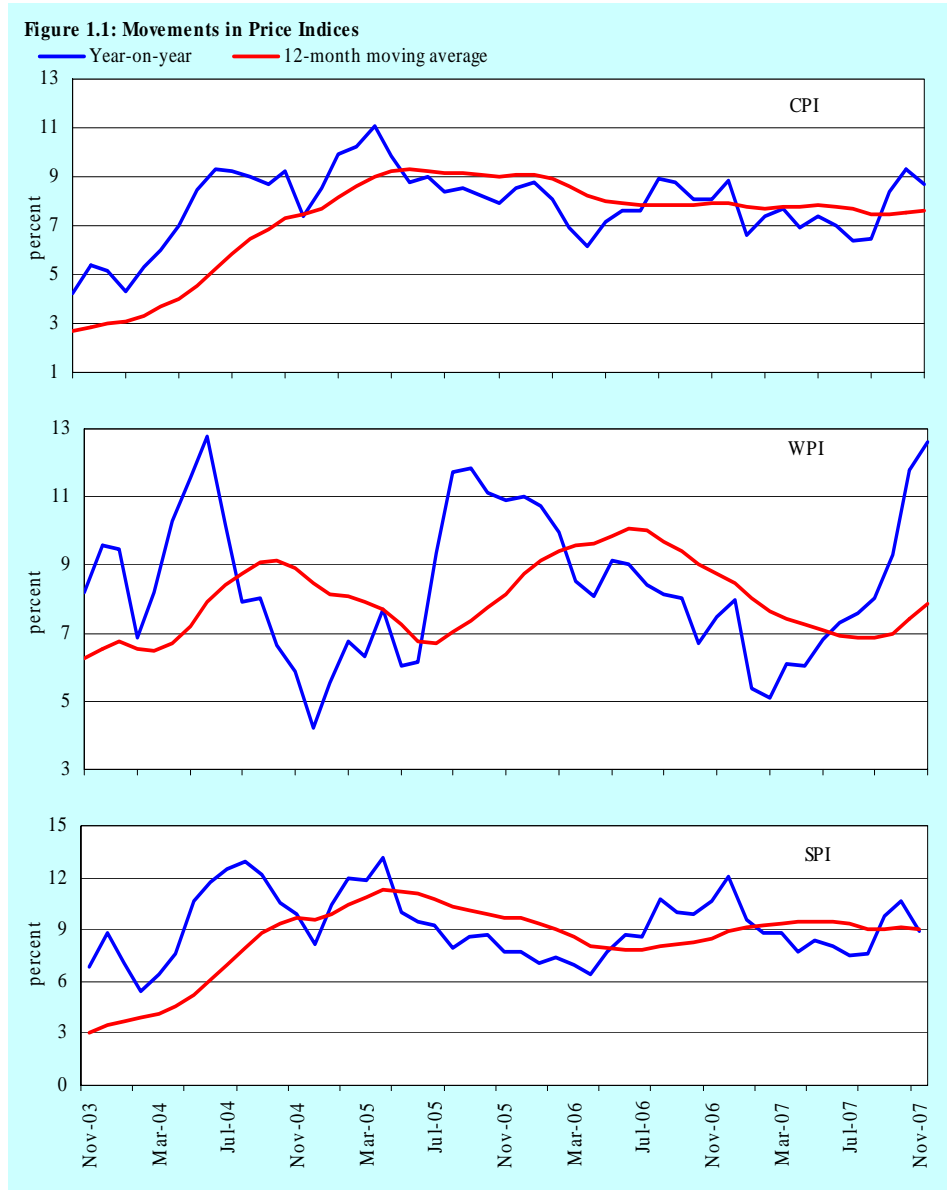
witnessing a double digit YoY rise for the second consecutive month. WPI inflation stood at 12.6 percent during November 2007– the highest level since July 2004. Both WPI food and non-food inflation contributed in this rise. 12-mma WPI inflation moved up further and was recorded at 7.9 percent in November 2007 compared to 7.4 percent during the preceding month. Contrary to the other measures of inflation i.e. CPI and WPI, the sensitive price indicator (SPI) exhibited a YoY deceleration in November 2007 and was recorded at 9.0 percent

Table 1.2: Different Dimensions of Inflation (percent)

	Nov-05	Nov-06	Nov-07	5-year average
<i>Year-on-year (Nov over Nov)</i>				
Overall CPI	7.9	8.1	8.7	7.6
Food group	5.8	10.6	12.5	9.6
Non-food group	9.4	6.3	5.9	6.3
Core Inflation				
NFNE*	8.0	5.9	6.9	6.1
Trimmed	7.4	6.5	8.6	6.7
<i>Period average (July-Nov over July-Nov)</i>				
Overall CPI	8.4	8.3	7.8	0.0
Food group	7.4	10.2	11.5	0.0
Non-food group	9.4	7.0	5.2	6.3
Core Inflation				
NFNE*	8.0	6.3	6.3	6.0
Trimmed	7.6	6.8	7.8	6.5
<i>12-month moving average</i>				
Overall CPI	9.0	7.9	7.6	6.9
Food group	9.9	8.1	10.8	8.3
Non-food group	8.4	7.7	5.3	5.9
Core Inflation				
NFNE*	7.8	6.8	5.9	5.7
Trimmed	8.3	6.7	7.1	6.2
<i>Monthly (Nov over Oct)</i>				
Overall CPI	0.8	0.7	0.1	0.9
Food group	1.3	1.4	-0.6	1.5
Non-food group	0.4	0.3	0.7	0.5
Core Inflation				
NFNE*	0.5	0.4	0.7	0.5
Trimmed	0.5	0.5	0.7	0.5

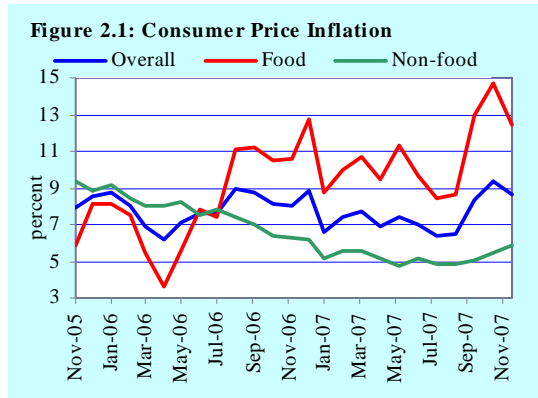
* NFNE is Non-food non-energy inflation

compared to 10.7 percent in the corresponding month of the previous year (see **Figure 1.1**).



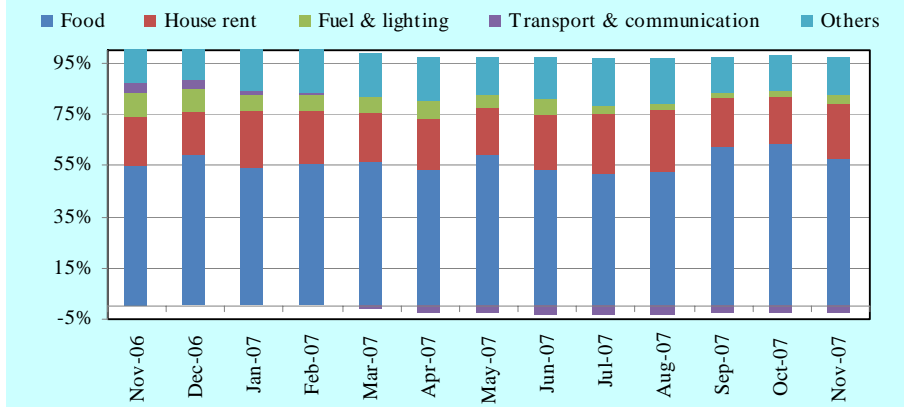
2. Consumer Price Inflation

Overall CPI growth on year on year (YoY) basis slowed to 8.7 percent in November 2007 after touching a 29-month peak of 9.3 percent in October 2007. However, it is still 0.6 percentage points higher than the CPI inflation recorded in the same month last year. This higher CPI inflation was entirely on account of food inflation that depicted a significant increase of 1.8



percentage points. Whereas non-food inflation showed decline of 0.4 percentage points in November 2007 (5.9 percent) compared to the same month (6.3 percent) last year. Similarly, food inflation (YoY) was recorded at 12.5 percent during the month under review compared to 10.6 percent in the corresponding month last year (see **Figure 2.1**).

Figure 2.2: Weighted Contribution to CPI Inflation (YoY)



Food inflation remained high and witnessed a double digit rise for the third consecutive month (from September to November 2007). As a result its contribution in overall inflation increased to 60.9 percent in November 2007, higher than the 55.4 percent contribution during July 2007. Accordingly, the contribution of non-food group in overall inflation dropped to 39.1 percent in November 2007 from 44.6 percent in July 2007. This was mainly on account of a decline in weighted contributions of *house rent*, *household furniture*, *education*

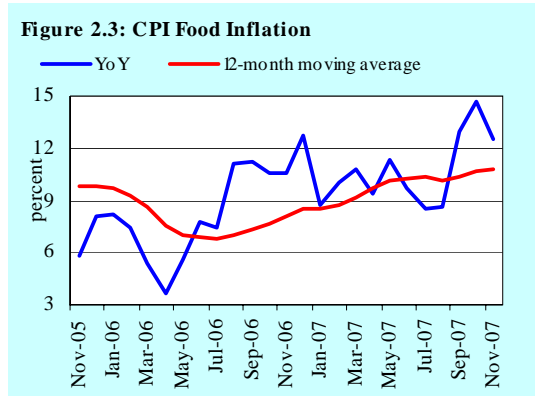
and medicare in overall inflation. The contribution of house rent index (the largest item of the CPI basket) dropped to 22.1 percent in November 2007 from 25.3 percent in July 2007 (see **Figure 2.2**). The drop in *fuel & lighting* inflation was because of the high base effect.

2.1 Food Inflation

Food prices continued to show strength and thus, on year-on-year basis, food inflation exhibited a double digit rise for the third consecutive month (from September 2007 to November 2007). While, the November 2007 food inflation of 12.5 percent was lower than the 30 month peak of 14.7 percent in October 2007.

However, this was significantly higher than 10.6 percent food inflation recorded in November 2006. This rise of 1.8 percentage points is mainly due to a sharp increase in the prices of some key food staples like rice, tomatoes, vegetable ghee, pulse masoor, tomatoes, wheat and eggs. Whereas the prices of some vegetables, pulses and some other food items declined or remained unchanged during the month of November which include potatoes, onion, basen, pulse gram, sugar etc.

Distribution of price changes of CPI food basket exhibits that out of the total 124 commodities included in the food group, 56 commodities including tomatoes, eggs, some fruits, cooking oil, pulse masoor, wheat, different types of rice and vegetable ghee exhibited double digit YoY inflation in the range of 10 to 58.5 percent in November 2007. The combined weight of food items with double digit inflation was about 60 percent of the food group. The most prominent upward movement was observed in the price of all four varieties of rice that showed significant increase in YoY inflation between 45 to 58.5 percent in November 2007. The recent increase in the prices of rice was due to an increased demand of Pakistani rice in the international market as Indian rice has become costlier¹. On the other hand, YoY inflation of 19 commodities including key staples such as onion, potatoes, sugar, basen, pulse gram, etc. either declined or remained unchanged during the month. The rest of the items, having an aggregate weight of

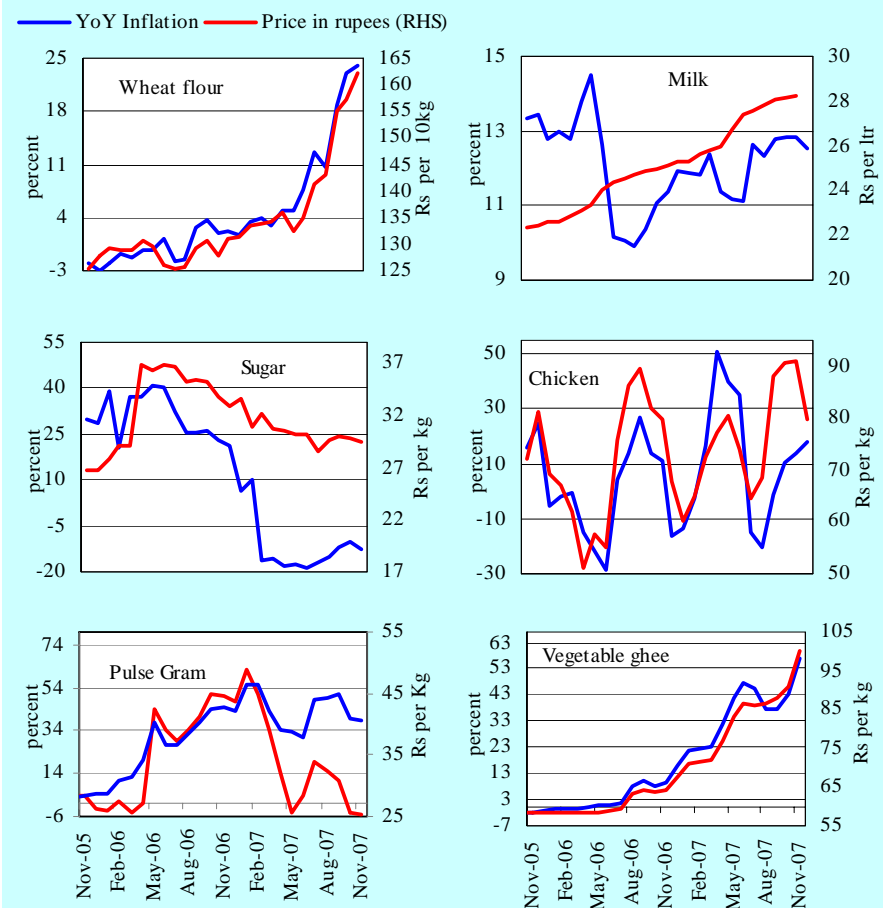


¹ Indian government has fixed the minimum price of rice for exports.

17.3 percent in the food group, exhibited subdued or moderate inflation (see **Table A2** in Annexure A).

On a month over month (MoM) basis, there was an increase in the average price of food items such as mustard oil, eggs farm, vegetable ghee, pulse masoor, wheat, maida and some fruits during November 2007 compared to October 2007; whereas the price of onion, potatoe, tomatoes, chicken declined (see **Figure 2.4**).

Figure 2.4: Price Trends in Key Food Items



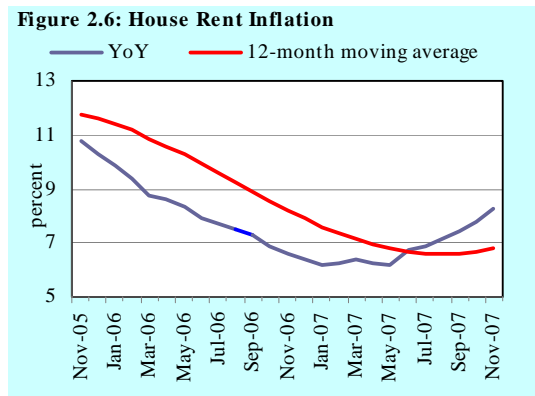
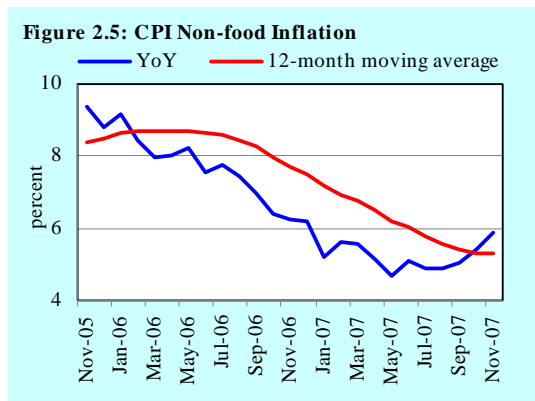
As discussed earlier, food inflation has had the greater impact to the high CPI inflation in recent months which is reflected in the fact that its contribution has increased significantly over the past few months. Similarly, the contribution of individual food items in the overall YoY CPI inflation has been significant, 7 out of top10 items were from the food group and contributed more than 54.5 percent in overall inflation during November 2007 which include wheat flour, vegetable ghee, fresh milk, rice, vegetables, fresh fruits and cooking oil (see **Table A3** in the annexure). This implies that the CPI inflation is not broad based as the food items having 20 percent of the total weight have contributed more than 54 percent in overall headline inflation during the month of November 2007. Moreover, within food groups, wheat, rice, ghee and milk contributed about 75 percent of the food inflation during November 2007.

2.2 Non-food Inflation

Although, YoY non-food inflation witnessed a slowdown during November 2007 relative to November 2006, it showed an up trend in recent months. Non-food inflation recorded a 1 percentage point rise since July 2007. The non-food inflation was recorded at 5.9 percent in November 2007 as compared to 5.4 percent in October 2007 (see **Figure 2.5**). This upward movement in non-food

inflation was attributed to a pickup in apparel & textile, house rent index, fuel & lighting and cleaning laundry subgroups' inflation during the last few months.

Further disaggregated analysis of non-food group reveal that inflation (YoY) in *apparel, textile & footwear* sub-group continued to rise for the sixth consecutive month starting from June 2007 and was recorded at 8.7 percent in November 2007, depicting a rise of 0.5 percentage points compared to the previous month. This significant



increase in the sub-group was mainly due to an increase in the price of almost all kinds of footwear and winter dresses as compared to November 2006.

The *house rent index* sub-group maintained its rising trend that started in May 2007 and depicted a higher YoY inflation of 8.3 percent in November 2007 compared to 6.6 percent in the same month last year. Rising wage inflation and higher prices of bricks, iron bars and wires & cables are specifically putting upward pressure on HRI inflation (see **Figure 2.6**).

Fuel & lighting sub-group inflation has also displayed a rise since September 2007 and witnessed an increase of 1.7 percentage points in November 2007 compared to September 2007 this pickup in inflation of this subgroup was the result of significant YoY rise in the prices of electricity, gas cylinder and firewood during the month under study.

The *cleaning, laundry & personal appearance* sub-group continued its uptrend for the sixth consecutive month and further accelerated to 8.8 percent in November 2007 compared to that of 4.1 percent during the corresponding month last year. YoY inflation in the *medicare* sub-group during November 2007- though slowed relative to November 2006- marginally picked up compared to the preceding month's inflation (see **Figure A1** in annexure).

Inflation (YoY) in *household furniture & equipment* sub-group decelerated and stood lower at 5.9 percent in November 2007 compared to the preceding month (6.3 percent) as well as compared to the same month last year (6.9 percent). *Transport & communication* sub-group witnessed disinflation and fell by 3.1 percent in November 2007 in contrast to a rise of 3.7 percent in the same month last year.

Inflation in *recreation & entertainment* sub-group remained almost stagnant at 0.3 percent in November 2007 compared to the preceding month as well as compared to the same month last year. YoY inflation in the *education* sub-group was recorded at 4.3 percent in November 2007 compared to that of 7.2 percent during the corresponding month last year.

Item wise detail of non-food group's inflation exhibits that out of the 250 non-food commodities included in the CPI basket, 27 commodities witnessed double digit inflation. These include items such as gas charges, gold and silver tezabi and doctors clinic fee, etc. There were 70 commodities that showed moderate inflation in the range of 5 to 10 percent; all other commodities witnessed either YoY deflation or inflation of less than 5 percent (see **Table A2** in the annexure). The commodities showing deflation included petrol super, urdu and english books, a

number of durable goods like telephone charges, computer CD rom, etc (see **Table A4** in the annexure).

2.3 City-wise Inflation

Like overall CPI, city-wise data was also exhibiting inflationary pressures as 25 out of 35 cities were found in the category of high inflation cities. Out of five selected cities², all cities (except Peshawar) showed deceleration in YoY inflation compared to the previous month. City-wise inflation in Islamabad, Lahore, Karachi and Quetta was recorded at 8.0, 7.0, 8.7 and 9.8 percent respectively in November 2007. In November 2007, Peshawar and Quetta were among the category of high inflation cities³, whereas Islamabad, Karachi, and Lahore were among the category of low inflation cities (see **Table 2.1**). Inflation in Karachi is at the national level during November 2007.

	Over all CPI	Islamabad	Lahore	Karachi	Quetta	Peshawar	percent
Nov-06	8.1	9.9	8.9	7.6	8.9	8.4	
Dec-06	8.9	10.5	7.9	9.0	10.2	9.3	
Jan-07	6.6	9.4	5.9	6.8	8.0	5.6	
Feb-07	7.4	9.6	7.4	7.5	7.4	6.3	
Mar-07	7.7	9.0	7.9	7.2	7.5	5.9	
Apr-07	6.9	8.1	7.2	6.5	7.9	5.8	
May-07	7.4	8.2	7.5	7.6	8.7	7.1	
Jun-07	7.0	7.8	6.9	7.4	7.6	7.7	
Jul-07	6.4	7.3	6.1	6.9	6.4	5.9	
Aug-07	6.5	7.8	6.5	7.7	7.1	5.7	
Sep-07	8.4	7.6	7.9	8.1	7.8	8.6	
Oct-07	9.3	8.6	7.8	10.0	10.1	9.5	
Nov-07	8.7	8.0	7.0	8.7	9.8	9.8	

The highest level of YoY inflation was recorded in Bahawalnagar (13.5 percent) followed by Bannu (13.1 percent) and Khuzdar (13.0 percent) during November 2007. On the other hand, the lowest YoY inflation was recorded in Okara (6.3 percent) during the month under review (see **Table 2.2**).

² Federal & provincial capitals.

³ Exhibited above average CPI inflation of 8.7 percent for the month.

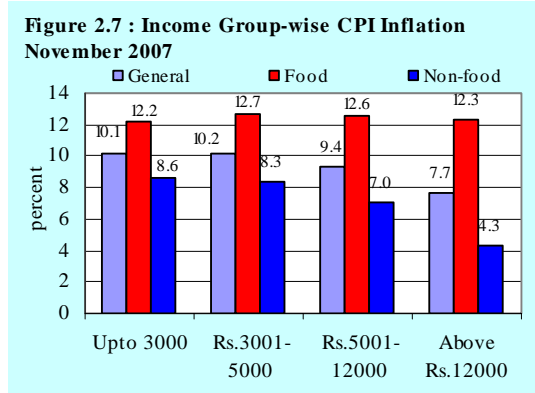
Table 2.2: City wise Inflation in CPI (YoY), November 2007

	High inflation cities				Low inflation cities		
	General	Food	Non-food		General	Food	Non-food
Bahawalnagar	13.5	15.1	12.3	D.I.Khan	8.4	10.0	7.2
Bannu	13.1	13.8	12.7	Faisalabad	8.3	15.1	3.3
Khuzdar	13.0	13.1	12.9	Sargodha	8.1	11.2	5.8
Gujranwala	12.3	17.0	8.9	Islamabad	8.0	10.0	6.7
Nawabshah	12.1	15.2	9.9	Sialkot	7.7	12.4	4.1
Mardan	12.1	16.7	8.7	Rawalpindi	7.6	9.2	6.4
Samundari	11.5	16.4	7.9	Lahore	7.0	10.8	4.1
Shahdadpur	11.2	13.6	9.4	Okara	6.3	8.3	4.8
Hyderabad	11.1	14.4	8.6				
Turbat	10.8	11.4	10.3				
D.G. Khan	10.7	14.8	7.5				
Mianwali	10.7	12.1	9.7				
Sukkur	10.4	14.2	7.8				
Vehari	10.3	12.7	8.5				
Peshawar	9.8	16.0	5.3				
Loralai	9.8	10.6	9.2				
Mirpur Khas	9.8	12.3	7.9				
Quetta	9.8	15.6	5.6				
Larkana	9.6	13.7	6.6				
Kunri	9.5	11.5	8.0				
Jhang	9.5	12.2	7.5				
Jhelum	9.3	11.2	8.0				
Attock	9.2	12.8	6.6				
Abbotabad	9.2	14.1	5.4				
Multan	8.9	13.5	5.4				
Karachi	8.7	13.9	5.0				
Bahawalpur	8.7	13.0	5.4				

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

2.4 Income Group-wise Inflation

The effect of downtrend in CPI inflation during the month of November was also realized in the case of incidence of inflation on all income groups. All four income groups displayed lower YoY inflation in November 2007 compared to October 2007. The data also revealed that YoY CPI inflation for less than Rs. 12000 per month earning groups was more than the average inflation for the month of November 2007 (see **Figure 2.7**).

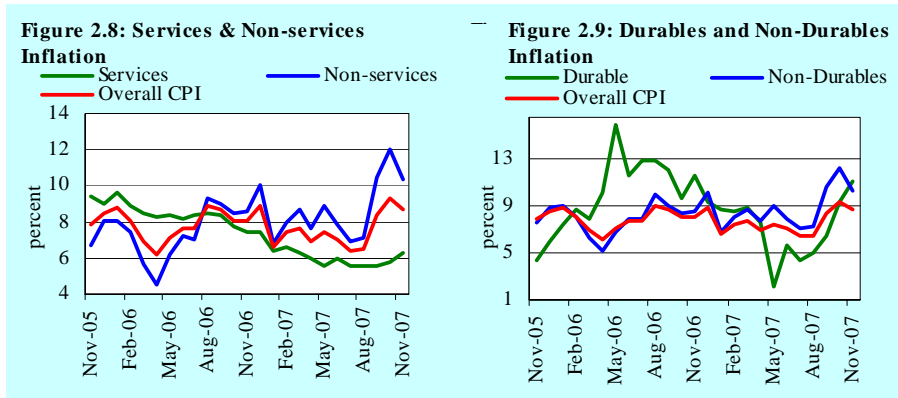


Like October 2007, the highest YoY CPI inflation was recorded for the income groups of up to Rs. 5000 that once again recorded double digit inflation, followed by income group of Rs. 5001 to 12000, while the highest income group of above Rs. 12000 experienced the lowest inflation in all categories. City-wise disaggregated income groups' inflation reveals that the lowest YoY inflation was recorded in Rawalpindi for income groups up to Rs. 3000 and in Sargodha for income groups Rs. 3001 to 5000. Lahore recorded the lowest inflation for the income groups of above Rs. 5000 per month earnings. While the highest YoY inflation was recorded in Gujranwala for all income groups except for the lowest income group where Quetta recorded the highest incidence of inflation (see **Table A5** in annexure A).

2.5 Services and Non-services Inflation

Inflation in services⁴ sector depicted a decline in November 2007 compared to the same month last year and was recorded at 6.3 percent during November 2007. On the other hand, YoY inflation in the non-services sector accelerated and was recorded at 10.4 percent during November 2007 as compared to 8.7 percent in November 2006. In comparison to the preceding month, YoY inflation in the services sector showed a moderate increase (from 5.8 to 6.3 percent), while inflation recorded in the non-services sector showed a decline of 1.7 percentage points (from 12.1 to 10.4 percent) (see **Figure 2.8**).

⁴ The services group of the CPI basket includes items like house rent index, electricity charges, marriage hall, household servant, transport fare, communication, recreation, tuition fees, laundry charges, hair cut & beauty parlor charges, doctor's fee, tailoring charges etc.

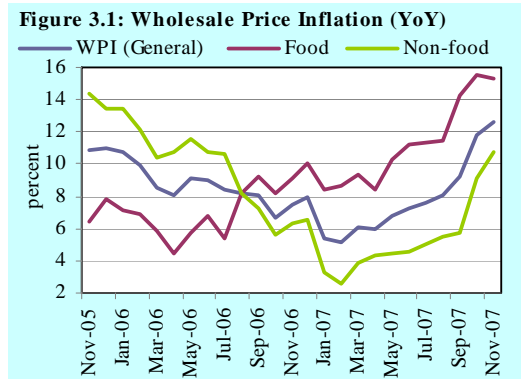


Further assessment of the non-services sector inflation reveals that YoY inflation in durable⁵ and non-durable goods displayed movements in opposite directions in November 2007. YoY inflation in the durable goods stood at 11.3 percent in November 2007 compared to 11.6 percent for the same month last year. Whereas non-durable goods' inflation surged sharply to 10.3 percent November 2007 compared to 6.9 percent in the same month last year (see **Figure 2.9**).

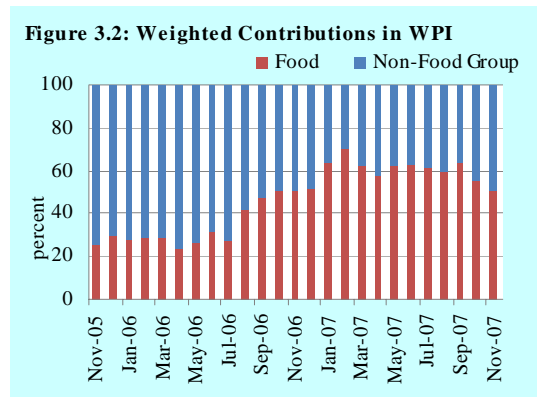
⁵ Durable items include suitcase, furniture, electric iron, fans, washing machines, sewing machines, clocks, needles, refrigerators, air conditioners, vehicles, computer & allied products, watches and jewelry, etc.

3. Wholesale Price Inflation

In November 2007, WPI inflation continued with the rising trend that started in May 2007, remaining in double digits for the second consecutive month. The WPI inflation (YoY) of 12.6 percent was the highest level since July 2004. Like previous months, this rise was contributed by both food and non-food inflation. Food and non food group rose to 15.3 percent and 10.7 percent during November 2007 compared to 9.1 percent and 6.3 percent respectively during the same month last year (see **Figure 3.1**). An important development was observed in non-food WPI inflation that has picked up pace from the last two months and exhibited double digit rise first time since August 2006.



The weighted contribution of food group's inflation in WPI inflation remained a little higher at 50.7 percent in November 2007 compared to 50.5 percent in November 2006. While the share of non-food group showed a slight decline as its contribution to overall WPI inflation was recorded at 49.3 percent in November 2007 (see **Figure 3.2**).



While analyzing overall WPI inflation, item-wise break-up shows that the prices of rice, vegetable ghee and oil, fresh milk, spices, hides, chemicals, footwear, wires and cables, etc. showed a rise of more than 10 percent. The prices of total 39 items depicted a growth of more than 10 percent with 12 items showing growth between 5 to 10 percent in their wholesale prices whereas 22 items showed subdued inflation and remaining 33 items showed deflation or no change.

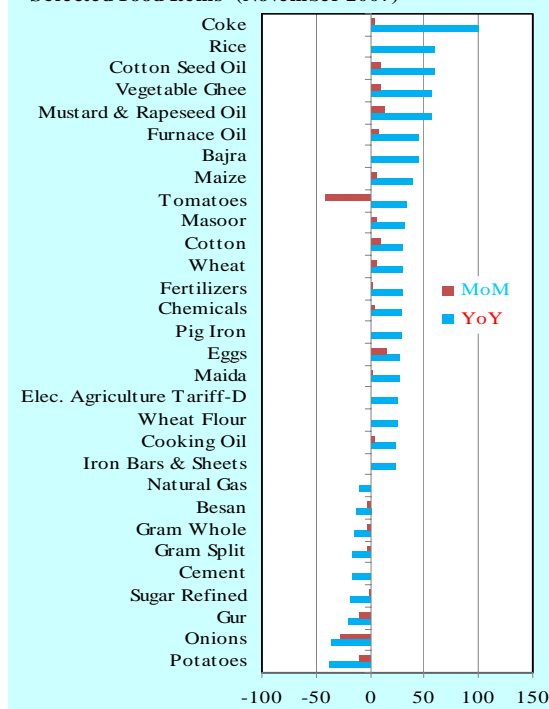
Table 3.1: WPI Price Distribution of YoY Changes (November 2007)

Groups	No. of Items				Total
	Decrease or no change	Up to 5%	5%-10%	More than 10%	
A. Food	12	5	5	21	43
B. Non-Food	21	17	7	18	63
Raw material	2	1	4	9	9
Fuel, Lighting and Lubricant	5			6	11
Manufactures	10	13	4	5	32
Building Material	4	2	2	3	11
Total	33	22	12	39	106

Within food sub-group, wholesale prices of 21 out of 43 food items witnessed a rise of more than 10 percent during November 2007. While 5 items recorded moderate inflation of 5 to 10 percent, the other 5 items recorded subdued inflation of up to 5 percent. The wholesale prices of the remaining 12 food items declined or remained stable (see **Table 3.1**).

The prices of 18 items saw a rise of more than 10 percent in WPI non-food sub-group, 17 items showed growth up to 5 percent, 21 items experienced decrease or no change and the remaining 7 items showed moderate inflation, i.e. 5 to 10 percent (see **Table 3.1**).

Figure 3.3: Wholesale Price Inflation (%) in Selected Food Items (November 2007)



WPI food inflation maintained its strong growth recorded at 15.3 percent during November 2007. In the food group, the wholesale prices of rice, cotton seed oil, vegetable ghee and mustard & rapeseed oil exhibited an increase of more than 50 percent, while masoor, tomatoes, maiz and bajra recorded an increase of more than 30 percent each during November 2007. On the other hand, prices of potatoes, onions, gur, sugar refined, gram split, gram whole and beans witnessed a YoY decline ranging from 14.0 to 38.0 percent in November 2007 (see **Figure 3.3**).

WPI non-food inflation (YoY) showed a sharp increase and was recorded at 10.7 percent in November 2007 compared to 6.3 percent during the same month last year. All sub-groups of the WPI non-food group showed significant acceleration in November 2007 compared to the same month last year (see **Figure 3.4**).

Prices of furnace oil, cotton, fertilizers, wires and cables, pig iron, chemicals, electricity tariff-D, hides, iron bars, soaps, bricks, displayed YoY growth between 10 to 45 percent in November 2007. Coke is the only item which showed 100 percent YoY inflation. Whereas YoY deflation was recorded in the prices of cement, gas and motor spirit during November 2007 (see

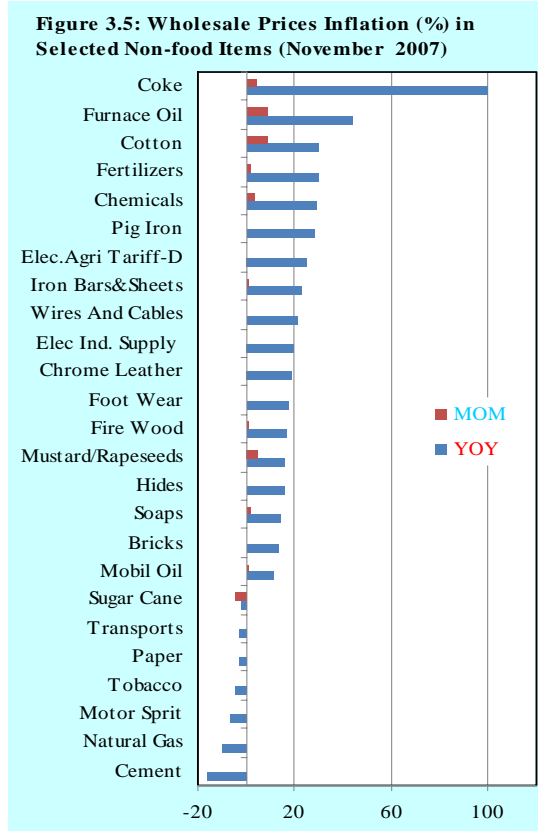
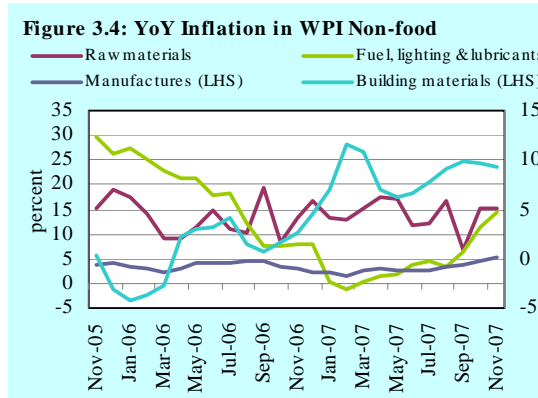


Figure 3.5).

The wholesale prices of *raw material* sub-group accelerated sharply and recorded a growth of 15.0 percent on YoY basis during the month under review. This rise is significantly higher than 13.2 percent inflation in the same last year. Cotton showed a considerable increase in their prices during November 2007 compared to the same month last year. While tobacco showed a decline in prices and a YoY deflation of 4.7 percent was recorded in November 2007. The prices of pig iron, hides, and mustard rapeseeds increased and exhibited double digit YoY growth during November 2007.

The wholesale prices of *fuel, lightning & lubricants* sub-group also witnessed a sharp YoY growth of 14.4 percent during November 2007 compared to 7.9 percent growth in the corresponding month last year. Within this group, 6 items coke, mobil oil, furnace oil, fire wood, electricity industrial supply tariff-B and electricity agriculture tariff-D witnessed double digit (YoY) growth during November 2007. The remaining 5 items (natural gas, motor spirit, diesel oil, coal and kerosene oil) showed decrease or no change in their wholesale prices (see **Table A7** in Annexure A).

The wholesale prices of *manufactures* sub-group showed a growth of 5.3 percent in November 2007 compared to 3.1 percent in November 2006. In this sub-group, chemicals, footwear, fertilizers, soaps and chrome leather experienced a strong rise in their prices. Out of the 32 items in the *manufactures* sub-group, 10 recorded decline or no change, the other 13 items exhibited subdued growth of up to 5 percent and the remaining 4 items recorded a YoY growth of more than 5 percent in their prices during the month under review (see **Table A7** in Annexure A).

The growth of 9.3 percent in the wholesale prices of *building material* sub-group during November 2007 is significantly higher compared to 2.6 percent inflation during the same month last year. This was primarily due to the double digit rise in the wholesale prices of bricks, iron bars and sheets, and wires and cables during the month under review, which more than offset the impact of a YoY decline in the prices of cement (see **Table A7** in Annexure A).

4. Global Commodity Prices

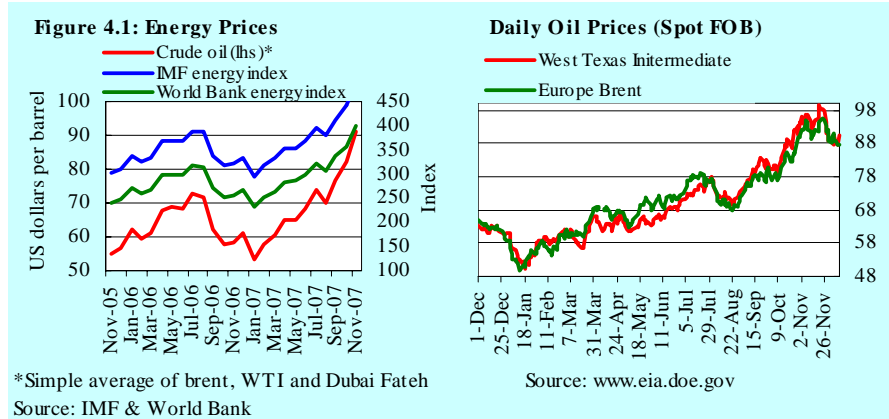
Commodity prices in the international market remained strong in November 2007 compared to the same month last year as well as to the preceding month. This upward movement in the global commodity prices was a result of an increase in the prices of food, energy and non-energy groups. Energy prices, as reflected by crude oil, as well as the IMF and World Bank energy indices, showed strong upward movements (see **Figure 4.1**). This was due to tight market for light crude, declining stocks-particularly at Cushing Oklahoma, the delivery point of WTI, as well as the effect of options trading and fear of supply disruption⁶. In the food group, prices of most of the major staples including rice and edible oils (soybean and palm) showed higher YoY growth in November 2007 compared to the same month last year. In non-food non-energy group, cotton, steel and urea prices also showed an increase, while DAP prices showed a significant increase in November 2007 (see **Table 4.1**).

	Nov 06	Sep 07	Oct 07	Nov 07
Energy				
Crude Oil (US\$ per barrel)	58.1	76.9	82.2	91.3
IMF Energy Index (1995=100)	320.2	412.6	441.3	487.7
WB Energy Index (1990=100)	254.1	335.5	358.3	399.2
Coal (\$/MT)	49.3	73.3	80.2	88.9
Food (\$/MT)				
Rice	300.6	330.0	335.3	356.5
Wheat	205.8	326.5	335.1	321.8
Sugar	11.7	9.9	10.0	9.9
Palm Oil	476.7	745.2	824.1	877.3
Soybean Oil	623.6	852.7	879.9	988.0
Sunflower Oil	673.0	673.0	673.0	673.0
Non-Food Non-Energy				
Cotton Outlook 'A' Index #	126.5	150.2	150.9	154.0
WB Steel Products Index (1990=100)	131.5	135.3	139.8	140.3
DAP (\$/MT)	253.5	431.9	451.3	521.0
Urea (\$/MT)	235.6	314.0	333.7	377.1

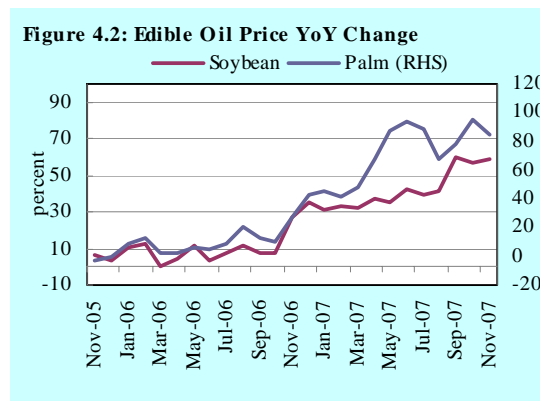
\$/MT = US\$ per metric tonne.
 # Middling 1-3/32 inch staple, Liverpool Index "A", average of the cheapest Cts/lb five of fourteen styles, CIF Liverpool (Cotton Outlook, Liverpool).
 From January 1968 to May 1981 strict middling 1-1/16 inch staple. Prior to 1968, Mexican 1-1/16. 2/
 Source: IMF and World Bank.

In November 2007, the crude oil prices touched highs of above US\$ 99 per barrel largely on expectations of continued market tightening, declining stocks particularly at Cushing Oklahoma (the delivery point of WTI), as well as the effect of options trading and increasing fears of disruption of supply, according to World Bank report. The spot crude oil price in the international market fluctuated between the ranges of US\$ 88.6 – US\$ 99.2 per barrel during the month under review compared to US\$ 79 – US\$ 94.2 per barrel during the previous month.

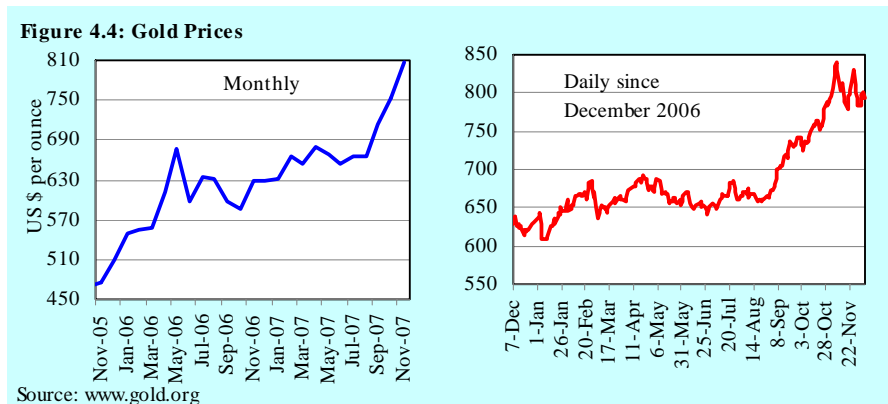
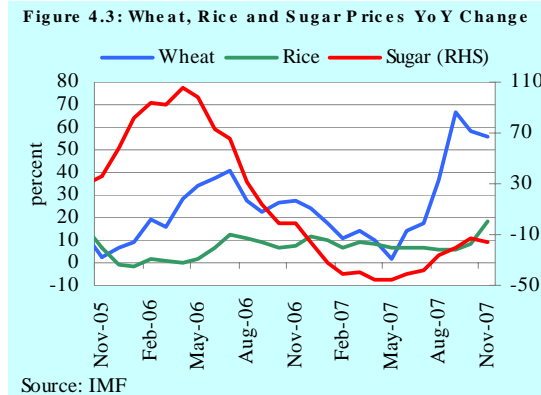
⁶ World Bank Commodity Market Review, December 10, 2007.



Palm and soybean oil prices continued to reflect strong YoY growth registering steep rises of 84.0 and 58.4 percent respectively in November 2007 compared to 26.8 and 27.3 percent in the same month last year. According to the World Bank commodity markets review, increase in soybean oil prices is due to the higher demand for biodiesel (made from vegetable oils) and for livestock feed in response to higher prices for other feeds such as maize. On the other hand, the increase in palm oil price is due to strong import demand from China and India. Palm oil stocks in Indonesia, the world's largest supplier, are at their lowest levels in years, fueling concerns that prices may increase even further. On a month-on-month basis, the palm oil prices decreased by 5.6 percent while soybean oil prices increased by 12.3 percent (see **Figure 4.2**).



Among other food staples, wheat prices continued to accelerate in November 2007 and exhibited a sharp YoY growth of 56.2 percent compared to 27.9 percent during the same month last year. Similarly, the price of rice in the international market exhibited a significant YoY increase of 18.6 percent in November 2007 compared to 7.8 percent in November 2006. However, sugar prices continued to decline in November 2007, falling by 15.6 percent in the month under review (see **Figure 4.3**).



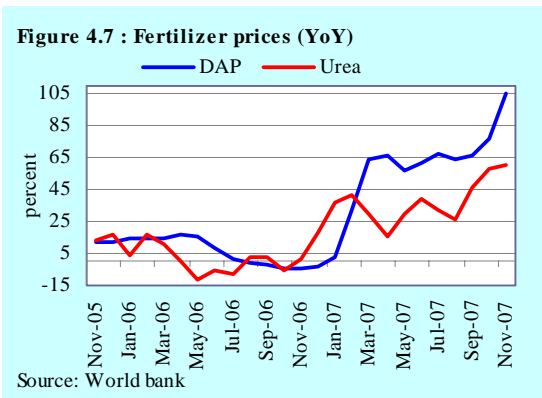
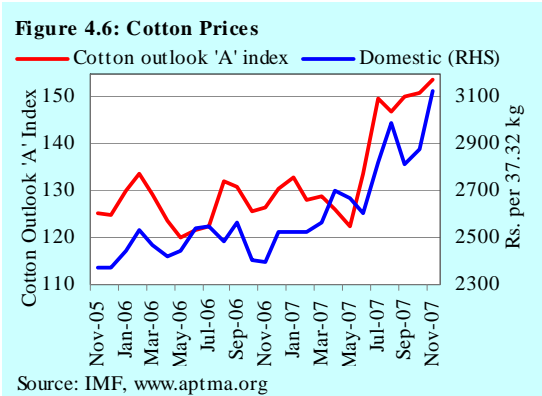
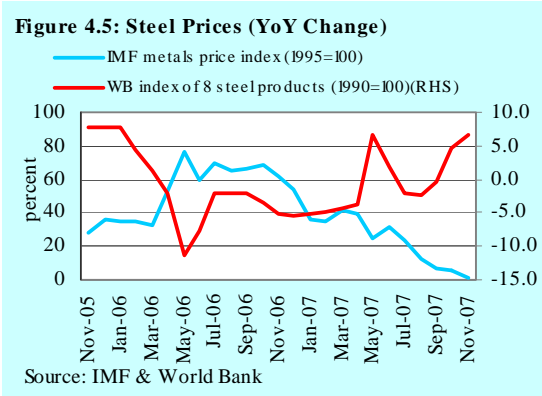
Gold prices in the international market remained strong at US\$ 806.2 per ounce in November 2007 and exhibited a YoY growth of 28.4 percent. According to the World Bank commodity market review the reason for high price of gold in the international market are falling dollar and spiraling oil prices. On a daily basis, gold price remained higher and fluctuated in a wider range, between US\$ 608 per ounce and US\$ 841 per ounce (see **Figure 4.4**).

In the international markets, metal prices represented by the World Bank index of 8-steel products, showed YoY growth of 6.7 percent in November 2007. While YoY growth in IMF metals price index showed a decline and was recorded at 1.5

percent as compared to 5.5 percent YoY growth in the previous month. This slower growth was mainly due to decline in prices of lead, copper and zinc. In November 2007 the price of lead fell by 10.5 percent on rising stocks and expectation that suspended production from the Magellan mine in Australia will be allowed to resume in the first quarter of 2008. Copper prices dropped by 13.0 percent on rising inventories and concerns about slowing economic growth and copper demand. Zinc prices plunged 14.6 percent on high consumer stocks of galvanized steel, and anticipation of large zinc supply increases next year⁷ (see **Figure 4.5**).

Cotton prices in the international markets represented by the cotton outlook A index increased significantly by 21.7 percent (YoY) in November 2007. Similarly, cotton prices in the domestic market rose significantly by 30.3 percent (YoY) during the month under review. On monthly basis the cotton outlook A index rose by 2.0 percent (see **Figure 4.6**).

Like previous month, the fertilizer prices remained



⁷ World Bank Commodity Market Review, December 10, 2007

strong in November 2007. Both DAP⁸ and urea prices exhibited sharp YoY growth of 105.5 and 60.1 percent respectively. This rise in price levels was due to higher energy and crop prices which have driven up production costs and demand for both fertilizers⁹. Similarly on monthly basis, prices of both DAP and urea registered growth of 15.4 & 13.0 percent respectively (see **Figure 4.7**).

⁸ DAP: Diammonium Phosphate

⁹ World Bank Commodity Market Review, December 10, 2007

5. Sensitive Price Indicator

The sensitive price indicator (SPI) showed an ease in inflation and rose by 9 percent YoY in November 2007 as compared to 10.7 percent YoY growth recorded in the corresponding month last year. The long-run trend indicated by 12-month moving average also showed a slight decrease in SPI inflation during the month under review, recording 9 percent inflation as compared to 9.1 percent in the previous month (see **Figure 5.1**).

Figure 5.1: SPI Inflation (YoY)

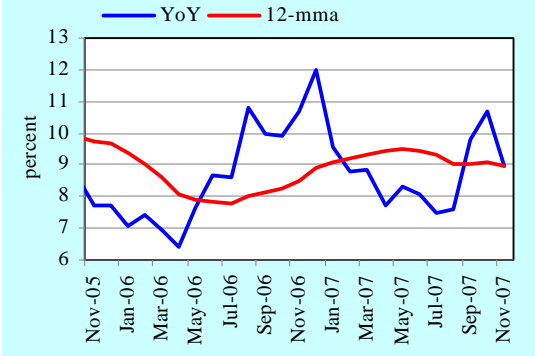
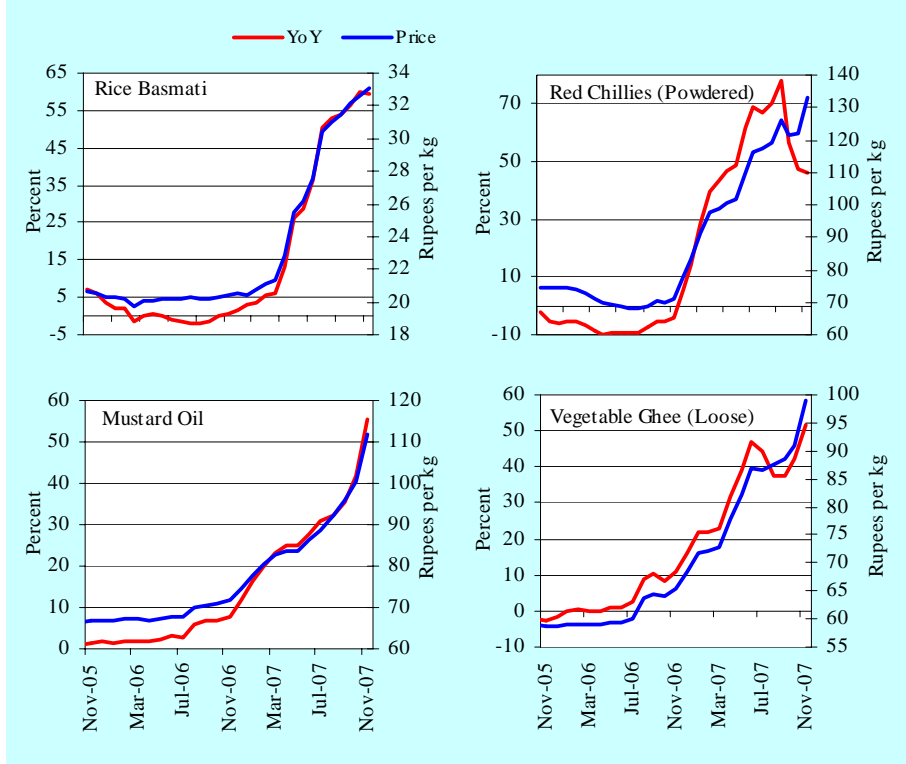


Figure 5.2: SPI Inflation (YoY) in selected Items

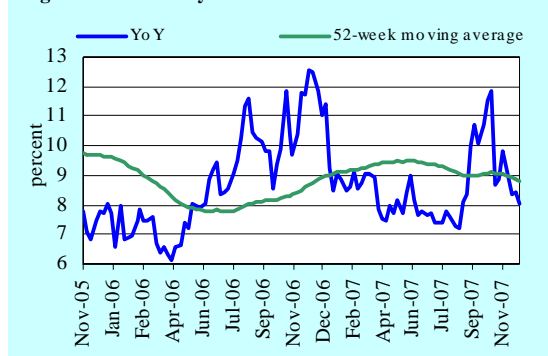


The major items contributing to the SPI inflation were rice, mustard oil, vegetable ghee, pulse masur and red chilies (see **Figure 5.2**). In the SPI basket, 26 items recorded higher YoY inflation than the average level of 9 percent during November 2007. The remaining 27 items recorded lower YoY inflation than the average level of 9 percent with 12 items including sugar, gur, potatoes, onions and garlic etc showing negative growth.

Compared to the prices of the previous month, almost 40 percent items included in the SPI basket witnessed either a decline or no change in the price level. On the other hand only one item, i.e. mustard oil, showed double digit growth in inflation compared with the previous month (see **Table A8** in Annexure A).

Weekly SPI showed mixed trends in YoY inflation during the month under review and fluctuated between the range of 8.4 percent to 9.8 percent. Thus, after recording a weekly YoY SPI inflation of 8.7 percent in the last week of October 2007, SPI inflation increased to 9.8 percent by the second week of the month under review. However since the second week of November 2007, SPI has witnessed a decrease in weekly YoY inflation and was recorded 8.4 percent in the last week of the month under review. The long-run trend indicated by 52-week moving average remained stable around the 9 percent mark after continuously decreasing since June 2007 (see **Figure 5.3**).

Figure 5.3: Weekly SPI Inflation



During the month under review, the incidence of inflation was the highest in the lowest income group. On the other end, the least affected group was the highest income group with YoY inflation maintaining single digit growth since January 2007 (see **Table 5.1**). This is because most of the items showing high inflation are from the food group and thus are more significant for the lowest income group as compared to other income groups. The income group-wise SPI inflation also reveals that all income groups showed a decrease in inflation as compared to the previous month.

Table 5.1 : Income Group-wise SPI Inflation (YoY)

	percent				
	Up to Rs. 3000	Rs. 3001-5000	Rs. 5000-12000	Above Rs. 12000	All income groups
Nov-06	13.4	12.7	12.2	10.1	10.7
Dec-06	14.5	14.0	13.6	11.2	12.0
Jan-07	12.1	11.3	10.7	8.5	9.5
Feb-07	10.6	10.0	9.7	7.8	8.8
Mar-07	9.7	9.5	9.4	8.0	8.9
Apr-07	8.3	8.3	8.2	6.9	7.7
May-07	9.1	9.3	9.0	7.0	8.3
Jun-07	9.7	9.6	8.9	6.2	8.0
Jul-07	9.8	9.4	8.3	5.2	7.5
Aug-07	9.2	9.0	8.1	5.5	7.6
Sep-07	11.6	11.5	10.6	7.3	9.8
Oct-07	12.7	12.6	11.6	8.2	10.7
Nov-07	11.0	10.9	9.9	6.9	9.0

6. Wage Inflation in Construction Sector

Nominal wages in construction sector accelerated in November 2007 and was recorded at 16.6 percent on YoY basis compared to 14.9 percent in the preceding month. Moreover this 16.9 percent YoY wage inflation in November 2007 is also greater than the 13.0 percent wage inflation recorded in the same month last year.

This acceleration in inflation

was mainly due to rising wages for skilled workers which showed higher inflation compared to both the previous month as well as the same month last year (see **Figure 6.1** and **Table 6.1**). The long run trend of nominal wage inflation, measured by 12 month moving average also increased and was recorded at 13.6 percent after continuously remaining on a downward trend during the last 12 months.

Figure 6.1: Wage Inflation

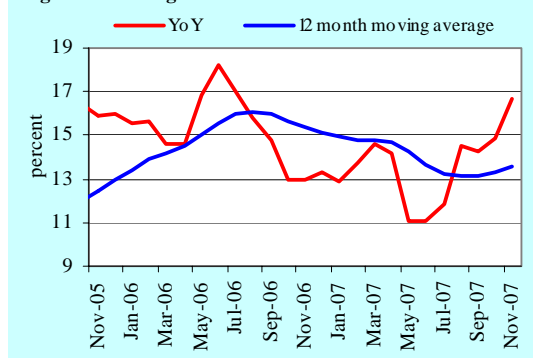
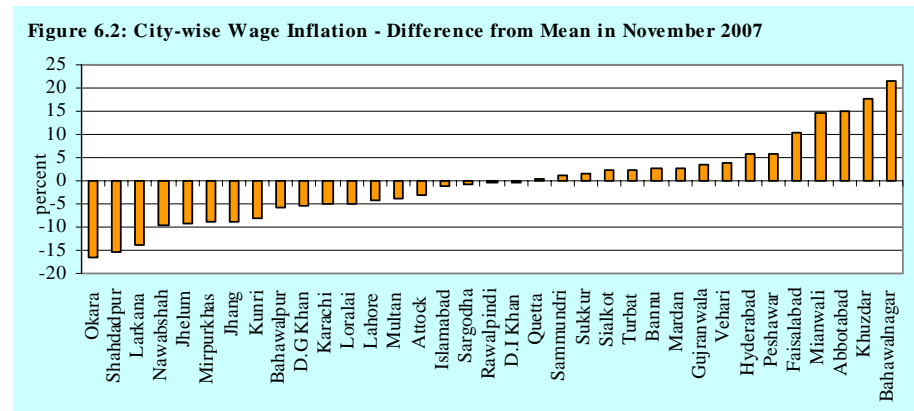


Table 6.1: Wage Inflation (YoY)

	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07
	percent							
Overall	14.2	11.1	11.1	11.8	14.5	14.2	14.9	16.6
Skilled:	13.8	10.5	10.4	11.4	14.2	14.0	14.8	16.9
Carpenter	13.7	12.8	11.9	11.9	14.8	13.6	14.4	17.5
Mason	16.0	14.2	13.5	13.4	15.9	16.6	17.1	17.6
Plumber	11.2	9.8	10.9	12.1	15.0	14.3	15.2	16.8
Electrician	14.1	5.2	5.3	8.1	11.1	11.6	12.6	15.7
Unskilled:	16.8	14.9	15.6	14.8	16.4	15.3	14.8	14.6
Laborer	16.8	14.9	15.6	14.8	16.4	15.3	14.8	14.6

Figure 6.2 presents the picture of city wise deviation in wages from mean during the month under review. Out of 35 cities, 16 cities recorded higher than average wage inflation and the remaining 19 cities witnessed lower than average inflation. The highest wage inflation was observed in Bahawalnagar followed by Khuzdar and Abbottabad, whereas Okara, Shahdadpur, Larkana etc., showed lowest YoY changes in the wages during November 2007.



Annexure A

	Weights	Nov-03	Nov-04	Nov-05	Nov-06	Nov-07
I. Food Group	40.3	5.4	13.6	5.8	10.6	12.5
II. Non-Food Group	59.7	3.4	6.3	9.4	6.3	5.9
Apparel, textile, etc.	6.1	4.4	2.6	4.0	3.6	8.7
House rent	23.4	3.2	11.2	10.8	6.6	8.3
Fuel & lighting	7.3	3.3	1.9	7.5	10.5	4.8
Household furniture & equipt	3.3	2.7	6.2	5.2	6.9	5.9
Transport & com.	7.3	5.2	4.1	22.7	3.7	-3.1
Recreation & entert.	0.8	-2.6	0.2	-0.4	0.2	0.3
Education	3.5	4.3	2.6	6.6	7.2	4.3
Cleaning, laundry, etc.	5.9	2.6	5.2	2.4	4.1	8.8
Medicare	2.1	2.3	1.0	1.6	9.7	7.9
Headline	100	4.2	9.3	7.9	8.1	8.7

Groups	% Changes	Total Number of Items	No. of Items in each Inflation Range			
			Decrease or no change (0 % or less)	Subdued increase (0 to 5%)	Moderate increase (5 to 10%)	Double digit increase (over 10%)
I. Food Group	12.5	112	22	9	25	56
II. Non-Food Group	5.9	250	70	83	70	27
Apparel, textile, etc.	8.7	42	2	17	19	4
House rent	8.3	1			1	
Fuel & lighting	4.8	15	7		2	6
Household furniture & equipt	5.9	44	2	15	25	2
Transport & com.	-3.1	43	22	13	6	2
Recreation & entert.	0.3	16	10	3	1	2
Education	4.3	24	8	8	6	2
Cleaning, laundry, etc.	8.8	36	1	19	9	7
Medicines	7.9	29	18	8	1	2
Overall	8.7	362	92	92	95	83

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

Table A3: Top Ten Contribution to YoY CPI Inflation in November 2007

Items	weights	YoY change		Weighted Contribution
		Nov-06	Nov-07	
A. Ranked by Weighted Contribution				
1 House Rent Index	23.43	6.88	7.81	19.43
2 Wheat Flour	5.11	1.81	22.85	11.87
3 Vegetable Ghee	2.67	6.77	36.82	10.39
4 Milk Fresh	6.66	11.29	12.98	9.75
5 Rice	1.34	2.77	55.85	7.19
6 Tomatoes	0.50	83.51	100.08	5.99
7 Onions	0.64	42.24	46.31	4.02
8 Electricity	4.37	0.00	10.07	3.64
9 Vegetables	1.80	10.72	12.55	3.18
10 Meat	2.70	12.61	6.36	2.72
Total	49.21	-	-	78.18
B. Ranked by Percentage Change				
1 Tomatoes	0.50	83.51	100.08	5.99
2 Rice	1.34	2.77	55.85	7.19
3 Onions	0.64	42.24	46.31	4.02
4 Mustard Oil	0.05	8.98	38.25	0.17
5 Vegetable Ghee	2.67	6.77	36.82	10.39
6 Eggs	0.41	-15.00	36.50	1.50
7 Milk Powder	0.11	3.90	30.09	0.33
8 Pulse Masoor	0.22	-4.67	29.31	0.58
9 Cooking Oil	0.69	5.04	29.04	2.03
10 Wheat	0.48	3.09	23.09	1.15
Total	7.09	-	-	33.35
C. Ranked by Weights				
1 House Rent Index	23.43	6.88	7.81	19.43
2 Milk Fresh	6.66	11.29	12.98	9.75
3 Wheat Flour	5.11	1.81	22.85	11.87
4 Electricity	4.37	0.00	10.07	3.64
5 Bakery & Confectionary	2.98	5.06	3.97	1.06
6 Meat	2.70	12.61	6.36	2.72
7 Vegetable Ghee	2.67	6.77	36.82	10.39
8 Tution Fees	2.36	8.56	4.84	1.20
9 Transport Fare/Charges	2.12	3.58	1.74	0.48
10 Natural Gas	2.05	25.66	-5.90	-2.04
Total	54.45	-	-	58.50

Note: Weighted contribution is estimated by multiplying the weights by the price change of an item; this is then reported as a share in YoY change in CPI, which is 8.7 percent in November 2007.

Table A4: Distribution of Price Changes - Selected CPI Items, November 2007

Groups	Decrease or no change	Subdued increase (upto 5%)	Moderate increase (5 to 10%)	Increase of over 10%
Food Group	Gur Av.Qlty	Beef With Bone Av.Qlty.	Custard Powder Rafhan 300 Gm	Bread Plain Medium Size
	Sugar Refined	Tinda	Cooked Mutton (Av. Hotel)	Maida
	Pomegranate (Annar)	Cuminseed White	Biscuits-Packed	Turmeric Powd.National
	Besan Av. Qlty.	National	Cooked Dal (Av. Hotel)	250Gm
	Tea(L/R)	Cooked Beef (Av. Hotel)	Cardamom Large Loose	Cooking Oil (Dalda)
	Brookbond	Salt-Powdered (Lahori)	Av.Qlty	Chillies Powd.National
	Supreme 250Gm.	Loose	Sweetmeat (Mixed)	200Gm
	Cauliflower	Fish-Rahu Medium Size	Cold Drink (Standard Siz)	Rice Basmati Broken
			Cigarettes Capstan	Av.Qlty
			10'S	Cabbage
Apparel & Textile	Chaddar (W/Wear) (2X2.5 Mtr)	Vest For Men Av.Qlty. Heavy Wt. Suiting	Tailoring Coat-Pant Suit	
	School Uni. Kameez,Shal.Boys	Law.Pur Shoe Repair Half Sole	Tailoring Suit Female Gents Shoe, Art 1109 Service	Fuel And Lighting.
House Rent Index			House rent index	
Fuel & Lighting	Kerosene Oil,Bulb Philips 100-Watts,Elect.Charges Above 1000 Uni			Carpet Plain Av. Qlty,Sewing Machine(Singer),Electric Juicer For Apple
			Firewood Whole	
H/hold Furniture	Wall Clock Quartz Av.Qlty,Sewing Thread/Reel(Asli Pari	S.Steel Deghchi Medium Size,Farshi Dari 12'X9' Av.Qlty,Water Cooler 9/10 Ltr.Plasti	Dinner Set Plastic 35 Pcs.,Gas Burner Double Spfy.Brand,Table Shesham Wood	Tel Charges Out Side City,Petrol Super Motorcycle Honda Cd-70.
Transport & Comm.	High Speed Diesel Hsd	Suzuki Fare Min.With In City	Motor Cycle Service Charges	
	Bus Fare Min (Within City)	Tyre Car With Tube General	Tyre Motor Cycle Without Tub	
	Bus Fare Outside City	Tyre Cycle Specify Brand Nam	Air Fare Economy Class.	Daily "Jang"
	Train Fare Eco. 1-100 Km.	Train Fare A/C Slp > 500Km.	Daily "Dawn"	Daily "Nawa-E-Waqt"
Recreation & Entertainment	Weekly "Mag"			
	Monthly "Naunehal Digest"	Cinema Non-A/C High Class		Urdu Book Class V (T.B.Bord)
	Dry Cell 1.5 Volt(Local)	Tv.Licence Feedomestic Education.	Urdu Book Ist.Year/Inter	English Book Class V1
Education	Govt. Med. College Fee Mbbs	Pencilgoldfish/Deer	Exercise.Book Lined 80/100 P	
	Comp. With Printer & Speaker	Govt. University Fee Msc.	Paper Foolscape (27"X17")	Lipstick S.Miss/Medora
	Govt. College Fee Ist. Year	Maths Book Calss V (T.B.B)	Ball Pen (Local)	Hair-Colour Begin (6 Gms)
Cleaning & Laundry		Blade 7-O-Clock Stain. 5'S	Washing Ch. Shirt	Toilet Soap Lux 95 Grams
		Nail Polish S.Miss/Medora	Shampoo Plain Medora 200 Ml.	Toilet Soap Lifebouy 140 Grm
		Facecream Ponds (Medium)	Washing Soap Nyl(135-160Gms)	Panadol Tab. Extra/Plain
		Wrist Watch Gents Citizen	Robin Blue (35 Grams)	Ventolin Tab. 2Mg.
Medicare	Renitec Tab. 5 Mg.			
	Cac. 1000 Tab Calcium Syrup Sandoz	O.R.S. (Nimcol) Cotton Bandage 2" - 4" Thermometer China		Doctor (Mbbs) Clinic Fee

Table A5: City-wise Inflation (YoY) by Income Groups, November 2007

		Upto Rs:3000			Rs 3001-5000		
		General	Food	Non-Food	General	Food	Non-Food
1	Lahore	7.1	8.7	6.0	7.8	10.2	6.3
2	Faisalabad	8.8	14.2	5.2	9.6	14.0	6.7
3	Rawalpindi	7.3	7.7	7.1	7.8	8.6	7.3
4	Multan	10.2	13.2	8.1	10.3	14.1	7.7
5	Gujranwala	11.3	15.5	8.5	12.7	16.8	9.9
6	Islamabad	9.4	10.2	8.8	9.3	9.9	9.0
7	Sargodha	9.3	12.2	7.3	9.0	12.0	7.0
8	Sialkot	9.3	13.8	6.2	8.8	12.6	6.3
9	Bahawalpur	9.5	11.8	7.9	9.9	12.9	7.9
10	Karachi	9.5	13.2	6.9	9.7	13.8	7.0
11	Hyderabad	11.2	13.3	9.7	11.4	14.1	9.6
12	Sukkur	11.3	14.8	8.9	11.1	14.7	8.7
13	Larkana	9.9	13.6	7.4	10.4	13.8	8.0
14	Peshawar	11.4	15.0	8.9	12.3	16.8	9.3
15	Bannu	12.8	13.2	12.4	13.5	13.3	13.7
16	Quetta	12.8	17.0	10.0	10.9	15.7	7.6
17	Khuzdar	9.6	9.1	9.9	10.9	10.9	10.8
		Rs 5001-12000			above Rs 12000		
		General	Food	Non-Food	General	Food	Non-Food
1	Lahore	7.5	10.8	5.3	6.4	10.9	3.3
2	Faisalabad	9.2	14.8	5.4	7.5	15.6	2.0
3	Rawalpindi	7.9	9.0	7.1	7.3	9.7	5.6
4	Multan	9.4	13.9	6.4	7.6	12.5	4.3
5	Gujranwala	12.6	17.2	9.4	11.6	16.8	8.1
6	Islamabad	8.9	10.1	8.2	7.9	10.0	6.5
7	Sargodha	8.5	11.1	6.7	6.7	11.0	3.8
8	Sialkot	8.2	12.6	5.2	7.2	12.3	3.8
9	Bahawalpur	9.1	13.3	6.2	7.3	13.1	3.3
10	Karachi	9.5	13.7	6.7	7.8	14.2	3.4
11	Hyderabad	11.4	14.8	9.2	9.9	13.5	7.5
12	Sukkur	10.5	14.3	7.9	9.5	13.3	7.0
13	Larkana	9.8	13.8	7.1	8.6	13.2	5.4
14	Peshawar	10.8	16.7	6.9	8.4	15.2	3.8
15	Bannu	13.6	13.9	13.4	12.3	14.0	11.0
16	Quetta	10.1	15.5	6.4	9.2	15.6	4.8
17	Khuzdar	11.1	12.0	10.6	10.5	11.7	9.6

Table A6 : Income Group-wise Inflation (YoY) percent								
	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07
<u>Up to Rs. 3000</u>								
General	6.9	7.7	7.7	7.5	7.3	9.9	11.2	10.1
Food	7.7	9.6	9.3	8.7	8.4	13.0	14.9	12.2
Non-food	6.3	6.3	6.6	6.7	6.5	7.6	8.5	8.6
<u>Rs. 3001-5000</u>								
General	7.2	8.0	7.9	7.5	7.3	9.9	11.2	10.2
Food	8.0	10.2	9.6	8.8	8.6	13.4	15.4	12.7
Non-food	6.5	6.5	6.8	6.6	6.5	7.4	8.2	8.3
<u>Rs. 5000-12000</u>								
General	7.1	7.8	7.5	6.9	6.9	9.1	10.2	9.4
Food	8.8	10.9	9.7	8.6	8.7	13.2	15.0	12.6
Non-food	5.9	5.7	5.9	5.6	5.6	6.1	6.7	7.0
<u>Above Rs. 12000</u>								
General	6.7	6.9	6.3	5.6	5.8	7.3	8.0	7.7
Food	10.8	12.3	9.8	8.1	8.6	12.6	13.9	12.3
Non-food	3.9	3.1	3.9	3.8	3.7	3.4	3.6	4.3
<u>All income groups</u>								
General	6.9	7.4	7.0	6.4	6.5	8.4	9.3	8.7
Food	9.4	11.3	9.7	8.5	8.6	13.0	14.7	12.5
Non-food	5.2	4.7	5.1	4.9	4.9	5.0	5.4	5.9

Table A7: Distribution of Price Change (YoY)--WPI Items: November 2007

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

Table A8: SPI Item-wise Price Movements for the month of November 2007

S.No	Items	Unit	Price Nov 07	Percentage change	
				YoY	Monthly
1	Wheat	Kg.	15.4	28.6	5.4
2	Wheat flour a.qlt.	Kg.	17.0	25.3	4.4
3	Rice basmti.broken	Kg.	33.1	59.7	1.4
4	Rice irri-6	Kg.	24.1	48.9	2.1
5	Masur pulse washed	Kg.	59.2	39.5	5.8
6	Moong pulse washed	Kg.	50.8	-4.1	0.6
7	Mash pulse washed	Kg.	70.5	3.5	0.2
8	Gram pulse washed	Kg.	40.2	-6.1	-1.0
9	Beef	Kg.	121.4	2.8	0.3
10	Mutton	Kg.	233.2	4.9	0.2
11	Egg hen (farm)	Doz.	53.6	24.6	9.4
12	Bread plain m.s.	Each	17.4	12.4	0.9
13	Sugar	Kg.	28.9	-12.8	-2.1
14	Gur	Kg.	34.2	-17.8	-7.0
15	Milk fresh	Litr	29.4	11.5	0.5
16	Milk powdered nido	400g	145.3	24.3	0.2
17	Curd	Kg.	34.5	11.8	0.1
18	Veg.ghee tin	2.5k	278.4	30.4	1.1
19	Veg.ghee loose	Kg.	99.0	51.6	8.6
20	Mustard oil	Kg.	111.8	55.4	11.4
21	Cooking oil	2.5l	278.4	30.1	1.1
22	Potatoes	Kg.	17.4	-31.2	-6.6
23	Onions	Kg.	19.7	-43.3	-18.9
24	Tomatoes	Kg.	31.2	19.9	-29.7
25	Bananas	Doz.	28.6	-1.0	-10.1
26	Salt powdered	Kg.	5.1	5.4	2.9
27	Red chillies(powd)	Kg.	133.2	45.9	8.9
28	Garlic	Kg.	51.6	-18.4	-0.7
29	Tea packet	250g	65.0	-6.4	0.0
30	Tea (prepared)	Cup	6.6	5.6	0.5

continued

S.No	Items	Unit	Price Nov 07	Percentage change	
				YoY	Monthly
31	Cooked beef plate	Each	32.0	7.2	0.8
32	Cooked dal plate	Each	19.2	7.6	0.4
33	Cigarettes k-2	10's	8.4	5.2	0.0
34	Coarse latha	Mtr.	38.7	10.8	0.9
35	Lawn (avg.+s.qlty)	Mtr.	80.8	2.8	0.0
36	Voil printed	Mtr.	39.2	4.1	1.1
37	Shirting	Mtr.	70.8	8.1	0.3
38	Sandel gents bata	Pair	499.0	25.1	0.0
39	Sandel ladies bata	Pair	299.0	0.0	0.0
40	Chappal spng. Bata	Pair	99.0	11.2	0.0
41	Kerosene	Litr	39.4	0.9	-0.2
42	Firewood	40kg	211.4	13.0	1.5
43	Elec. Bulb 60-wats	Each	12.7	5.4	2.0
44	Match box	Each	0.9	26.5	1.2
45	Washing soap	Cake	9.0	11.4	1.8
46	Bath soap lifebuoy	Cake	17.0	22.0	2.3
47	Chicken (farm)	Kg.	79.2	17.5	-9.1
48	Gas chrg. All clb. Comb	D.mmbt	224.7	-7.8	0.0
49	L.p.g.(cylinder 11kg.)	Each	682.0	28.0	5.3
50	Elec.chrg.all slabs com	Bd. Unit	5.1	9.9	0.0
51	Petrol	Litr	53.8	-6.9	0.0
52	Diesel	Litr	37.9	-2.6	0.0
53	Telephone local	Call	2.3	0.0	0.0
Max:				59.7	11.4
Median				8.1	0.3
Min:				-43.3	-29.7

Table A9: Daily Labor Wages (Rs. per day)--Average of 35 Cities						
	Carpenter	Mason	Laborer	Plumber	Electrician	Average
Annual Averages						
FY03	218	225.4	107.7	219.8	216.4	197.4
FY04	224.5	237.4	114.5	225	221.9	204.6
FY05	245.8	261.4	129.5	245.5	240.3	224.5
FY06	283.2	306.0	154.7	283.2	270.1	259.4
FY07	319.9	350.2	180.3	315.7	308.1	294.8
Monthly averages						
Nov-06	315.0	342.2	178.4	311.8	304.8	290.4
Dec-06	318.1	347.6	180.7	315.5	306.9	293.8
Jan-07	320.2	349.0	181.5	316.3	307.9	295.0
Feb-07	324.1	354.7	182.9	319.8	308.3	298.0
Mar-07	328.4	359.7	184.9	321.5	311.7	301.2
Apr-07	330.8	364.1	186.2	323.6	313.2	303.6
May-07	331.1	365.3	188.0	321.3	313.2	303.8
Jun-07	334.9	374.0	191.5	330.2	318.2	309.7
Jul-07	339.9	377.4	193.9	338.4	326.4	315.2
Aug-07	351.2	387.9	198.3	351.6	337.3	325.2
Sep-07	354.8	394.2	200.3	354.3	338.8	328.5
Oct-07	359.1	398.5	203.1	357.6	341.9	332.1
Nov-07	370.3	402.4	204.4	364.2	352.5	338.8

Source: Federal Bureau of Statistics

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

Item and Specification	Weights	Index	
		Nov-06	Nov-07
GENERAL	100.001	141.59	153.87
FOOD & BEVERAGES.	40.3416	148.69	167.22
1 WHEAT	0.483	137.00	175.32
2 WHEAT FLOUR	5.1122	136.16	169.84
3 MAIDA	0.1059	129.75	164.49
4 BESAN	0.132	159.32	147.12
5 RICE	1.3369	127.95	200.41
6 PULSE MASOOR	0.2214	117.34	161.34
7 PULSE MOONG	0.223	176.37	171.30
8 PULSE MASH	0.2017	150.72	155.58
9 PULSE GRAM	0.4272	147.71	140.29
10 GRAM WHOLE	0.1491	148.16	135.35
11 MUSTARD OIL	0.0456	129.82	203.73
12 COOKING OIL	0.6858	134.30	178.64
13 VEGETABLE GHEE	2.6672	139.88	204.32
14 SUGAR	1.9467	122.18	106.54
15 GUR	0.0735	158.50	132.52
16 TEA	1.2559	114.34	109.03
17 MILK FRESH	6.6615	149.34	168.11
18 MILK POWDER	0.1105	133.12	171.13
19 MILK PRODUCTS	0.5607	136.29	154.16
20 HONEY	0.0358	130.45	130.45
21 CEREALS	0.0878	130.52	149.54
22 JAM,TOMATO,PICKLES & VINEGAR	0.2472	122.25	136.69
23 BEVERAGES	0.7286	128.97	142.70
24 CONDIMENTS	0.3392	112.68	126.98
25 SPICES	0.6008	107.96	136.88
26 DRY FRUIT	0.276	206.09	227.54
27 BAKERY & CONFECTIONARY	2.9837	117.59	122.78
28 CIGARETTES	0.9527	147.35	157.93
29 BETEL LEAVES & NUTS	0.1851	133.60	145.16
30 READYMADE FOOD	1.6833	152.27	164.31
31 SWEETMEAT & NIMCO	0.3846	149.40	168.82
32 FISH	0.2703	144.43	150.02
33 MEAT	2.6981	212.01	221.74
34 CHICKEN FARM	0.9158	129.05	151.94
35 EGGS	0.4119	158.22	202.11
36 POTATOES	0.5542	285.80	188.57
37 ONIONS	0.5973	300.00	197.14
38 TOMATOES	0.4569	146.66	203.41
39 VEGETABLES	1.9165	183.00	200.22
40 FRESH FRUITS	1.616	136.26	159.39
APPAREL, TEXTILE & FOOTWEAR.	6.0977	121.32	131.84
41 COTTON CLOTH	1.6197	127.33	135.52
42 SILK,LINEN,WOOLEN/CLOTH	0.5766	124.54	132.76
43 TAILORING CHARGES	0.8636	126.25	135.04
44 HOSIERY	0.1528	134.29	140.58
45 READYMADE GARMENTS	1.2038	121.41	126.08
46 WOOLEN READYMADE GARMENTS	0.1485	134.14	141.01
47 FOOTWEAR	1.5327	108.38	128.58
HOUSE RENT.	23.4298	140.14	151.73
48 HOUSE RENT INDEX (Combined)	23.4298	140.14	151.73
FUEL AND LIGHTING.	7.2912	147.26	154.36
49 KEROSENE	0.1366	235.87	235.87
50 FIREWOOD	0.4778	199.50	229.43
51 MATCH BOX	0.1301	100.00	100.00
52 BULB & TUBE	0.1311	87.72	93.52

(continued)

Table A10 (continued)

Item and Specification	Weights	Index	
		Nov-06	Nov-07
53 ELECTRICITY	4.3698	108.59	119.53
54 NATURAL GAS	2.0458	218.55	213.14
H.HOLD.FURNITURE & EQUIPMENT ETC.	3.2862	130.59	138.31
55 UTENSILS	0.369	118.7	123.55
56 PLASTIC PRODUCTS	0.1055	136.4	144.83
57 SUITCASE	0.047	120.64	128.51
58 HOUSE HOLD EQUIPMENTS	0.0953	117.94	123.29
59 FURNITURE (Ready Made)	0.3054	128.85	139.36
60 FURNISHING	0.6362	127.05	133.43
61 ELECT.IRON FANS & WASHING MACHINE	0.1889	119.43	126.79
62 SEWING MACHINE,CLOCK AND NEEDLES	0.127	117.09	119.21
63 REFRIGERATOR & AIRCONDITIONER	0.1756	95.27	101.03
64 MARRIAGE HALL	0.0445	137.53	153.03
65 HOUSE HOLD SERVANT	1.1918	145.65	155.02
TRANSPORT & COMMUNICATION.	7.3222	151.60	146.85
66 PETROL	1.7253	188.63	175.59
67 DIESEL	0.207	245.02	238.74
68 CNG. FILLING CHARGES	0.1649	139.11	142.87
69 SERVICE CHARGES	0.3835	129.07	134.42
70 VEHICLES	0.2596	100.31	101.27
71 TYRE & TUBE	0.2831	120.66	125.47
72 TRANSPORT FARE/CHARGES	2.1236	170.73	173.38
73 TRAIN FARE	0.1514	170.01	170.74
74 AIR FARE	0.0983	218.72	253.00
75 COMMUNICATION	1.9255	99.43	86.77
RECREATION & ENTERTAINMENT.	0.8259	105.87	106.21
76 RECREATION	0.3399	100.00	101.91
77 ENTERTAINMENT	0.486	109.98	109.22
EDUCATION.	3.4548	133.47	139.17
78 TUTION FEES	2.3629	138.65	145.17
79 STATIONERY	0.35	120.23	130.11
80 TEXT BOOKS	0.6894	126.25	127.62
81 COMPUTER & ALLIED PRODUCTS	0.0525	83.05	81.52
CLEANING LAUNDRY & PER.APPEARANCE.	5.8788	123.53	134.36
82 WASHING SOAP & DETERGENT	1.5535	114.08	121.88
83 TOILET SOAP	0.7436	118.33	144.11
84 TOOTH PASTE	0.4036	105.35	108.23
85 SHAVING ARTICLES	0.348	109.6	117.18
86 COSMETICS	1.4272	122.51	127.38
87 WATCHES	0.0552	118.84	125.18
88 JEWELLERY	0.3936	188.54	230.74
89 LAUNDRY CHARGES	0.2207	140.28	148.35
90 HAIR CUT & BEAUTY PARLOUR CHARGES	0.7334	127.86	131.74
MEDICARE.	2.0728	120.26	129.81
91 DRUGS & MEDICARES	1.0752	106.62	107.19
92 DOCTOR'S FEE	0.9976	134.96	154.20

Figure A1: CPI Non-food Sub-indexes' Inflation

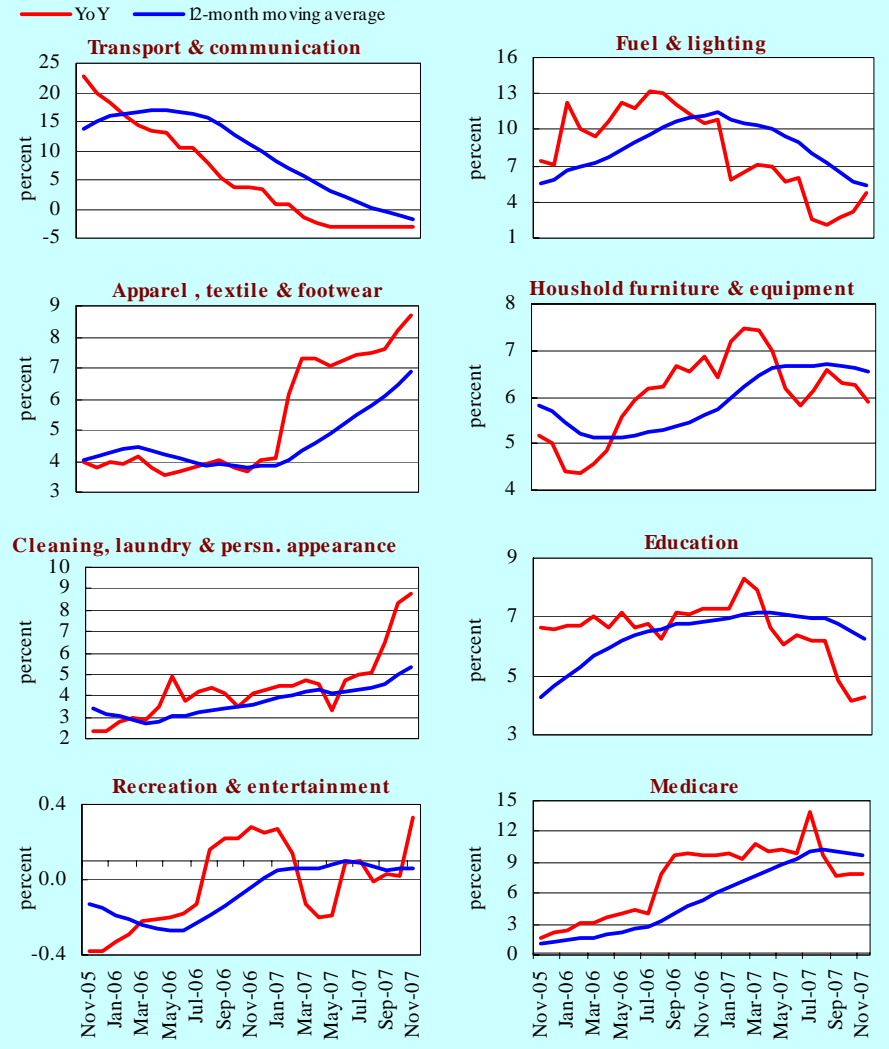


Figure A2: Frequency Distribution of Price Changes of CPI Items, November 2007

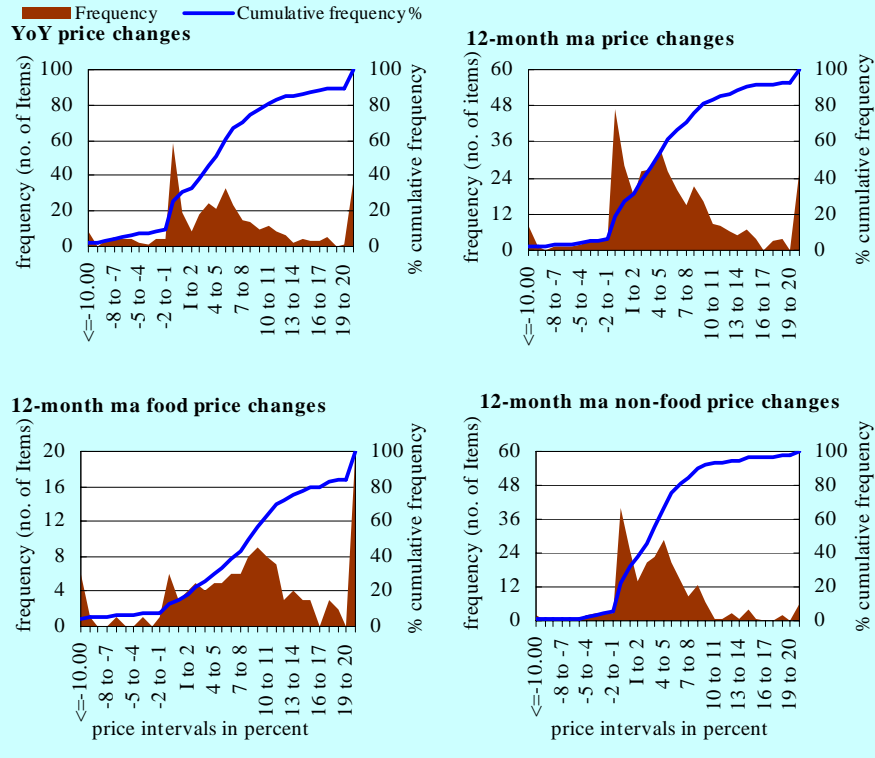
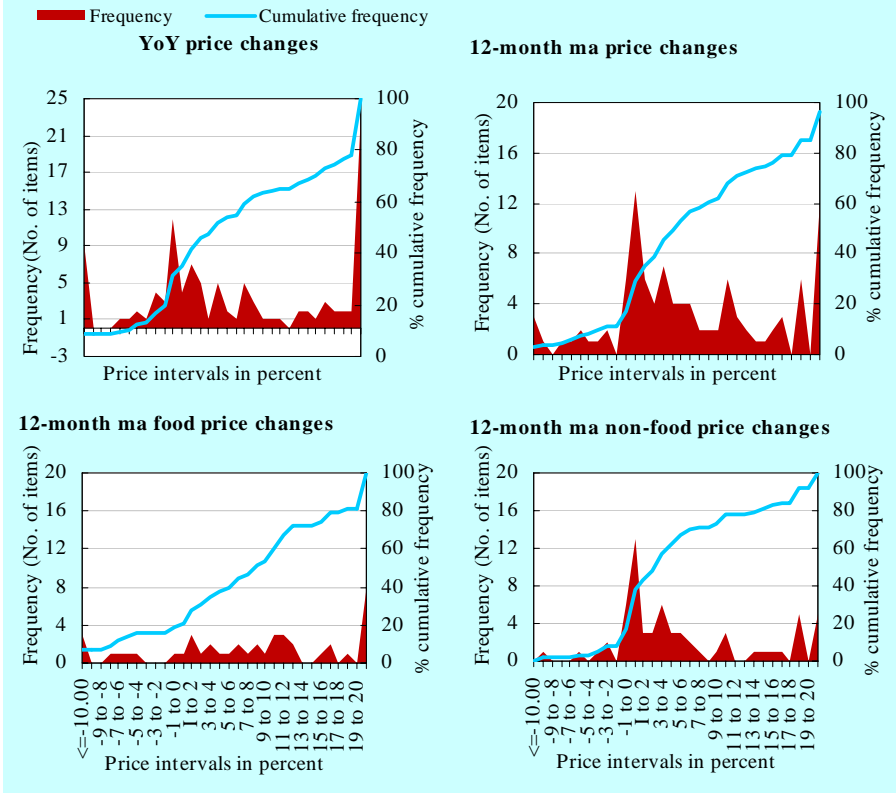


Figure A3: Frequency Distribution of Price Changes of WPI Items, November 2007



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^{th} item to the overall inflation

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

the reference month

w_i : Weights of i^{th} item

π_{it} : Inflation of i^{th} item

π_t : Overall inflation