

Inflation Monitor

December 2007



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Contents

1.	Overview	1
2.	Consumer Price Inflation	4
	2.1 Food Inflation	5
	2.2 Non-food Inflation	7
	2.3 City-wise Inflation	9
	2.4 Income Group-wise Inflation	11
	2.5 Services and Non-services Inflation	11
3.	Wholesale Price Inflation	13
4.	Global Commodity Prices	17
5.	Sensitive Price Indicator	21
	Annexure A:	24
	Table A1: CPI Inflation (YoY) by Groups	
	Table A2: Distribution of Price Changes of CPI Basket, December 2007 (YoY)	
	Table A3: Top Ten Contributors to YoY CPI Inflation in December 2007	
	Table A4: Distribution of YoY Price Changes - Selected CPI Items, December 2007	
	Table A5: City-wise CPI Inflation (YoY) by Income Groups, December 2007	
	Table A6: Income Group-wise CPI Inflation (YoY)	
	Table A7: Distribution of Wholesale Price Changes (YoY), December 2007	
	Table A8: SPI Item-wise Price Movements for the month of December 2007	
	Table A9: Consumer Price Index Numbers by Major Groups and Selected Commodities for December 2007	
	Figure A1: CPI Non-food Sub-indexes' Inflation	
	Figure A2: Frequency Distribution of Price Changes of CPI Items, December 2007	
	Figure A3: Frequency Distribution of Price Changes of WPI Items, December 2007	
	Annexure B: Technical Notes	37

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Overview

Headline CPI inflation, on an year-on-year (YoY) basis, declined slightly to 8.8 percent in December 2007 from 8.9 percent registered in the same month last year. CPI food inflation declined by 0.5 percentage points, as compared to the same month last year, and was recorded at 12.2 percent in December 2007. This double digit food inflation was mainly because of an upward pressure on the prices of some key food staples including wheat, rice, vegetable ghee, etc. On the other hand, non-food CPI inflation (YoY) has continued to show an uptrend over the last few months, however recorded a moderate surge of 0.1 percentage points in December 2007 over the same month last year (see **Table 1.1**).

Table 1.1: Inflation (YoY)

	percent						
	CPI			Core Inflation		WPI	SPI**
	General	Food	Non-food	NFNE *	20%Trimmed		
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
Dec-07	8.8	12.2	6.3	7.2	8.7	12.2	9.2

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

Similar to YoY CPI inflation, the annualized trend of inflation measured by the 12-month moving average (12-mma) declined a little to 7.6 percent in December 2007 compared to 7.9 percent in December 2006. This was essentially due to the strong food inflation, which partially offset the impact of a deceleration in CPI non-food inflation. The 12-mma food inflation stood at 10.8 percent in December 2007, compared to 8.5 percent during the same period last year. This upsurge was mainly due to a persistent pressure on food commodity prices that was seen over the last 12 months. However the 12-mma non-food inflation showed a decline of 2.2 percentage points (5.3 percent in December 2007 compared to 7.5 percent in December 2006).

Unlike YoY CPI inflation, the month-on-month CPI inflation showed an increase, recording a rise of 0.1 percentage points in December 2007 as compared to the same month last year. This inflation is significantly higher than the five-year

average of monthly increases in December. The increase in monthly CPI inflation during the month under review was attributed to monthly non-food inflation that showed an inflation of 0.7 percent. On the other hand, monthly food inflation decreased to 0.4 percent in December 2007 compared to monthly inflation of 0.6 percent in December 2006 (see **Table 1.2**).

Both measures of core inflation i.e. NFNE (non-food non-energy) and 20 percent trimmed-mean continued to show a rising trend that started in June 2007. Thus on YoY basis, NFNE based core inflation increased to 7.2 percent in December 2007 (the highest since February 2006) from 5.7 percent in December 2006. This uptrend in core inflation is principally the result of rising house rent index (HRI) inflation during the past few months. Similarly core inflation based on 20 percent trimmed-mean accelerated and was recorded at 8.7 percent in December 2007 compared to 6.3 percent in the same month last year (see **Table 1.2**).

Unlike CPI inflation, WPI inflation accelerated sharply, witnessing a double digit YoY rise for the third consecutive month. WPI inflation stood at 12.2 percent during December 2007 as compared to 8 percent recorded in the same month last year. Both WPI food and non-food inflation contributed in this rise. 12-mma WPI inflation moved up further and was recorded at 8.2 percent in December 2007 compared to 7.9 percent during the preceding month. Similar to CPI, the sensitive price indicator (SPI) exhibited a YoY deceleration in December 2007 and was

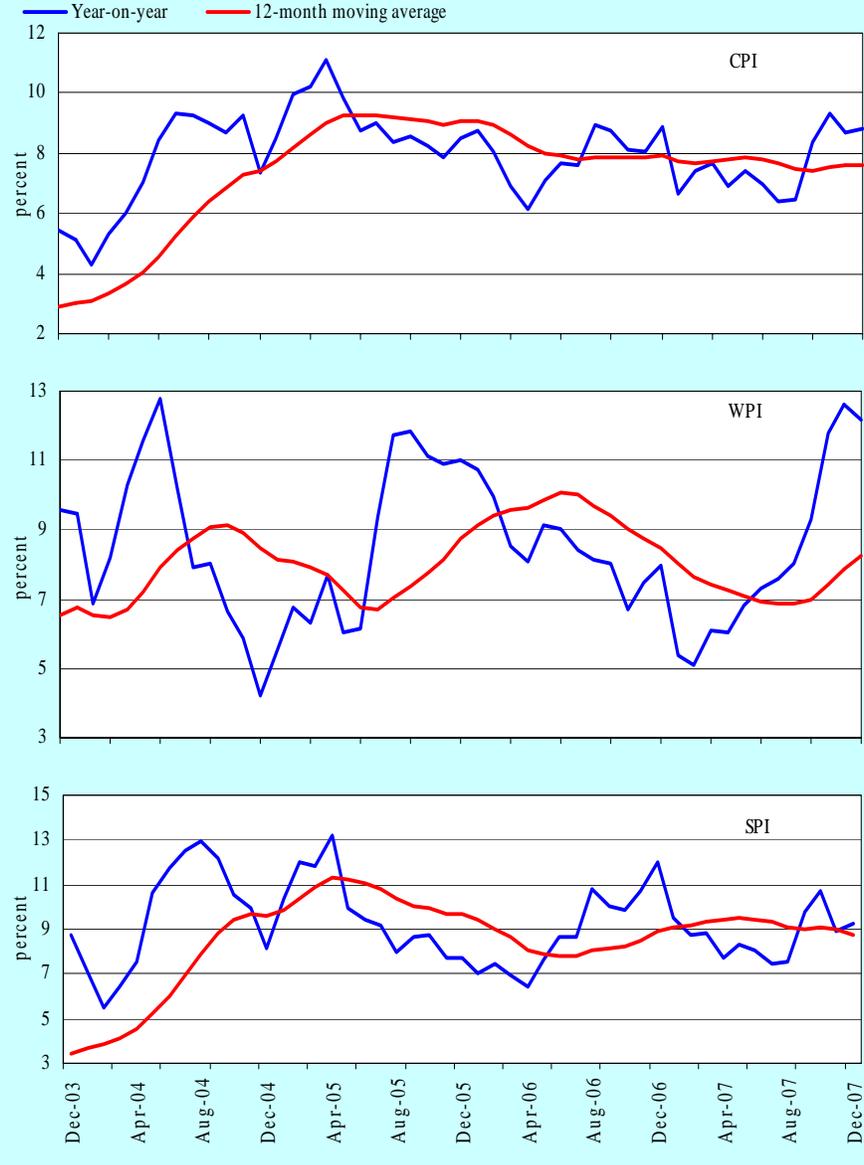
Table 1.2: Different Dimensions of Inflation (percent)

	Dec-05	Dec-06	Dec-07	5-year average
Year-on-year (Dec over Dec)				
Overall CPI	8.5	8.9	8.8	7.8
Food group	8.1	12.7	12.2	10.0
Non-food group	8.8	6.2	6.3	6.3
Core Inflation				
NFNE*	7.9	5.7	7.2	6.3
Trimmed	7.3	6.3	8.7	6.8
Period average (July-Dec over July-Dec)				
Overall CPI	8.4	8.4	8.0	7.3
Food group	7.5	10.6	11.6	9.1
Non-food group	9.1	6.8	5.4	6.3
Core Inflation				
NFNE*	8.0	6.2	6.5	6.1
Trimmed	7.7	6.7	7.6	6.6
12-month moving average				
Overall CPI	9.1	7.9	7.6	7.0
Food group	9.9	8.5	10.8	8.5
Non-food group	8.5	7.5	5.3	5.9
Core Inflation				
NFNE*	7.9	6.6	6.1	5.8
Trimmed	8.2	6.8	7.9	6.5
Monthly (Dec over Nov)				
Overall CPI	-0.3	0.5	0.6	0.2
Food group	-1.3	0.6	0.4	-0.3
Non-food group	0.4	0.4	0.7	0.5
Core Inflation				
NFNE*	0.5	0.4	0.7	0.5
Trimmed	0.4	0.4	0.7	0.5

* NFNE is Non-food non-energy inflation

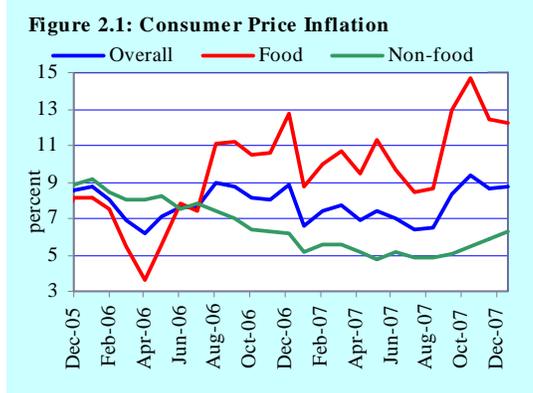
recorded at 9.2 percent compared to 12 percent in the corresponding month last year (see **Figure 1.1**).

Figure 1.1: Movements in Price Indices



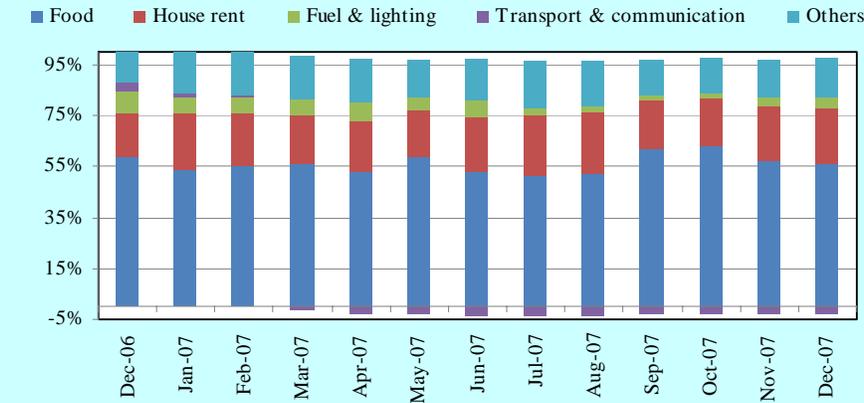
2. Consumer Price Inflation

In December 2007, overall CPI rose by 8.8 percent on an year on year (YoY) basis, a decline of 0.1 percentage points from December 2006. However, it is still 0.1 percentage points higher than the CPI inflation recorded in November 2007. The lower YoY CPI inflation was mainly due to the food inflation that depicted a decline of 0.5 percentage points and was recorded at 12.2 percent



during the month under review compared to 12.7 percent in the corresponding month last year. On the other hand non-food inflation showed an increase of 0.1 percentage points in December 2007 to 6.3 percent YoY compared to the 6.2 percent recorded in the same month last year (see **Figure 2.1**).

Figure 2.2: Weighted Contribution to CPI Inflation (YoY)

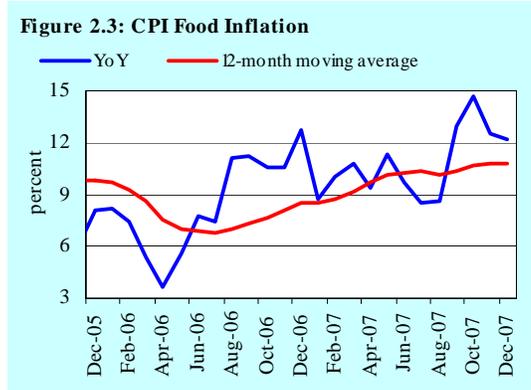


Despite showing a relative ease in YoY inflation, food inflation still remained high and witnessed a double digit rise for the fourth consecutive month (from September to December 2007). However the contribution of food inflation in overall inflation declined to 58.9 percent in December 2007, lower than the 60.9 percent contribution during November 2007. Accordingly, the contribution of non-food group in overall inflation increased to 41.1 percent in December 2007 from 39.1 percent in November 2007. This was mainly on account of an increase in weighted contributions of *house rent*, *fuel & lighting* and *household furniture &*

equipment in overall inflation. The contribution of house rent index (the largest item of the CPI basket) increased to 23.3 percent in December 2007 from 17 percent in the same month last year (see **Figure 2.2**).

2.1 Food Inflation

Food inflation (YoY) declined from 12.5 percent in November 2007 to 12.2 percent (YoY) in December 2007. Despite showing a deceleration, food inflation still remained in the double figures for the fourth consecutive month (from September 2007 to December 2007).

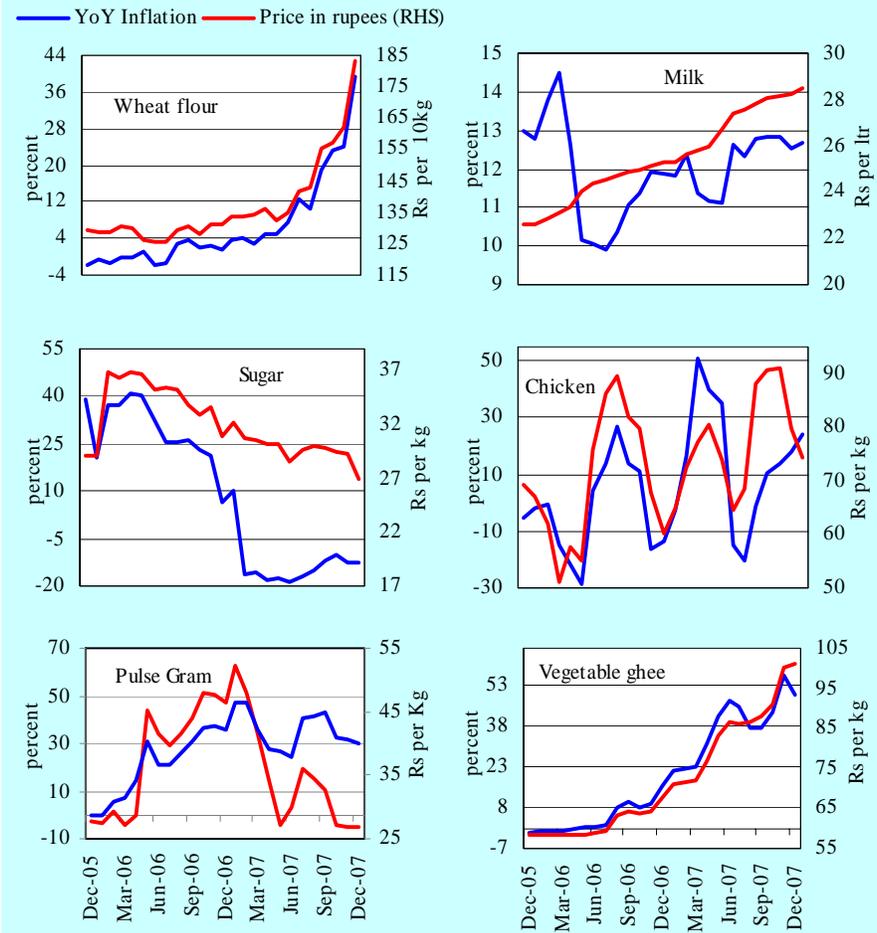


Distribution of price changes of CPI food basket exhibits that

out of the total 110 commodities reported in the food group, 60 commodities including 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 61.9 percent in December 2007. The combined weight of food items with double digit inflation was about 60 percent of the food group. Like previous month, the most prominent upward movement was observed in the price of all four varieties of rice that showed significant increase in YoY inflation ranging between 47.5 to 61.9 percent in December 2007. On the other hand, YoY inflation of 23 commodities including key staples such as onion, potatoes, tomatoes, sugar, basen, pulse gram, etc. either declined or remained unchanged during the month under review. The rest of the items, having an aggregate weight of about 16 percent in the food group, exhibited subdued or moderate inflation (see **Table A2** in Annexure A and **Figure 2.4**).

On a month over month (MoM) basis, there was an increase in the average prices of food items such as wheat, eggs, maida, rice basmati and some fruits during December 2007 compared to November 2007; whereas the price of onion, potatoes, tomatoes etc. declined.

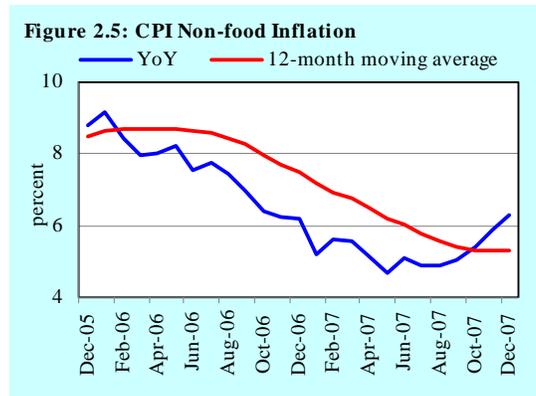
Figure 2.4: Price Trends in Key Food Items



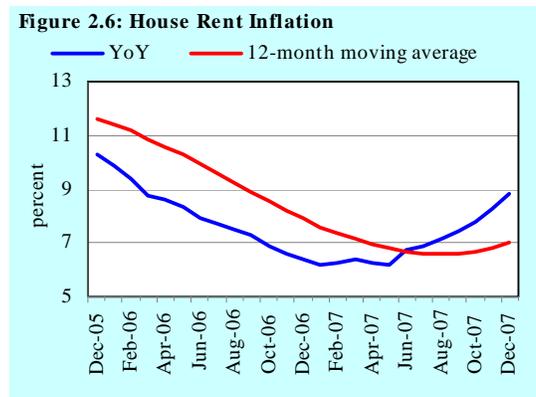
The contribution of individual food items in the overall YoY CPI inflation has been significant as 7 out of top10 items contributing in overall inflation during December 2007 were from the food group. These items which have a cumulative weight of 20.6 percent include wheat flour, vegetable ghee, fresh milk, rice, fresh fruits, meat and wheat. The combined contribution of these food items was more than 61 percent in the overall inflation during December 2007 (see **Table A3** in the annexure). This implies that the CPI inflation is not broad based. Moreover, within the food group, wheat, rice, ghee and milk contributed about 92 percent of the food inflation during December 2007.

2.2 Non-food Inflation

Non-food inflation (YoY) continued to increase for the fourth consecutive month and was recorded at 6.3 percent in December as compared to 5.9 percent in November 2007 (see **Figure 2.5**). This upward movement in non-food inflation was attributed to a pickup in *house rent index, fuel & lighting and cleaning laundry & personal appearance* sub-groups during the last few months.



Further disaggregated analysis of non-food group reveals that inflation (YoY) in the *apparel, textile & footwear* sub-group was 8.7 percent in December 2007, similar to that in the previous month. However the 8.7 percent inflation recorded in December 2007 is significantly higher than the 4 percent inflation recorded in December 2006. This significant year-on-year



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

Inflation recorded by the *house rent index* sub-group maintained the rising trend seen since May 2007 to reach 8.8 percent (YoY) in December 2007 compared to 6.4 percent in the same month last year. Rising wage inflation and higher prices of bricks, iron bars & sheets and wires & cables are specifically putting upward pressure on HRI inflation (see **Figure 2.6**).

The *fuel & lighting* sub-group's inflation continued the uptrend that started in September 2007 and recorded YoY inflation of 6.5 percent which is 0.7 percentage points higher than the YoY inflation recorded in the previous month. The pickup in this group's inflation was the result of a significant YoY rise in the prices of electricity, gas cylinder and firewood during the month under study as compared to December 2006.

The *cleaning, laundry & personal appearance* sub-group continued to increase for the seventh consecutive month, accelerating to 8.9 percent in December 2007 compared to 4.3 percent during the corresponding month last year. On the other hand YoY inflation in the *medicare* sub-group, during December 2007, slowed relative to both the previous month and the same month last year, falling to 7.6 percent (see **Figure A1** in annexure).

Inflation (YoY) in *household furniture & equipment* sub-group accelerated in December 2007 and was recorded at 6.5 percent as compared to 5.9 percent in the previous month. *Transport & communication* sub-group witnessed disinflation and fell by 3 percent in December 2007 in contrast to a rise of 3.4 percent in the same month last year. The decline in this sub-group is mainly attributed to fall in the prices of motor cycles, telephone charges (outside city) and key fuels.

Inflation in *recreation & entertainment* sub-group showed a slight increase and was recorded at 0.4 percent in December 2007 compared to the 0.3 percent in November 2007. YoY inflation in the *education* sub-group was 4.4 percent in December 2007 compared to that of 7.3 percent during the corresponding month last year reflecting a fall in the prices of computers CDs and some textbooks.

Item wise detail of non-food group's inflation shows that out of the 250 non-food commodities included in the CPI basket, 27 commodities witnessed double digit inflation. These include items like electricity charges, gold and silver tezabi and doctors clinic fee, etc. There were 72 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, gas charges, 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

City-wise inflation data reveal that inflationary pressures eased in all five major cities¹ during December 2007. The inflation in Islamabad and four provincial capitals decelerated in December 2007 as compared to the same month last year. City-wise inflation in Islamabad, Lahore, Karachi, Quetta and Peshawar was recorded at 7.7, 7.5, 8.1, 9.0 and 9.2 percent respectively in December 2007. Peshawar and Quetta remained in the category of high inflation cities², whereas Islamabad, Karachi, and Lahore were among the category of low inflation cities (see **Table 2.1**). The inflation data of 35 cities exhibited that 22 cities were found in the category of high inflation cities and remaining 13 cities were categorized in low inflation cities.

	Over all CPI	Islamabad	Lahore	Karachi	Quetta	Peshawar
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
Dec-07	8.8	7.7	7.5	8.1	9.0	9.2

Table 2.2 exhibits that the highest level of YoY inflation was recorded in Nawabshah (14.0 percent) followed by Bannu (13.8 percent) and Bahawalnagar (13.4 percent) during December 2007. On the other hand, the lowest YoY inflation was recorded in Sialkot (6.7 percent) during the month under review (see **Table 2.2**).

¹ Federal & provincial capitals.

² Exhibited above average CPI inflation of 8.7 percent for the month.

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

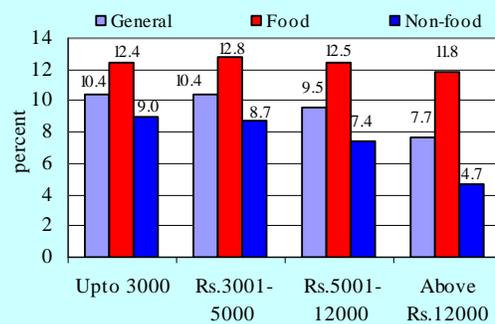
	High inflation cities				Low inflation cities		
	General	Food	Non-food		General	Food	Non-food
Nawabshah	14.0	19.0	10.6	Attock	8.7	11.4	6.7
Bannu	13.8	12.9	14.4	Faisalabad	8.5	14.9	3.7
Bahawalnagar	13.4	13.3	13.5	Bahawalpur	8.3	12.2	5.4
Vehari	12.6	16.8	9.5	Mianwali	8.1	7.7	8.5
Khuzdar	12.4	11.9	12.8	Karachi	8.1	12.4	5.1
Shahdadpur	12.4	16.3	9.6	Multan	8.0	11.1	5.7
Hyderabad	11.7	14.9	9.3	Islamabad	7.7	8.1	7.5
Gujranwala	11.4	14.7	8.9	Jhelum	7.6	6.8	8.2
D.G. Khan	11.3	15.4	8.2	Lahore	7.5	11.5	4.5
Kunri	11.3	13.7	9.5	Okara	7.5	10.1	5.6
D.I.Khan	10.9	13.0	9.4	Rawalpindi	7.2	7.9	6.6
Larkana	10.8	15.5	7.3	Sargodha	6.7	8.4	5.4
Mirpur Khas	10.8	14.1	8.3	Sialkot	6.7	9.6	4.4
Samundari	10.7	14.3	8.1				
Loralai	10.5	10.8	10.2				
Mardan	10.4	13.3	8.3				
Turbat	10.3	10.5	10.2				
Sukkur	10.2	13.3	8.0				
Jhang	10.1	13.4	7.7				
Peshawar	9.2	13.9	5.8				
Abbotabad	9.0	13.2	5.7				
Quetta	9.0	12.9	6.1				

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

2.4 Income Group-wise Inflation

Income group wise inflation data indicate that three out of four income categories have experienced higher than the overall average CPI inflation (viz. general, food and non food). The only category that displayed lower inflation than the overall CPI inflation was the income group of above Rs. 12000 (see **Figure 2.7**).

Figure 2.7 : Income Group-wise CPI Inflation December 2007

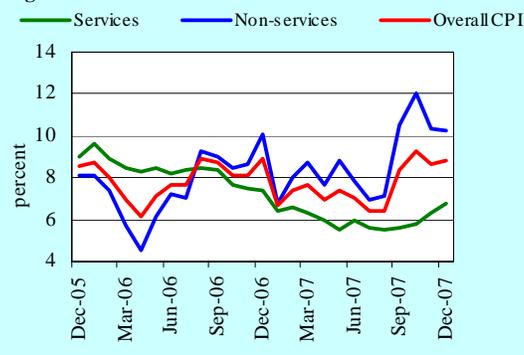


The highest YoY CPI inflation was recorded for the income group of Rs. 3001 to Rs. 5000 that recorded double digit inflation for the third consecutive month, followed by income group of Rs. 5001 to Rs.12000, while the highest income group of above Rs. 12000 experienced the lowest inflation in all categories. City-wise data of income groups exhibit that the lowest YoY inflation was recorded in Rawalpindi for income groups up to Rs. 3000 and Rs. 3001 to Rs. 5000. Sargodha recorded the lowest inflation for the income groups of above Rs. 5000 per month earnings. While the highest YoY inflation was recorded in Bannu for all income groups (see **Table A5** in annexure A).

2.5 Services and Non-services Inflation

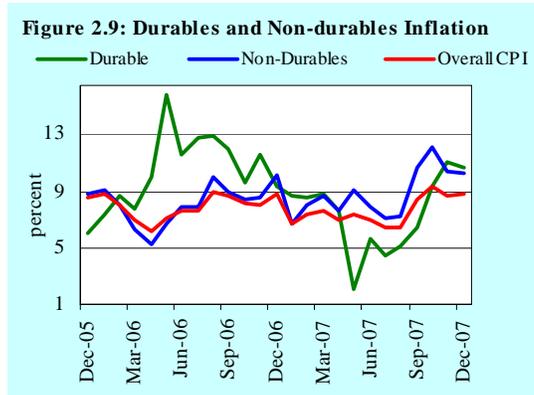
Services³ sector inflation depicted deceleration in December 2007 compared to the same month last year. Services sector witnessed 6.8 percent inflation during December 2007 compared to 7.4 percent during the same month last year. On the other hand, the non-services sector moved up slightly and was recorded at 10.2 percent during December 2007 as compared to 10.1 percent in December 2006 (see **Figure 2.8**).

Figure 2.8: Services & Non-services Inflation



³ 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.

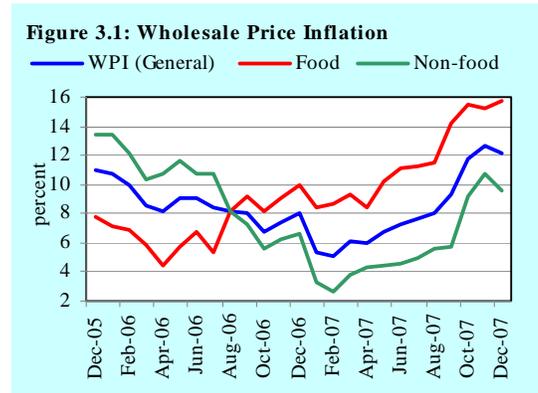
Disaggregation of the non-services sector inflation data reveal that YoY inflation in durable⁴ and non-durable goods displayed acceleration in December 2007 compared to the same month last year. YoY inflation in the durable goods stood at 10.7 percent in December 2007 compared to 9.4 percent for the same month last year mainly due to a rise in the prices of jewelry and furniture. Whereas the inflation in the prices of non-durable goods was 10.2 percent in December 2007 compared to 10.1 percent in the same month last year (see **Figure 2.9**).



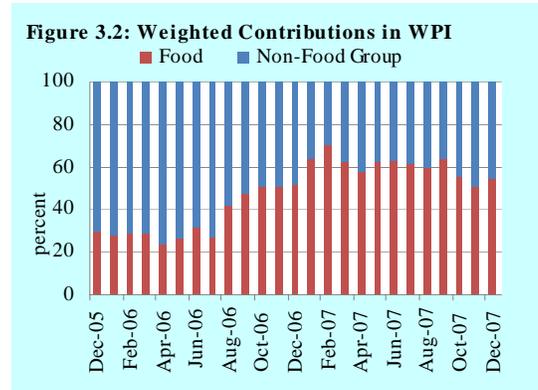
⁴ Durable items include suitcase, furniture, electric iron, fans, washing machines, sewing machines, clocks, needles, refrigerators, air conditioners, vehicles, computer & allied products, watches and jewelry, etc.

3. Wholesale Price Index (WPI)

WPI inflation remained stubbornly high during December 2007 and exhibited double digit rise for the third consecutive month. WPI inflation (YoY) stood at 12.2 percent in December 2007 compared to 8.0 percent in the same month last year. This 4.2 percentage point rise in WPI inflation was contributed by food and non-food group's inflation. In particular, the WPI food inflation exhibited a sharp rise of 5.8 percentage points as compared to December 2006 and was recorded at 15.8 percent in December 2007. This is the highest WPI food inflation since May 1995. WPI inflation under non food group was recorded at 9.5 percent in December 2007 compared to 6.6 percent during the same month last year (see **Figure 3.1**).



The weighted contribution of food inflation in WPI inflation rose to 54.5 percent in December 2007 due to the continuous double digit rise in WPI food inflation since May 2007. While the contribution of non-food group showed a decline and was recorded at 45.5 percent in December 2007 compared to 48.5 percent in the same month last year (see **Figure 3.2**).



An item-wise break-up of WPI data shows that 41 items exhibited double digit growth in their prices ranging between 10 to 104 percent. The items that displayed a double digit rise of above 10 percent include rice, vegetable ghee and oil, wheat, maida, fresh milk, spices, hides, chemicals, furnace oil, mobil oil, foot wear, wires and cables, bricks, iron bars & sheets and coke. Prices of 10 items exhibited growth between 5 to 10 percent whereas 24 items showed subdued inflation while the remaining 31 items showed deflation or no change in their price levels.

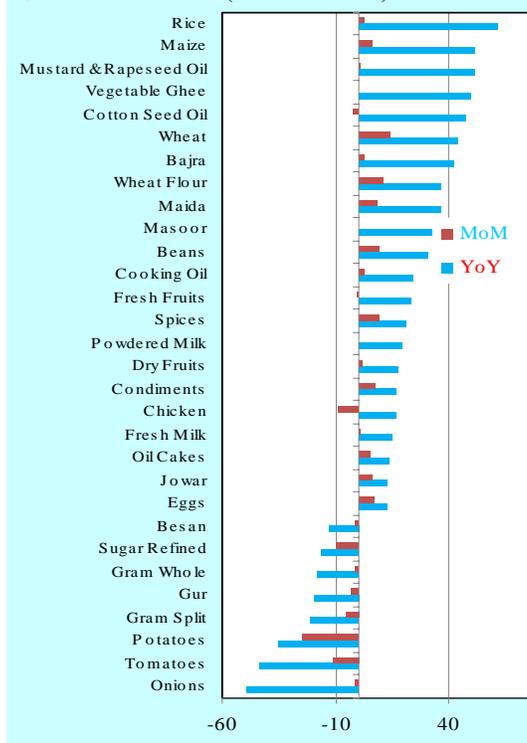
Table 3.1: WPI Price Distribution of YoY Changes (December 2007)

Groups	No. of Items				Total
	Decrease or no change	Up to 5%	5%-10%	More than 10%	
A. Food	14	3	4	22	43
B. Non-Food	17	21	6	19	63
Raw material	2	2	1	4	9
Fuel, Lighting and Lubricant	5			6	11
Manufactures	7	16	3	6	32
Building Material	3	3	2	3	11
Total	31	24	10	41	106

The WPI food price distribution of YoY changes was dominated by the items showing double digit rise. There were 22 food items that exhibited more than 10 percent growth in their wholesale prices. While 4 items recorded moderate inflation of 5 to 10 percent, the other 3 items recorded subdued inflation of up to 5 percent. The wholesale prices of the remaining 14 food items declined or remained stable (see **Table 3.1**).

The distribution of WPI non-food inflation shows that the prices of 19 items rose by more than 10 percent, the prices of 21 items went up by 5 percent, while 17 items experienced decrease or no change in their prices and the remaining 6

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



items showed moderate inflation of 5 to 10 percent (see **Table 3.1**).

WPI food inflation remained in double digits for the 8th consecutive month and accelerated to 15.8 percent during December 2007. In the food group, the wholesale prices of rice, maize and mustard & rapeseed oil exhibited an increase of more than 50 percent, while cotton seed oil, vegetable ghee, cooking oil, wheat and beans increased between 30 to 50 percent during December 2007. Whereas the wholesale prices of potatoes, onions, tomatoes, gur, sugar refined, gram split, gram whole and basen witnessed a negative YoY growth ranging from 50 to 13 percent during the month under study (see **Figure 3.3** and **Table A7** in the Annexure).

Non-food group WPI inflation (YoY) also remained strong and showed a significant increase in December 2007 compared to the same month last year. Within non-food group, *manufactures* and *building material* sub-groups exhibited higher inflation, while *raw material* and *fuel, lighting & lubricants* sub-groups showed lower YoY inflation in December 2007 compared to the same month last year (see **Figure 3.4**).

Figure 3.4: YoY Inflation in WPI Non-food

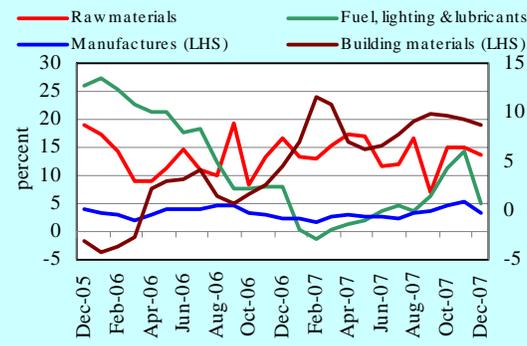
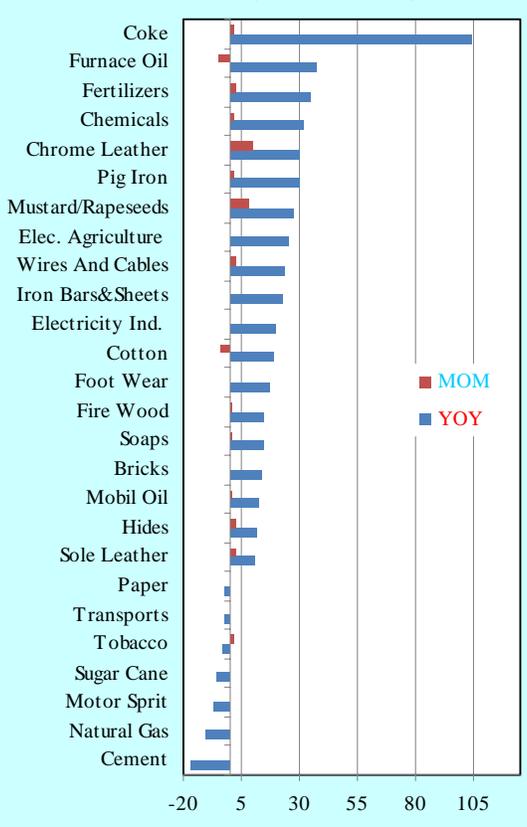


Figure 3.5: Wholesale Prices Inflation (%) in Selected Non-food Items (December 2007)



Itemwise breakup of non-food WPI inflation shows that the prices of furnace oil, mobil oil, cotton, fertilizers, wires and cables, pig iron, chemicals, electricity tariff-D, hides, iron bars & sheets, soaps and bricks displayed YoY growth between 10 to 37 percent in December 2007. The most prominent rise was witnessed in the wholesale price of coke that recorded a triple digit YoY rise of 103 percent in December 2007. There were 11 items that displayed negative growth and include cement, natural gas, motor spirit, diesel oil, cotton yarn, paint & varnish etc. during December 2007(see **Figure 3.5**).

An analysis of the sub-groups of WPI non-food inflation reveals that the YoY inflation under *raw material* sub-group decelerated and depicted a growth of 13.5 percent on YoY basis during December 2007 compared to 16.7 percent inflation during the same month last year. In this sub-group sugarcane and tobacco showed negative YoY growth in their wholesale prices. While the WPI inflation for hides, cotton, rapeseed and pig iron was recorded in double digits in December 2007.

WPI inflation for *fuel, lighting & lubricants* sub-group witnessed a deceleration on YoY basis. WPI inflation for this sub-group grew by 5.0 percent during December 2007 compared to 7.8 percent growth in the corresponding month last year. Within this group, 5 items (natural gas, motor spirit, diesel oil, coal and kerosene oil) showed decrease or no change in their wholesale prices. The remaining 6 items i.e. coke, mobil oil, furnace oil, fire wood, electricity industrial supply tariff-B and electricity agriculture tariff-D witnessed double digit (YoY) growth during December 2007 (see **Table A7** in Annexure A).

The wholesale prices of *manufactures* sub-group had a growth of 3.3 percent in December 2007 compared to 2.4 percent in December 2006. In this sub-group, chemicals, footwear, fertilizers, soaps and sole leather experienced a strong YoY price growth. Out of the 32 items in the *manufactures* sub-group, 7 recorded decline or no change, the other 16 items exhibited subdued growth of up to 5 percent, 3 items recorded a YoY growth of more than 5 percent and the remaining 6 items recorded a YoY growth of more than 10 percent in their prices during the month under review (see **Table A7** in Annexure A).

The *building material* sub-group recorded a significantly higher YoY WPI inflation and stood at 8.7 percent during December 2007 as compared to 4.6 percent inflation during the same month last year. Within this subgroup, a double digit rise was witnessed in the prices of bricks, iron bars and sheets, and wires and cables during the month under review (see **Table A7** in Annexure A).

4. Global Commodity Prices

International commodity prices showed mixed behavior in December 2007 as compared to previous month, but was generally high on YoY basis. 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, reflected by crude oil, as well as the IMF and the World Bank energy indices, showed strong upward movements in December 2007 as compared to the same month of last year. Prices continued to climb in early 2008 on declining stocks and political unrest in Nigeria, (see **Figure 4.1**)⁵.

During December 2007 major food staples, including rice and edible oil, showed a higher YoY growth in their prices compared to the same month last year. On the other hand sugar recorded a minor decline in its price in December 2007 compared to the same month last year. In non-food non-energy group, prices of cotton, steel and urea also increased, with DAP⁶ prices showing a significant increase in December 2007 (see **Table 4.1**).

In December 2007, the crude oil prices touched highs of US\$ 99.64 per barrel largely due to declining stocks and political unrest in Nigeria. According to the World Bank report rising prices have been partly supported by OPEC's decision in December 2007 not to raise the production levels. The spot crude oil price in the international market fluctuated between the ranges of US\$ 87.5 – US\$ 99.6 per barrel during the month under review compared to US\$ 88.6 – US\$ 99.2 per barrel in the previous month.

Table 4.1: International Commodity Prices/Indices

	Dec-06	Oct-07	Nov-07	Dec-07
Energy				
Crude Oil (US\$ per barrel)	53.4	82.2	91.3	89.4
IMF Energy Index (2005=100)	124.5	134.6	130.3	136.5
WB Energy Index (1990=100)	233.9	358.3	399.2	391.3
Coal (\$/MT)	55.0	80.2	90.6	97.5
Food (\$/MT)				
Rice	313.5	335.3	356.5	378.0
Wheat	196.1	335.1	321.8	368.6
Sugar	10.9	10.0	9.9	10.4
Palm Oil	550.8	824.1	877.3	883.4
Soybean Oil	635.6	879.9	988.0	1027.0
Sunflower Oil	673.0	673.0	673.0	673.0
Non-Food Non-Energy				
Cotton Outlook 'A' Index #	132.8	150.9	154.0	152.1
WB Steel Products Index (1990=100)	131.4	139.8	140.3	140.1
DAP (\$/MT)	267.6	451.3	521.0	594.0
Urea (\$/MT)	269.8	333.7	377.1	385.3

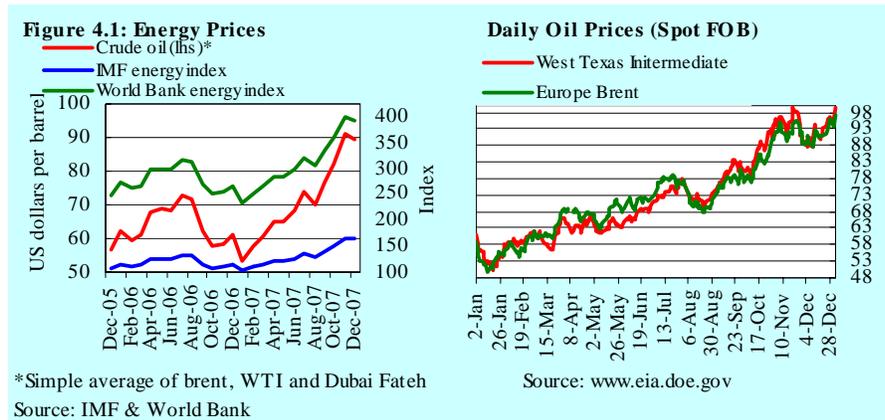
\$/MT = US\$ per metric tonne.

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/

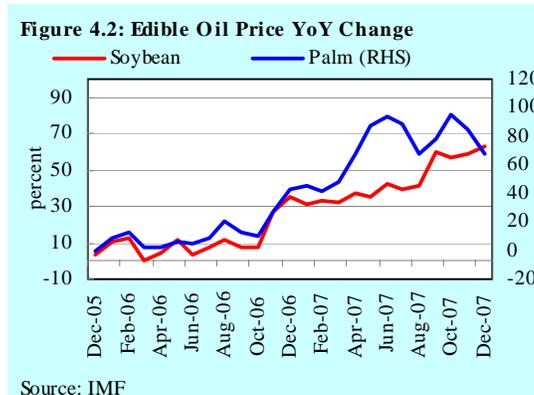
Source: IMF and World Bank.

⁵ World Bank Commodity Market Review, December 10, 2007.

⁶ DAP: Diammonium Phosphate



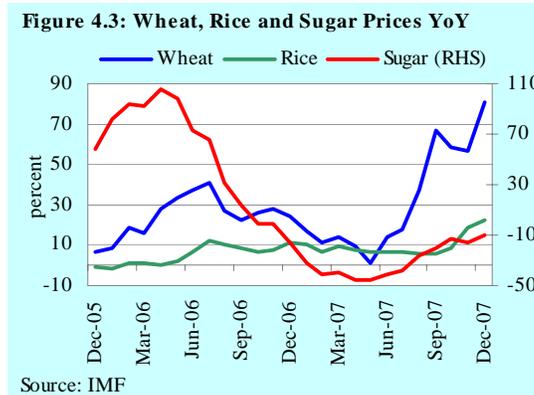
The prices of palm and soybean oil, registered an increase of 67.2 and 63.4 percent respectively (YoY) in December 2007 compared to 43.2 and 34.9 percent in December 2006 respectively. According to the World Bank commodity markets review, increase in soybean oil prices is due to reduced soybean plantation following a large shift of U.S. cropland into



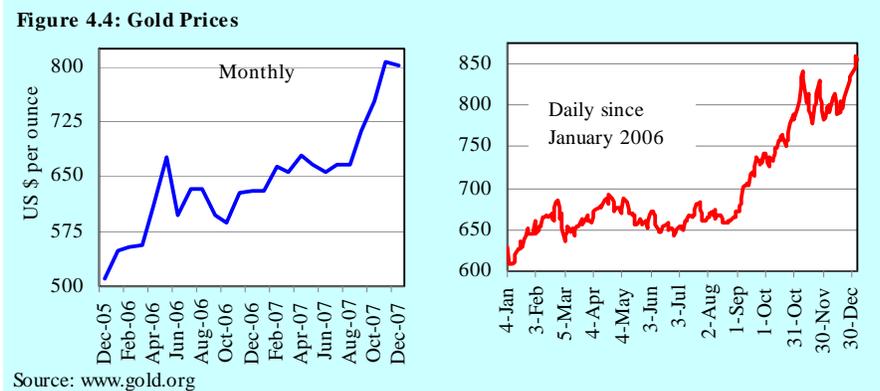
maize last year for the production of biofuels. On the other hand, increase in palm oil price is due to a strong import demand from China and India. Palm oil stocks in Indonesia, the world's largest supplier, are at their lowest levels in years, fueling concerns that prices may increase even further. However, on a month-on-month basis, the palm oil prices decreased by 0.7 percent due to a 10.9 percent (MoM) rise in Malaysian exports of the commodity (see **Figure 4.2**).

The prices of other food items like wheat, rice and sugar also depicted an uptrend. Wheat prices continued to increase in December 2007 and exhibited a sharp YoY growth of 80.4 percent compared to 24.2 percent in the same month last year. On monthly basis wheat prices surged by 14.5 percent in December 2007 compared to the disinflation of 4 percent in November 2007. According to the World Bank commodity market review this was because of an expectation that global stocks would fall to record lows due to drought that has damaged production in several

major exporting countries. However, sugar prices continued to register negative YoY growth in December 2007 and fell by 10.7 percent as compared to the same month last year. However, on monthly basis, sugar prices increased to 5.6 percent, despite record global production, on expectations of strong demand for ethanol ⁷(see **Figure 4.3**).

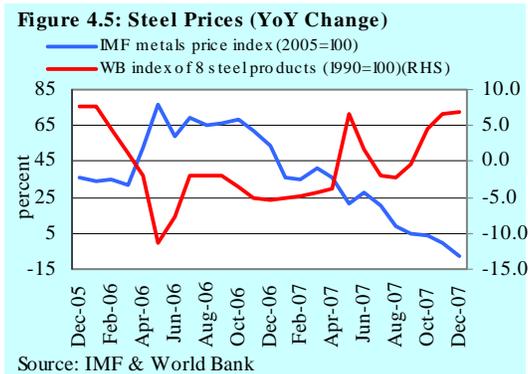


Among non-food group, gold prices in the international market remained at US\$ 803.2 per ounce in December 2007 and exhibited a YoY growth of 27.6 percent compared to 23.4 percent in December 2006. On a daily basis, gold price



remained higher and fluctuated in a wider range, between US\$ 608 per ounce and US\$ 859 per ounce (see **Figure 4.4**).

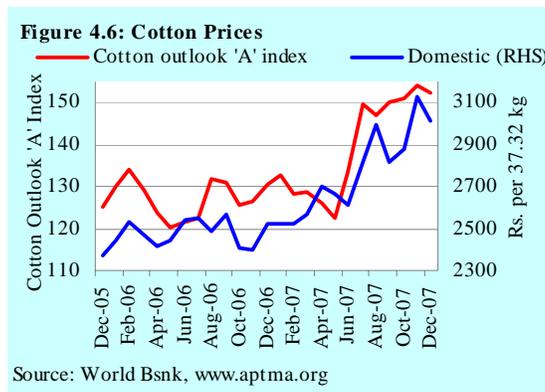
Metal prices represented by the World Bank index of 8-steel products, showed a YoY growth of 6.9 percent in December 2007 compared to 6.7 percent in the previous month. While YoY



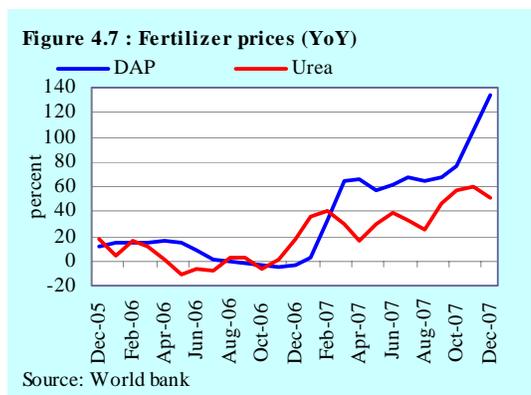
⁷ World Bank Commodity Market Review, December 10, 2007.

growth in the IMF metals price index showed a decline and recorded a negative growth of 8.2 percent as compared to a negative growth of 0.8 percent YoY in November 2007. This slower growth was mainly due to a decline in the prices of aluminum, lead, copper, nickel and zinc (see **Figure 4.5**).

Cotton prices in the international markets represented by the cotton outlook 'A' index increased by 16.6 percent (YoY) in December 2007. Similarly, cotton prices in the domestic market rose by 19.2 percent (YoY) during the month under review. However on monthly basis the cotton outlook 'A' index fell by 5.1 percent and a decline of 10.7 percent was recorded in the domestic market (see **Figure 4.6**).



Like previous month, fertilizer prices remained strong in December 2007. Both DAP⁸ and urea prices exhibited sharp YoY growth of 134.3 and 51.3 percent respectively. This rise in the price levels was due to strong demand and a 70 percent increase in the cost of phosphate rock, the main raw material input for the production of phosphate fertilizers⁹. Similarly on monthly basis, prices of both DAP and urea registered growth of 14.1 & 2.2 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 a decline in YoY inflation falling to 9.2 percent in December 2007 as compared to 12.0 percent in the corresponding month last year. The long-run trend indicated by 12-month moving average also showed a slight decline in inflation during the month under review, recording 8.8 percent inflation as compared to 8.9 percent in December 2006 (see **Figure 5.1**).

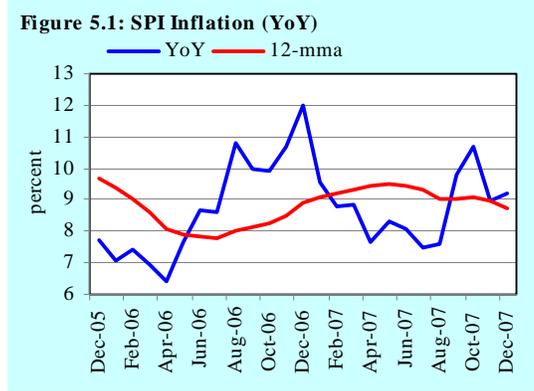
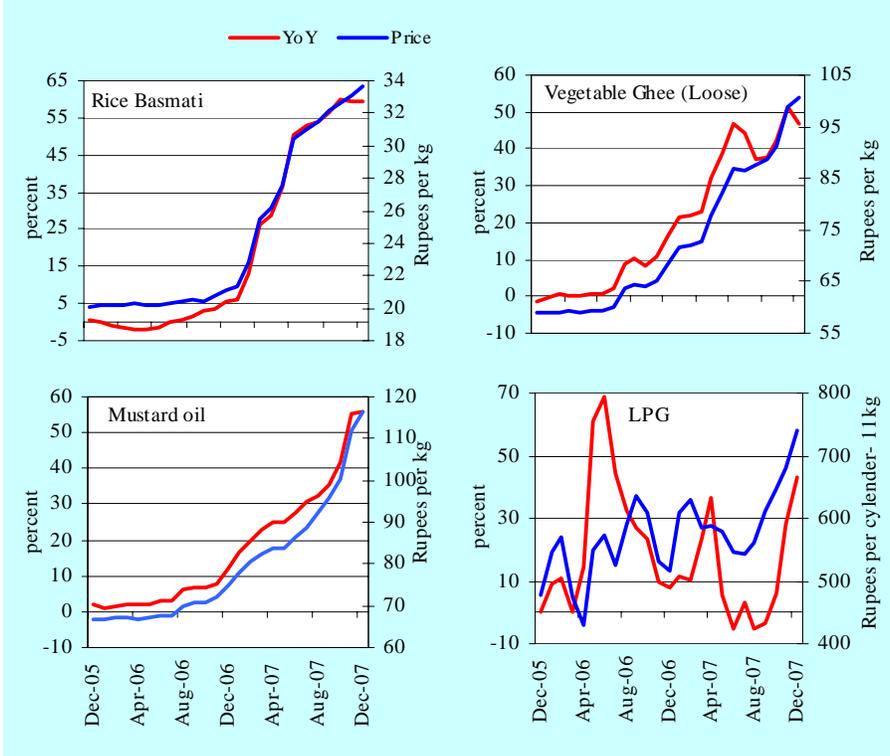


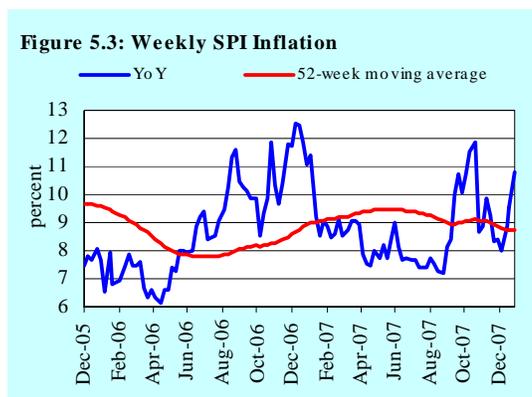
Figure 5.2: SPI Inflation (YoY) in selected Items



Out of 53 items included in the SPI basket, 24 items showed a YoY inflation between 10 to 60 percent, 15 items showed YoY inflation between 5 to 10 percent, 7 items recorded YoY inflation between 0 to 5 percent and 14 items showed no change or deflation in December 2007. The major items that showed SPI YoY inflation higher than average SPI inflation level were rice, mustard oil, vegetable ghee, LPG and wheat (see **Figure 5.2**).

Comparison of prices on the basis of previous month, show that almost 47 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. wheat, showed double digit growth in inflation compared with the previous month (see **Table A8** in Annexure A).

Weekly SPI shows increasing trends in YoY inflation during the month under review and fluctuated between the range of 8.0 percent to 10.8 percent. Thus, after recording weekly SPI YoY inflation of 8.4 percent in the last week of November 2007, SPI inflation increased to 10.8 percent by the last week of the month under review. The long-run trend indicated by 52-week moving average decreased to 8.7 percent lowest since the last week of November 2006 (see **Figure 5.3**).



In December 2007 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 the beginning of the current calendar year (see **Table 5.1**). This is because most of the items showing high inflation are from the food group and some items from non-food group e.g. LPG, which 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
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
Dec-07	11.8	11.5	10.4	7.1	9.2

Annexure A

	Weights	Dec-03	Dec-04	Dec-05	Dec-06	Dec-07
I. Food Group	40.3	9.0	7.9	8.1	12.7	12.2
II. Non-Food Group	59.7	3.1	7.0	8.8	6.2	6.3
Apparel, textile, etc.	6.1	2.4	2.5	3.8	4.0	8.7
House rent	23.4	3.8	11.7	10.3	6.4	8.8
Fuel & lighting	7.3	2.5	3.0	7.1	10.9	5.5
Household furniture & equipt	3.3	2.4	6.9	5.0	6.4	6.5
Transport & com.	7.3	2.9	6.7	19.9	3.4	-3.0
Recreation & entert.	0.8	-1.2	0.0	-0.3	0.3	0.4
Education	3.5	3.7	2.6	6.6	7.3	4.4
Cleaning, laundry, etc.	5.9	2.9	5.2	2.3	4.3	8.9
Medicare	2.1	2.2	0.9	2.3	9.6	7.6
Headline	100	5.4	7.4	8.5	8.9	8.8

Groups	% Changes	Total Number of Items	No. of Items in each Inflation Range			
			Decrease or no change	Subdued increase	Moderate increase	Double digit increase
			(0 % or less)	(0 to 5%)	(5 to 10%)	(over 10%)
I. Food Group	12.5	110	23	9	18	60
II. Non-Food Group	5.9	250	71	80	72	27
Apparel, textile, etc.	8.7	42	2	20	15	5
House rent	8.3	1			1	
Fuel & lighting	4.8	15	7		2	6
Household furniture & equipt	5.9	44	2	12	26	4
Transport & com.	-3.1	43	23	11	8	1
Recreation & entert.	0.3	16	10	3	2	1
Education	4.3	24	8	8	6	2
Cleaning, laundry, etc.	8.8	36		19	11	6
Medicines	7.9	29	19	7	1	2
Overall	8.7	360				

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

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

Items	weights	YoY change		Weighted Contribution	
		Dec-06	Dec-07		
A. Ranked by Weighted Contribution					
1	House Rent Index	23.43	6.37	8.84	23.36
2	Wheat Flour	5.11	1.66	39.98	22.42
3	Vegetable Ghee	2.67	11.76	41.59	12.94
4	Milk Fresh	6.66	11.87	12.74	10.24
5	Rice	1.34	4.08	59.17	8.18
6	Electricity	4.37	0.00	10.07	3.83
7	Fresh Fruits	1.62	8.98	14.49	2.52
8	Meat	2.70	11.49	5.47	2.51
9	Footwear	1.53	2.75	18.64	2.48
10	Wheat	0.48	3.37	43.84	2.38
Total		49.91			90.88
B. Ranked by Percentage Change					
1	Rice	1.34	4.08	59.17	8.18
2	Mustard Oil	0.05	14.88	52.91	0.26
3	Wheat	0.48	3.37	43.84	2.38
4	Vegetable Ghee	2.67	11.76	41.59	12.94
5	Wheat Flour	5.11	1.66	39.98	22.42
6	Pulse Masoor	0.22	-5.38	38.26	0.80
7	Maida	0.11	-0.07	36.44	0.40
8	Spices	0.60	6.27	36.19	1.92
9	Cooking Oil	0.69	7.51	31.14	2.36
10	Milk Powder	0.11	6.32	29.84	0.35
Total		11.37			52.03
C. Ranked by Weights					
1	House Rent Index	23.43	6.37	8.84	23.36
2	Milk Fresh	6.66	11.87	12.74	10.24
3	Wheat Flour	5.11	1.66	39.98	22.42
4	Electricity	4.37	0.00	10.07	3.83
5	Bakery & Confectionary	2.98	4.89	5.22	1.47
6	Meat	2.70	11.49	5.47	2.51
7	Vegetable Ghee	2.67	11.76	41.59	12.94
8	Tuition Fees	2.36	8.77	4.94	1.30
9	Transport Fare/Charges	2.12	2.83	1.81	0.53
10	Natural Gas	2.05	26.07	-0.69	-0.25
Total		54.45			78.36
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 8.8 percent in December 2007.					

Table A4: Distribution of Price Changes - Selected CPI Items, December 2007				
Groups	Decrease or no change	Subdued increase (upto 5%)	Moderate increase (5 to 10%)	Increase of over 10%
Food Group	Potatoes, Gur, Sugar Refined, Cauliflower, Gram Whole Yellow, Besan Av. Qlty. Cabbage, Pomegranate (Annar), Toffee (Hilal)	Pulse Mash (Washed), Betel Nuts, Bananas, Cigarettes Gold Leaf 20'S, Cooked Mutton (Av. Hotel), Cloves Loose Av.Qlty	Salt-Powdered (Lahori) Loose, Almonds Whole Av.Qlty, Ginger, Vinegar Synthetic (Sirka), Cigarettes Morven Gold 20'S, Betel Leaves	Butter Local Packed, Apple Cooking Oil (Dalda), Wheat Flour Bag, Milk Powder Loose/Packed, Rice Basmati 385/386, Tinda, Aloo Bukhara Grapes
Apparel & Textile	Gents Shoes Paul Bata Ladies Sandal Bata	Dopatta Georgette Av.Qlty., Tropical Suiting Law.Pur. Georgette Av.Qlty	Underwear Av.Qlty , Tailoring Awami-Suit (Male), Gents Shoe, Art 1109 Service	Gents Spoung Chappal Bata
House Rent Index			House rent index	
Fuel & Lighting	Kerosene Oil Match Box Small Elect.Charges Upto 50 Units		Tube Light Philips 40 Watts	Firewood Whole Gas Cylinder Stand. Size
H/hold Furniture	Sewing Machine(Singer), Carpet Plain	Aircooler Super Asia Blanket (90" X 54") Celing Fan 48" Super Qlty	Table Spoon S.Steel, Suitcase Rexin (24"X16"X6") Dinning Table 6 Chairs	Washing Machine Singer, Single Bed Without Foam Med., Marriage Hall With Furniture
Transport & Comm.	Tel Charges Out Side City, Petrol Super, Motorcycle Honda Cd-70. High Speed Diesel	Car Suzuki 800 Cc (W/O. A/C), Bicycle With Tyres & Tubes Car Service Charges	Taxi 4 Seater Fare, Tyre Cycle Specify Brand Name, Tyre Motor Cycle Without Tube, Motor Cycle Service Charges	Air Fare Economy Class.
Recreation & Entertainment	V.C.P. Panasonic/Lg/Nat Daily "Jang" Weekly "Mag"	Radio With C.Player National, Cinema A/C. Highest Class	Cinema Non-A/C High Class, Dry Cell 1.5 Volt(Local)	Weekly "Akhbar-E-Jahan"
Education	English Book Class VI, Com. C.D. (Tdk/Imation), Govt. Med. College Fee Mbbs	Fountin Pen Youth China, Govt. University Fee Msc. Maths Book Calss V (T.B.B)	School Fee Primary Eng.Med., Exercise.Book Lined 80/100 P, Paper Foolscape (27"X17")	Ball Pen (Local) Urdu Book Class Ix/X(T.B.B)
Cleaning & Laundry		Toothpaste Macklines 70 Grm, Robin Blue (35 Grams), Cleanser Powder Vim 1000 Gm Nail Polish , .Miss/Medora	Wrist Watch Gents Citizen, Shampoo Plain Medora 200 ML. Dry Cleaning Suit Coat Pant	Silver Tezabi 24 Ct, Toilet Soap Lux 95 Grams Toilet Soap, Lifebouy 140 Grm Gold Tezabi 24 Ct
Medicare	Renitec Tab. 5 Mg. Cac. 1000 Tab Jouhar Joshanda	Septran Tablets, O.R.S. (Nimcol) Cotton Bandage 2" -4"	Galxos-D (450 Grms)	Doctor (Mbbs) Clinic Fee, Polyfax Eye Ointment

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

		Upto Rs:3000			Rs 3001-5000		
		General	Food	Non-Food	General	Food	Non-Food
1	Lahore	7.9	9.9	6.5	8.8	11.7	6.8
2	Faisalabad	8.9	13.7	5.6	9.8	13.9	7.0
3	Rawalpindi	6.5	5.6	7.0	7.2	7.1	7.3
4	Multan	8.9	10.9	7.6	9.0	11.6	7.3
5	Gujranwala	10.3	13.4	8.2	11.9	15.2	9.8
6	Islamabad	8.4	7.3	9.2	8.4	6.9	9.4
7	Sargodha	8.9	11.0	7.5	8.0	9.6	6.8
8	Sialkot	8.0	11.1	5.9	7.7	9.9	6.2
9	Bahawalpur	9.0	11.1	7.6	9.7	12.5	7.8
10	Karachi	9.0	12.1	6.9	9.4	12.9	7.0
11	Hyderabad	12.4	14.7	10.8	11.9	14.1	10.4
12	Sukkur	10.5	13.0	8.9	10.8	13.8	8.8
13	Larkana	10.9	15.0	8.1	11.2	14.9	8.6
14	Peshawar	10.5	12.6	9.1	11.8	15.1	9.5
15	Bannu	13.5	12.9	13.9	14.2	12.9	15.2
16	Quetta	9.6	10.3	9.1	9.4	11.8	7.8
17	Khuzdar	9.9	8.7	10.7	11.8	11.1	12.3
		Rs 5001-12000			above Rs 12000		
		General	Food	Non-Food	General	Food	Non-Food
1	Lahore	8.2	12.0	5.7	6.6	11.0	3.7
2	Faisalabad	9.4	14.8	5.7	7.5	15.1	2.4
3	Rawalpindi	7.5	7.8	7.2	6.9	8.3	6.0
4	Multan	8.5	11.6	6.4	6.9	10.2	4.8
5	Gujranwala	11.6	15.0	9.3	10.5	13.7	8.4
6	Islamabad	8.3	7.8	8.7	7.6	8.1	7.3
7	Sargodha	7.1	8.4	6.2	5.2	7.5	3.6
8	Sialkot	7.1	9.8	5.2	6.3	9.4	4.2
9	Bahawalpur	8.7	12.4	6.2	6.9	11.9	3.6
10	Karachi	9.1	12.6	6.7	7.1	12.0	3.8
11	Hyderabad	12.1	15.2	10.0	10.5	14.1	8.0
12	Sukkur	10.4	13.5	8.2	9.3	12.4	7.2
13	Larkana	11.0	15.6	7.9	10.1	15.8	6.3
14	Peshawar	10.3	14.7	7.3	7.7	12.6	4.4
15	Bannu	14.3	12.9	15.2	12.7	12.7	12.7
16	Quetta	9.1	12.5	6.9	8.7	13.6	5.4
17	Khuzdar	12.1	12.0	12.2	11.3	12.3	10.7

Table A6 : Income Group-wise Inflation (YoY)								percent
	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07
<u>Up to Rs. 3000</u>								
General	7.7	7.7	7.5	7.3	9.9	11.2	10.1	10.4
Food	9.6	9.3	8.7	8.4	13.0	14.9	12.2	12.4
Non-food	6.3	6.6	6.7	6.5	7.6	8.5	8.6	9.0
<u>Rs. 3001-5000</u>								
General	8.0	7.9	7.5	7.3	9.9	11.2	10.2	10.4
Food	10.2	9.6	8.8	8.6	13.4	15.4	12.7	12.8
Non-food	6.5	6.8	6.6	6.5	7.4	8.2	8.3	8.7
<u>Rs. 5000-12000</u>								
General	7.8	7.5	6.9	6.9	9.1	10.2	9.4	9.5
Food	10.9	9.7	8.6	8.7	13.2	15.0	12.6	12.5
Non-food	5.7	5.9	5.6	5.6	6.1	6.7	7.0	7.4
<u>Above Rs. 12000</u>								
General	6.9	6.3	5.6	5.8	7.3	8.0	7.7	7.7
Food	12.3	9.8	8.1	8.6	12.6	13.9	12.3	11.8
Non-food	3.1	3.9	3.8	3.7	3.4	3.6	4.3	4.7
<u>All income groups</u>								
General	7.4	7.0	6.4	6.5	8.4	9.3	8.7	8.8
Food	11.3	9.7	8.5	8.6	13.0	14.7	12.5	12.2
Non-food	4.7	5.1	4.9	4.9	5.0	5.4	5.9	6.3

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

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

Table A8: SPI Item-wise Price Movements

S.No	Items	Unit	Price Dec 07	Percentage change	
				YoY	Monthly
1	Wheat	Kg.	17.1	39.8	11.4
2	Wheat flour a.qlt.	Kg.	18.5	34.1	8.8
3	Rice basmti.broken	Kg.	33.7	59.4	1.7
4	Rice irri-6	Kg.	24.5	49.8	1.6
5	Masur pulse washed	Kg.	60.5	33.1	2.3
6	Moong pulse washed	Kg.	50.0	-5.6	-1.6
7	Mash pulse washed	Kg.	70.2	1.1	-0.5
8	Gram pulse washed	Kg.	39.6	-12.0	-1.5
9	Beef	Kg.	121.5	2.8	0.1
10	Mutton	Kg.	233.3	4.7	0.0
11	Egg hen (farm)	Doz.	57.0	13.4	6.3
12	Bread plain m.s.	Each	18.0	16.5	3.6
13	Sugar	Kg.	27.0	-13.1	-6.6
14	Gur	Kg.	32.1	-19.6	-6.3
15	Milk fresh	Litr	29.6	11.1	0.4
16	Milk powdered nido	400g	145.3	21.4	0.0
17	Curd	Kg.	34.5	11.3	0.0
18	Veg.ghee tin	2.5k	288.7	33.6	3.7
19	Veg.ghee loose	Kg.	100.6	46.9	1.6
20	Mustard oil	Kg.	116.5	55.8	4.1
21	Cooking oil	2.5l	288.7	33.4	3.7
22	Potatoes	Kg.	13.2	-26.8	-24.2
23	Onions	Kg.	18.4	-48.8	-6.8
24	Tomatoes	Kg.	26.7	-42.0	-14.6
25	Bananas	Doz.	28.4	0.5	-0.9
26	Salt powdered	Kg.	5.1	7.3	1.6
27	Red chillies(powd)	Kg.	133.8	37.0	0.4
28	Garlic	Kg.	50.5	-24.3	-2.2
29	Tea packet	250g	65.0	-6.9	0.0
30	Tea (prepared)	Cup	6.7	7.4	2.0

continued

S.No	Items	Unit	Price Dec 07	Percentage change	
				YoY	Monthly
31	Cooked beef plate	Each	32.3	7.1	1.0
32	Cooked dal plate	Each	19.5	8.4	1.5
33	Cigarettes k-2	10's	8.4	5.2	0.0
34	Coarse latha	Mtr.	38.9	11.6	0.7
35	Lawn (avg.+s.qlty)	Mtr.	80.5	2.9	-0.5
36	Voil printed	Mtr.	39.2	4.3	-0.2
37	Shirting	Mtr.	70.9	8.3	0.2
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	40.1	2.6	1.6
42	Firewood	40kg	217.3	14.4	2.8
43	Elec. Bulb 60-wats	Each	12.8	6.3	1.3
44	Match box	Each	0.9	29.0	3.5
45	Washing soap	Cake	9.4	16.3	4.4
46	Bath soap lifebuoy	Cake	17.0	21.5	0.0
47	Chicken (farm)	Kg.	76.0	30.8	-4.1
48	Gas chrg. All clb. Comb	D.mmbt	224.7	-7.8	0.0
49	L.p.g ,(cylender 11kg.)	Each	741.0	43.4	8.7
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
Maximum				59.4	11.4
Median				8.3	0.0
Minimum				-48.8	-24.2

Table A9: Consumer Price Index Numbers by Major Groups and Selected Commodities			
Item and Specification	Weights	Index	
		Dec-06	Dec-07
GENERAL	100.0007	142.26	154.77
FOOD & BEVERAGES.	40.3413	149.59	167.85
1 WHEAT	0.4830	139.86	201.18
2 WHEAT FLOUR	5.1122	136.78	191.46
3 MAIDA	0.1059	129.84	177.15
4 BESAN	0.1320	159.32	146.89
5 RICE	1.3369	128.95	205.25
6 PULSE MASOOR	0.2214	118.29	163.55
7 PULSE MOONG	0.2230	170.49	169.73
8 PULSE MASH	0.2017	149.68	154.29
9 PULSE GRAM	0.4272	145.72	138.51
10 GRAM WHOLE	0.1491	147.89	135.14
11 MUSTARD OIL	0.0456	135.53	207.24
12 COOKING OIL	0.6858	137.62	180.48
13 VEGETABLE GHEE	2.6672	145.43	205.92
14 SUGAR	1.9467	112.54	98.15
15 GUR	0.0735	153.06	122.72
16 TEA	1.2559	114.44	109.06
17 MILK FRESH	6.6615	150.47	169.64
18 MILK POWDER	0.1105	134.03	174.03
19 MILK PRODUCTS	0.5607	136.90	154.57
20 HONEY	0.0358	131.01	132.68
21 CEREALS	0.0878	131.21	153.19
22 JAM,TOMATO,PICKLES & VINEGAR	0.2472	123.71	138.47
23 BEVERAGES	0.7286	127.38	142.29
24 CONDIMENTS	0.3392	113.06	137.06
25 SPICES	0.6008	110.30	150.22
26 DRY FRUIT	0.2760	209.53	231.85
27 BAKERY & CONFECTIONARY	2.9837	117.74	123.89
28 CIGARETTES	0.9527	147.42	158.07
29 BETEL LEAVES & NUTS	0.1851	134.74	146.57
30 READYMADE FOOD	1.6833	153.48	166.44
31 SWEETMEAT & NIMCO	0.3846	149.95	171.27
32 FISH	0.2703	147.50	148.21
33 MEAT	2.6981	212.12	223.73
34 CHICKEN FARM	0.9158	114.18	141.65
35 EGGS	0.4119	190.05	215.44
36 POTATOES	0.5812	215.09	142.29
37 ONIONS	0.6243	348.66	176.41
38 TOMATOES	0.4839	295.93	186.67
39 VEGETABLES	1.8356	159.46	162.81
40 FRESH FRUITS	1.6156	134.39	153.86
APPAREL, TEXTILE & FOOTWEAR.	6.0977	121.99	132.52
41 COTTON CLOTH	1.6197	127.73	136.03
42 SILK,LINEN,WOOLEN/CLOTH	0.5766	126.47	133.59
43 TAILORING CHARGES	0.8636	127.59	135.46
44 HOSIERY	0.1528	135.08	141.30
45 READYMADE GARMENTS	1.2038	121.69	127.65
46 WOOLEN READYMADE GARMENTS	0.1485	138.79	144.11
47 FOOTWEAR	1.5327	108.38	128.58
HOUSE RENT.	23.4298	140.67	153.10
48 HOUSE RENT INDEX (Combined)	23.4298	140.67	153.10
FUEL AND LIGHTING.	7.2912	148.21	156.37
49 KEROSENE	0.1366	235.87	235.87
50 FIREWOOD	0.4778	201.70	230.87
51 MATCH BOX	0.1301	100.00	100.00
52 BULB & TUBE	0.1311	86.73	93.52

(continued)

Table A9 (continued)

Item and Specification	Weights	Index	
		Dec-06	Dec-07
53 ELECTRICITY	4.3698	108.59	119.53
54 NATURAL GAS	2.0458	221.51	219.98
H.HOLD.FURNITURE & EQUIPMENT ETC.	3.2862	131.00	139.58
55 UTENSILS	0.3690	118.78	124.50
56 PLASTIC PRODUCTS	0.1055	136.87	146.26
57 SUITCASE	0.0470	120.85	130.00
58 HOUSE HOLD EQUIPMENTS	0.0953	117.94	124.03
59 FURNITURE (Ready Made)	0.3054	129.67	141.45
60 FURNISHING	0.6362	127.84	135.22
61 ELECT.IRON FANS & WASHING MACHINE	0.1889	119.38	127.53
62 SEWING MACHINE,CLOCK AND NEEDLES	0.1270	117.48	119.53
63 REFRIGERATOR & AIRCONDITIONER	0.1756	95.16	101.54
64 MARRIAGE HALL	0.0445	137.98	155.06
65 HOUSE HOLD SERVANT	1.1918	146.05	156.20
TRANSPORT & COMMUNICATION.	7.3222	151.72	147.17
66 PETROL	1.7253	188.63	175.59
67 DIESEL	0.2070	245.02	238.74
68 CNG. FILLING CHARGES	0.1649	140.08	143.12
69 SERVICE CHARGES	0.3835	129.31	135.18
70 VEHICLES	0.2596	100.23	101.39
71 TYRE & TUBE	0.2831	120.91	127.09
72 TRANSPORT FARE/CHARGES	2.1236	171.02	174.11
73 TRAIN FARE	0.1514	170.01	170.01
74 AIR FARE	0.0983	218.72	253.00
75 COMMUNICATION	1.9255	99.42	86.79
RECREATION & ENTERTAINMENT.	0.8259	105.85	106.24
76 RECREATION	0.3399	100.00	101.91
77 ENTERTAINMENT	0.4860	109.94	109.26
EDUCATION.	3.4548	133.53	139.46
78 TUTION FEES	2.3629	138.73	145.58
79 STATIONERY	0.3500	120.29	130.20
80 TEXT BOOKS	0.6894	126.25	127.63
81 COMPUTER & ALLIED PRODUCTS	0.0525	83.24	81.52
CLEANING LAUNDRY & PER.APPEARANCE.	5.8788	124.29	135.28
82 WASHING SOAP & DETERGENT	1.5535	115.65	124.18
83 TOILET SOAP	0.7436	118.33	144.11
84 TOOTH PASTE	0.4036	106.05	108.42
85 SHAVING ARTICLES	0.3480	109.97	118.71
86 COSMETICS	1.4272	122.88	127.91
87 WATCHES	0.0552	118.84	125.18
88 JEWELLERY	0.3936	190.90	229.09
89 LAUNDRY CHARGES	0.2207	140.64	150.93
90 HAIR CUT & BEAUTY PARLOUR CHARGES	0.7334	127.95	132.56
MEDICARE.	2.0728	120.92	130.05
91 DRUGS & MEDICARES	1.0752	106.66	107.25
92 DOCTOR'S FEE	0.9976	136.30	154.62

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

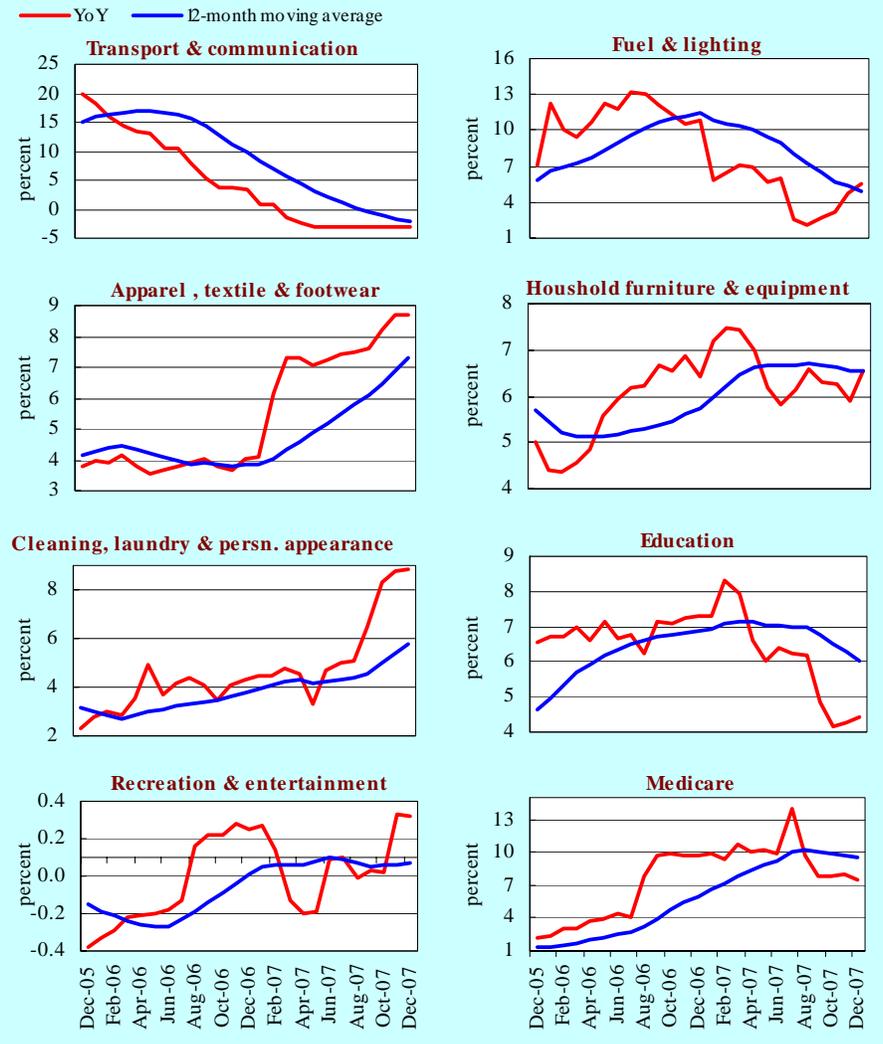


Figure A2: Frequency Distribution of Price Changes of CPI Items, December 2007

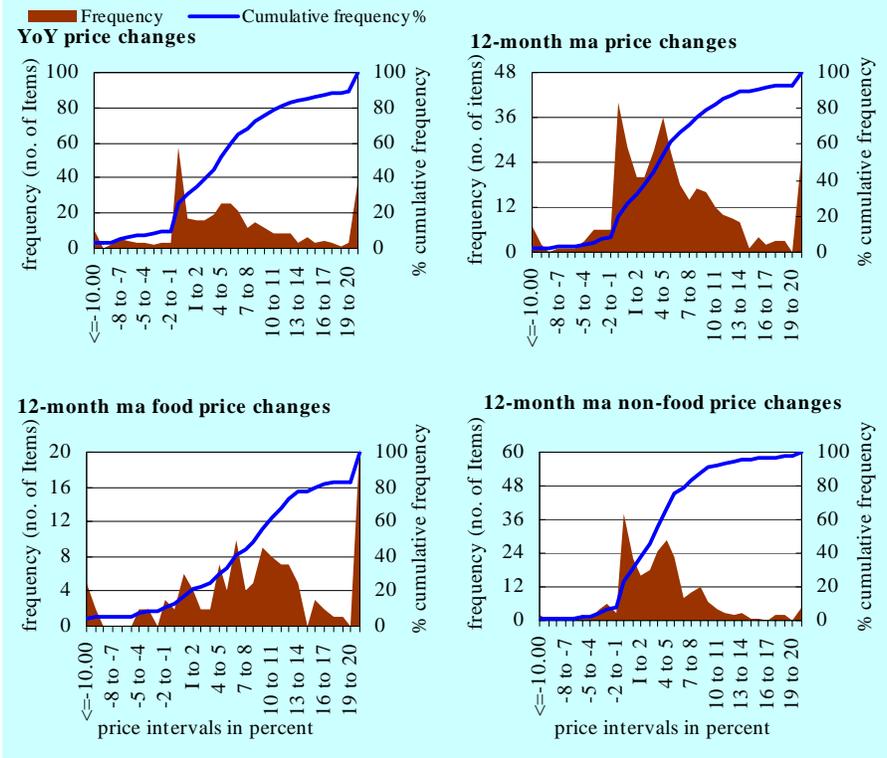
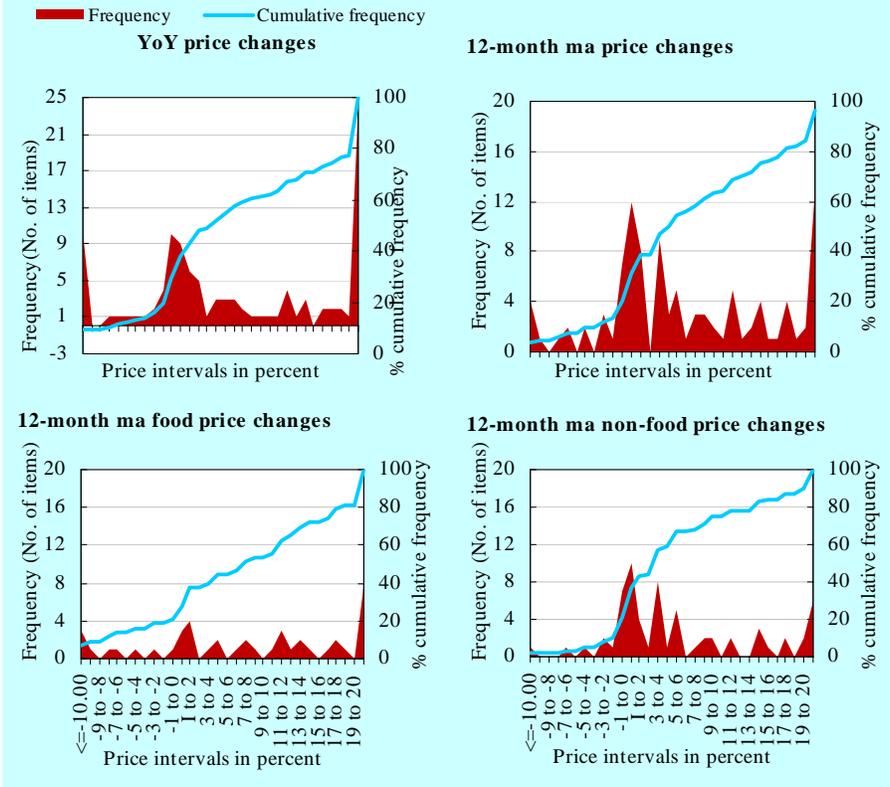


Figure A3: Frequency Distribution of Price Changes of WPI Items, December 2007



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