

Inflation Monitor

August 2008



State Bank of Pakistan

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Overview

Inflationary pressures strengthened in the economy with CPI inflation (YoY) soaring to reach 25.3 percent during August 2008 compared to 6.5 percent in the same month last year. Both food and non-food groups of CPI contributed in this upsurge in headline inflation. Food inflation (YoY) remained persistently high and was recorded at 34.1 percent compared to 8.6 percent in August 2007. This rising trend was mainly led by increase in the prices of some key food commodities such as coriander seed powder (130 percent), pulse masoor (130 percent), rice irri (121 percent), wheat (76 percent), and maida (68 percent). Similarly, non-food inflation (YoY) also increased significantly reaching 18.7 percent in August 2008 compared to 4.9 percent during the same month last year. Amongst the various components of CPI non-food group, *transport & communication*, *house rent index (HRI)* and *fuel & lighting* sub-group witnessed significant increase in inflation (YoY) during August 2008 compared to the same month last year. Other measures of inflation i.e. wholesale price index (WPI) and sensitive price indicator (SPI) also showed strong growth during the month under review (see **Table 1.1**).

Table 1.1: Inflation (YoY)

	percent						
	CPI			Core Inflation		WPI	SPI**
	General	Food	Non-food	NFNE *	Trimmed		
Aug-07	6.5	8.6	4.9	6.0	6.7	8.0	7.6
Sep-07	8.4	13.0	5.0	6.1	8.0	9.3	9.8
Oct-07	9.3	14.7	5.4	6.5	8.3	11.8	10.7
Nov-07	8.7	12.5	5.9	6.9	8.6	12.6	9.0
Dec-07	8.8	12.2	6.3	7.2	8.7	12.2	9.2
Jan-08	11.9	18.2	7.3	7.8	9.6	15.5	13.1
Feb-08	11.3	16.0	7.8	8.1	9.6	16.4	12.3
Mar-08	14.1	20.6	9.4	9.3	11.3	19.8	16.2
Apr-08	17.2	25.5	11.2	10.8	14.1	23.5	22.3
May-08	19.3	28.5	12.5	12.3	15.1	28.2	26.2
Jun-08	21.5	32.0	13.8	13.0	17.2	30.6	26.3
Jul-08	24.3	33.8	17.3	14.7	19.7	34.0	30.6
Aug-08	25.3	34.1	18.7	16.4	21.0	35.7	31.8

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

During August 2008, month-on-month (MoM) CPI registered 2.1 percent inflation compared to 1.3 percent in the same month last year. CPI food inflation (MoM) was recorded at 2.6 percent compared to 2.4 percent in August 2007. Similarly non-food inflation (MoM) was also recorded higher at 1.8 percent compared to 0.5 percent in the same month last year (see **Table 1.2**).

Both measures of core inflation (non-food non-energy and 20 percent trimmed mean) continued to show acceleration during August 2008. Core inflation (YoY) based on NFNE reached 16.4 percent in August 2008 compared to 6.0 percent in the same month last year. Similarly core inflation (YoY) based on 20 percent trimmed-mean also witnessed significant increase and was recorded at 21.0 percent compared to 6.7 percent in August 2007.

Inflation measured by wholesale price index (WPI) continued its upward trend and reached 35.7 percent compared to 8.0 percent in the same month last year. Both food and non-food groups of WPI contributed in the inflationary trend. WPI food group inflation (YoY) was recorded at 33.5 percent in August 2008 compared to 11.5 percent a year earlier.

WPI non-food inflation (YoY) reached 37.4 percent during August 2008 compared to 5.6 percent in August 2007.

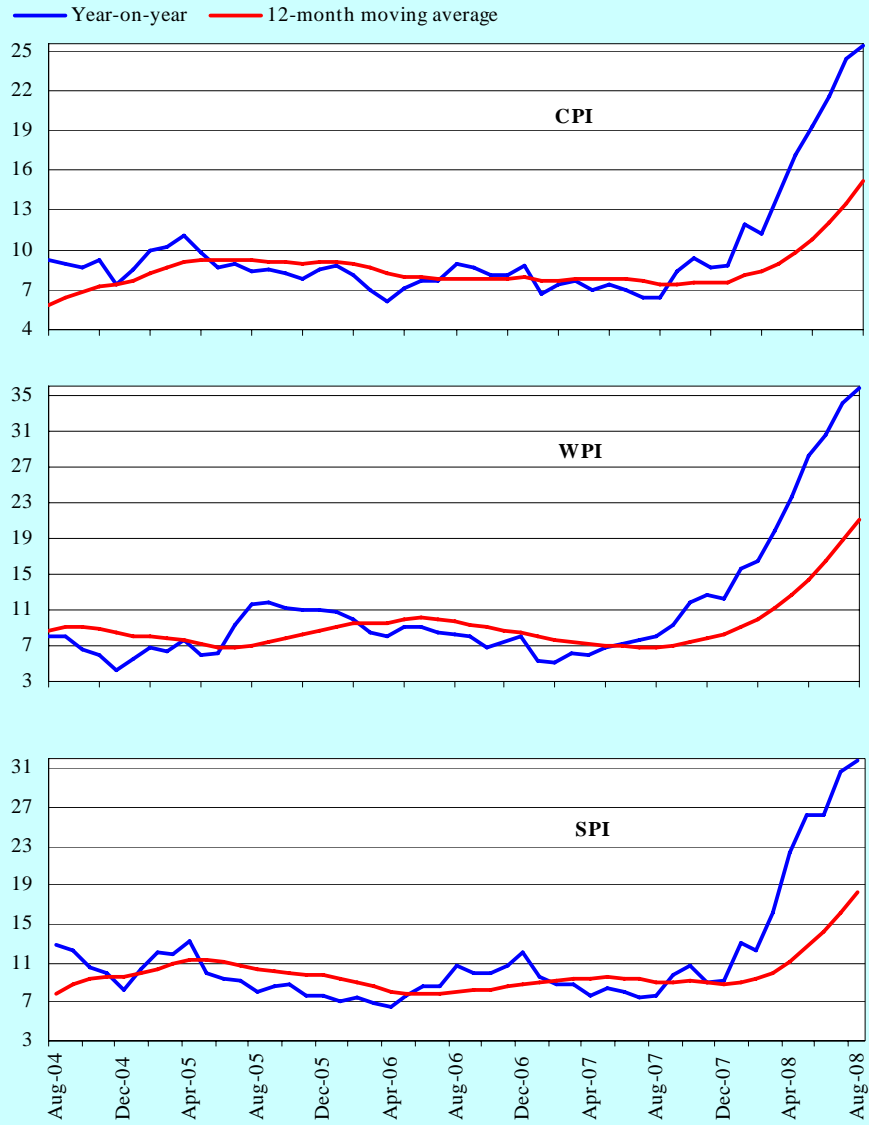
Sensitive price indicator (SPI) also witnessed strong growth as SPI inflation reached 31.8 percent (YoY) during August 2008 compared to 7.6 percent in the corresponding month last year (see **Figure 1.1**).

Table 1.2: Different Dimensions of Inflation (percent)

	Aug-06	Aug-07	Aug-08	5-year average#
Year-on-year (August over August)				
Overall CPI	8.9	6.5	25.3	7.0
Food group	11.1	8.6	34.1	8.5
Non-food group	7.4	4.9	18.7	5.9
Core Inflation				
NFNE*	6.6	6.0	16.4	5.9
Trimmed	7.2	6.7	21.0	6.4
Period average (July over August)				
Overall CPI	8.3	6.4	24.8	6.9
Food group	9.2	8.5	34.0	8.2
Non-food group	7.6	4.9	18.0	5.9
Core Inflation				
NFNE*	6.6	6.0	15.5	5.9
Trimmed	6.8	6.6	20.3	6.3
12-month moving average				
Overall CPI	7.9	7.5	15.1	6.6
Food group	7.0	10.1	21.9	7.8
Non-food group	8.4	5.6	10.1	5.8
Core Inflation				
NFNE*	7.3	5.8	10.0	5.5
Trimmed	6.9	6.8	12.4	6.0
Monthly (August over July)				
Overall CPI	1.2	1.3	2.1	0.8
Food group	2.2	2.4	2.6	1.1
Non-food group	0.5	0.5	1.8	0.6
Core Inflation				
NFNE*	0.5	0.6	2.0	0.5
Trimmed	0.7	0.7	1.3	0.5

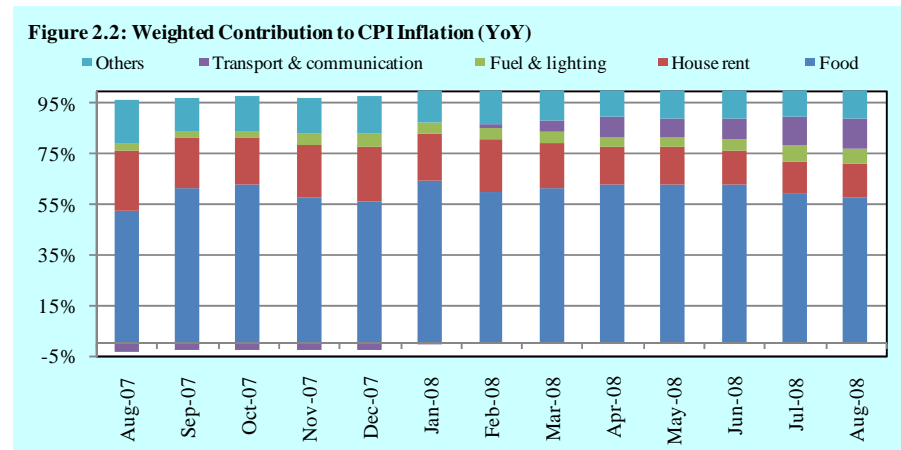
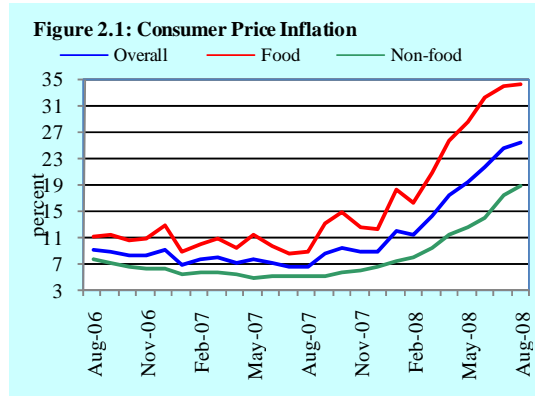
* NFNE is Non-food non-energy inflation
5-year average excluding FY09

Figure 1.1: Movements in Price Indices (percent change)



2. Consumer Price Index

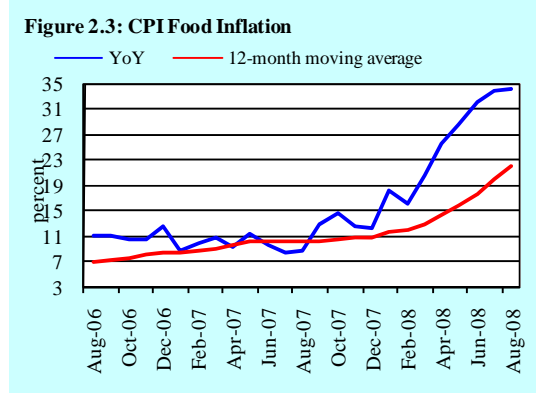
Inflationary pressures remained in the economy for the first two months of FY09. CPI inflation (YoY) reached 25.3 percent in August 2008 compared to 6.5 percent in the corresponding month last year. Both food and non-food groups contributed to this rise. Food inflation rose to 34.1 percent compared to 8.6 percent in August 2007. Non-food inflation (YoY) also showed significant rise and reached 18.7 percent in August 2008 compared to 4.9 percent during the same month last year (see **Figure 2.1**).



Weighted contribution of food group in overall inflation reached 57.8 percent in August 2008 compared to 56.2 percent during August 2007. Whereas, the weighted contribution of non-food group declined from 43.8 percent in August 2007 to 42.2 percent in August 2008. Similar to last six months, the weighted contribution of *transport & communication* sub-group, showed increase and was recorded at 11.5 percent in August 2008 as compared to (-) 3.7 percent during the same month last year (see **Figure 2.2**).

2.1 Food Inflation

CPI food inflation (YoY) exhibited increasing trend during the first two months of FY09 reaching 34.1 percent during August 2008 compared to 8.6 percent in the same month last year. A detailed analysis of CPI food basket showed that out of 113 items reported in the basket, 91 including pulse masoor, rice, chilli powder, wheat, mustard oil, vegetable ghee, cooking oil,

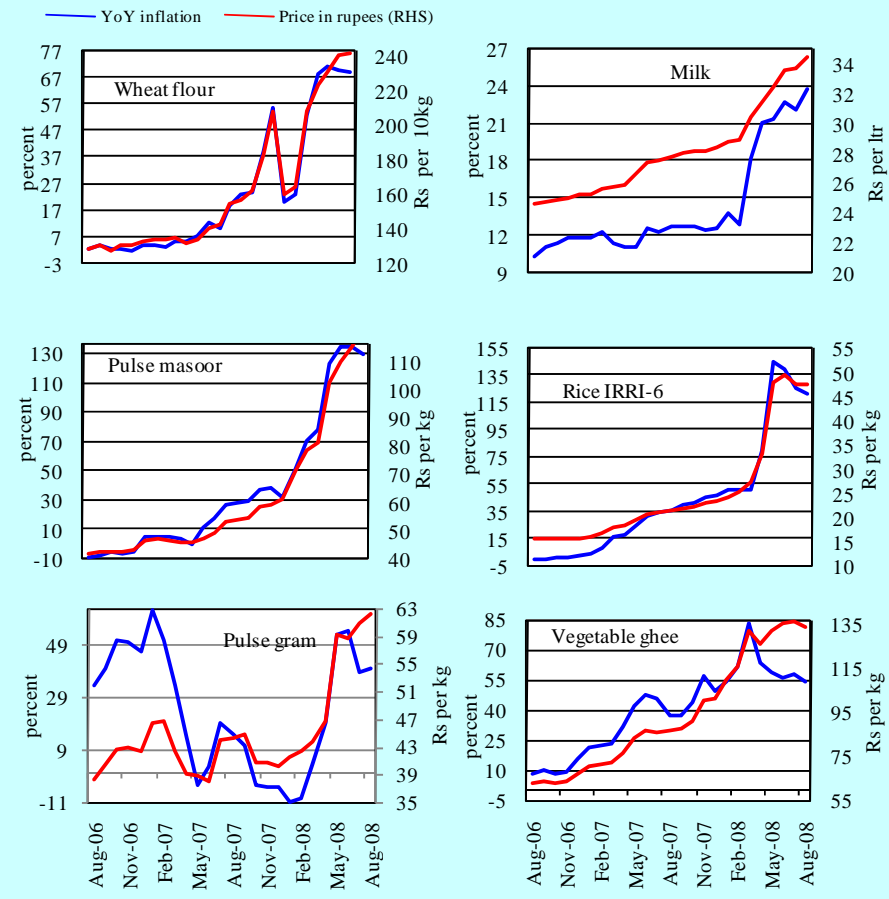


etc. exhibited price change between 10 percent to 130 percent, 18 showed a price change between 0 to 10 percent and remaining 4 either declined or remained unchanged (3 declined and 1 remained unchanged). Price of three items i.e. coriander seed powder (130 percent), pulse masoor (130 percent) and rice irri-6 (122 percent), recorded significant increase during the month under review (see **Figure 2.4** and **Table A2** in Annexure A).

Similar to previous month weighted contribution, six out of top ten items of CPI basket were from the food group during August 2008 including wheat flour, fresh milk, vegetable ghee, rice, readymade food and meat. Combined weighted contribution of these food items in the overall inflation was recorded at 37.1 percent (see **Table A3** in the Annexure). Moreover, within food group, just four items i.e. wheat flour, milk fresh, vegetable ghee and rice contributed about 57.6 percent to the YoY food inflation.

Disaggregation of food items , month-on-month (MoM) basis revealed that 19 items including tomatoes, ginger, chicken, onion, tea, coriander seed powder, etc. showed double digit growth in prices. Whereas prices of 17 items including arvi, apple, banana, rice irri-6, sugar, pulse moong, vegetable ghee, etc. declined during the month under review.

Figure 2.4: Price Trends in Key Food Items



2.2 Non-food Inflation

CPI non-food inflation accelerating further reached 18.7 percent in August 2008 (see **Figure 2.5**). All components of non-food group exhibited rising trend, but the most significant being in the *transport & communication* sub-group during the month under review.

Adjustment in domestic prices of petrol, diesel and CNG was the main source of increase in inflation in *transport & communication* sub- group. Inflation (YoY) in this sub-group was recorded at 40.5 percent during August 2008 compared to (-) 3.0 percent in August 2007 (see **Figure 2.6**).

Inflation (YoY) in *house rent index* showed continuously uptrend reaching 14.2 percent in August 2008 compared to 7.2 percent during August 2007 (see **Figure 2.7**). This sharp surge is attributed to rising prices of construction material like cement, cement blocks, iron bars & sheets, paints & varnishes, etc.

Apparel, textile & footwear sub-group's inflation (YoY) remained in double digit for the second consecutive month and was recorded at 14.9 percent in August 2008 compared with 7.5 percent in August 2007. A detailed analysis of items in this sub-group revealed that prices of items such as cotton cloth, silk/woolen cloth,

Figure 2.5: CPI Non-food Inflation

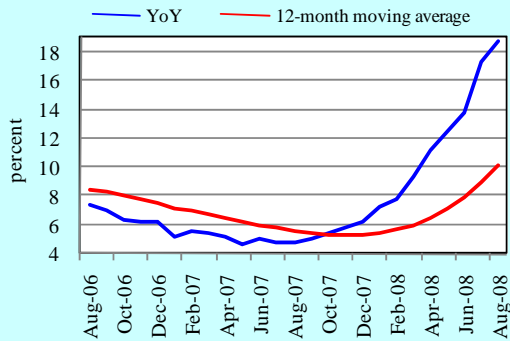


Figure 2.6: Transport & Communication Inflation

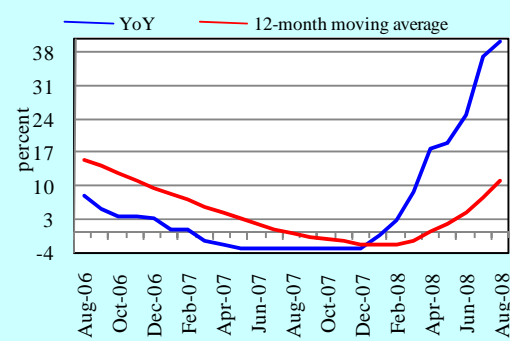
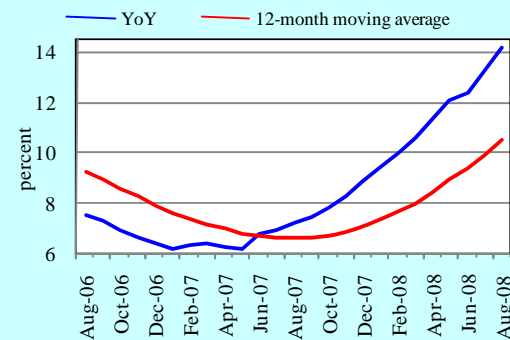


Figure 2.7: House Rent Inflation



tailoring charges, hosiery, readymade garments, footwear, etc. were responsible for the acceleration in this group.

Fuel & lighting sub-group also registered an uptrend reaching 21.0 percent in August 2008 compared to 2.2 percent in August 2007. Similar to previous month, the items contributing this significant increase include match box, kerosene oil, gas charges, firewood whole, gas cylinder, etc.

Household furniture & equipment sub-group's inflation (YoY) stayed in double digit reaching 12.0 percent compared to 6.6 percent in the corresponding month last year. Item wise analysis of this sub-group showed that out of 44 items, 37 exhibited double digit price change during the month under review.

Inflation (YoY) in *recreation & entertainment* sub-group continued with uptrend during 11.7 August 2008 being marked at 11.7 percent during August 2008 compared to no change in the same month last year.

Cleaning, laundry & personal appearance sub-group also continued its upward trend to reach 19.6 percent during August 2008 compared to 5.1 percent in August 2007. Detailed item wise analysis of this sub-group revealed that 50 percent items showed price change between 10 to 60 percent during the month under review.

Inflation (YoY) in *education* sub-group also remained in double digit in first two months of FY09 and was recorded at 15.1 percent during August 2008 compared to 6.2 percent in the corresponding month last year. Detailed look at the items in this sub-group revealed that out of 24 items 14 showed price change in double digits.

Medicare sub-group registered 9.9 percent inflation (YoY) during August 2008 compared to 9.8 percent in the corresponding month last year (see **Figure A1** in Annexure).

Out of 250 non-food items included in the CPI basket, 154 witnessed double digit price change. The commodities showing double digit price change include rail and road fares, kerosene oil, high speed diesel, petrol super, gold and silver tezabi, and firewood whole, etc. Further 44 commodities showed moderate price change in the range of 5 to 10 percent; all other commodities witnessed either price increase of less than 5 percent or decline (see **Table A2** in the Annexure). The items that showed either negative or no price change included electric charges upto 50 units, Urdu and English text books, telephone charges, a number of durable goods like computer CD rom, some medicines, etc. (see **Table A4** in the Annexure).

2.3 City-wise Inflation

Inflation (YoY) in major cities including Islamabad, Lahore, Karachi, Quetta and Peshawar continued with uptrend during August 2008 reaching 21.3, 21.9, 24.8, 28.6 and 27.0 percent compared to 7.8, 6.5, 7.7, 7.1 and 5.7 percent in the corresponding month last year. Inflation (YoY) in Quetta and Peshawar remained higher than the overall CPI inflation since April 2008 (see **Table 2.1**).

	Over all CPI	Islamabad	Lahore	Karachi	Quetta	Peshawar
Aug-07	6.5	7.8	6.5	7.7	7.1	5.7
Sep-07	8.4	7.6	7.9	8.1	7.8	8.6
Oct-07	9.3	8.6	7.8	10.0	10.1	9.5
Nov-07	8.7	8.0	7.0	8.7	9.8	9.8
Dec-07	8.8	7.7	7.5	8.1	9.0	9.2
Jan-08	11.9	9.1	10.1	10.7	12.3	12.2
Feb-08	11.3	9.8	10.4	9.8	11.1	11.4
Mar-08	14.1	11.6	12.0	13.3	13.8	15.8
Apr-08	17.2	13.8	15.4	16.0	17.5	18.9
May-08	19.3	16.4	17.4	18.6	21.8	21.8
Jun-08	21.5	17.7	18.0	21.1	25.3	22.3
Jul-08	24.3	20.9	21.0	23.4	26.3	26.0
Aug-08	25.3	21.3	21.9	24.8	28.6	27.0

City-wise inflation (YoY) based on all 35 cities indicates that 22 cities fall in the category of high inflation, while remaining 13 cities recorded inflation below average CPI inflation. Loralai maintained its position as the highest inflation city with 32.6 percent, followed by Turbat (32.2 percent) and Khuzdar (31.9 percent). On the other hand, the lowest CPI (YoY) inflation was recorded in Islamabad (21.3 percent). Comparison of CPI food and non-food inflation (YoY) among 35 cities revealed that, highest food inflation (YoY) was recorded in Loralai (45.1 percent) and lowest in Islamabad (26.2 percent), whereas the highest non-food inflation was observed in Turbat (25.0 percent) and the lowest in Lahore (16.0 percent) during August 2008 (see **Table 2.2**).

Table 2.2: City wise Inflation in CPI (YoY), August 2008

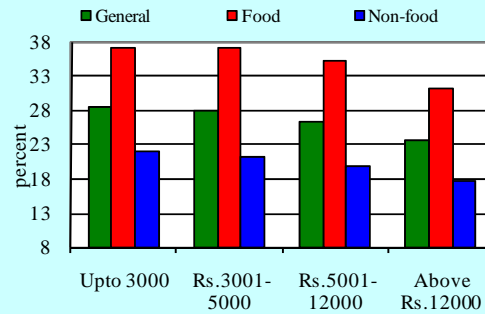
	High inflation cities			Low inflation cities			
	General	Food	Non-food	General	Food	Non-food	
Loralai	32.6	45.1	24.1	Samundari	25.2	31.3	20.8
Turbat	32.2	42.8	25.0	Jhelum	25.1	35.0	17.9
Khuzdar	31.9	44.4	23.1	Karachi	24.8	31.9	19.5
Shahdadpur	31.3	42.0	23.5	Bahawalpur	24.3	33.2	17.2
Nawabshah	29.7	39.1	23.0	Sargodha	24.1	29.7	19.9
Bannu	29.7	42.5	20.7	Gujranwala	24.0	29.3	20.0
Quetta	28.6	42.3	18.5	Sialkot	23.7	31.0	17.8
D.I.Khan	28.6	41.2	19.5	Attock	23.7	30.1	19.1
Sukkur	28.6	40.0	20.4	Faisalabad	23.2	28.0	19.2
Larkana	28.0	36.4	21.5	Multan	22.7	30.9	16.4
Mardan	27.4	34.4	22.2	Rawalpindi	22.4	28.2	18.0
Peshawar	27.0	35.8	20.5	Lahore	21.9	29.2	16.0
Mirpur Khas	26.9	33.7	21.8	Islamabad	21.3	26.2	17.8
Mianwali	26.7	33.9	21.3				
Bahawalnagar	26.4	32.4	21.9				
Okara	26.2	34.0	20.3				
D.G. Khan	26.1	29.5	23.5				
Abbotabad	26.1	35.2	19.0				
Kunri	25.9	32.0	21.2				
Hyderabad	25.8	33.5	19.9				
Jhang	25.5	31.3	21.3				
Vehari	25.4	33.5	19.3				

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 data also revealed upward inflationary trends for all income groups during August 2008 compared with same month last year. Similar to the previous month, inflation (YoY) in all income groups, except the highest income group, was recorded higher than overall CPI inflation (YoY) (see **Figure 2.8**).

Figure 2.8 : Income Group-wise CPI Inflation (YoY) August 2008



The highest CPI inflation (YoY) of 28.2 percent was recorded for the lowest income group earning upto Rs. 3000, followed by income group of Rs. 3001 to 5000 at 28.0 percent and income group of Rs. 5001 to 12000 at 26.4 percent. The highest income group of above Rs. 12000 experienced the lowest inflation of 23.7 percent.

Income group and city wise data on selected 17 cities indicates that the highest overall CPI inflation (YoY) was recorded in Khuzdar for all income groups except income group of above Rs. 12000 for which Bannu recorded the highest inflation. Whereas the lowest CPI inflation (YoY) was recorded in Islamabad for all income groups except the highest income group for which Lahore recorded lowest inflation during the month under review (see **Table A5** in annexure A).

2.5 Services and Non-services Inflation

Segregation of CPI basket into services¹ and non-services sectors depicted a significant acceleration in inflation (YoY) in both sectors however, surge in the latter is more pronounced. Inflation (YoY) in services sector was recorded at 16.8 percent during the month under review compared to 5.5 percent in August 2007. Similarly, inflation (YoY) in the non-services sector was recorded at 31.7 percent compared to 7.3 percent in the corresponding month last year (see **Figure 2.9**).

Further segregation of non-services sector into durable² and non-durable sub-groups, showed increase in inflation (YoY) for both of these sub-groups compared

¹ Services group of the CPI basket includes items like house rent index, electricity charges, marriage halls, household servants, transport fare, communication, recreation, tuition fees, laundry charges, hair cut & beauty parlor charges, doctor's fee, tailoring charges, etc.

² 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.

to the same month last year. Inflation (YoY) in durable goods was recorded at 26.2 percent compared to 5.1 percent in the corresponding month last year. This significant increase was attributed by the rising prices of jewelry, furniture and electric fans, etc. Inflation (YoY) in non-durable goods was recorded at 31.8 percent compared to 4.8 percent in the same month last year. The contributing items for this significant increase were same as in the last month, i.e. pulse masoor, rice, wheat flour, maida, mustard oil, spices, kerosene oil, cooking oil and vegetable ghee, etc. (see **Figure 2.10**).

Figure 2.9: Services & Non-services Inflation

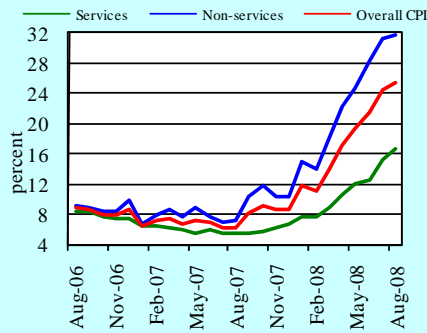
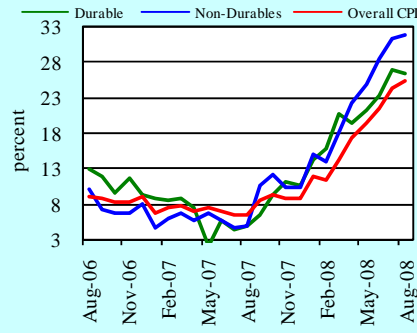


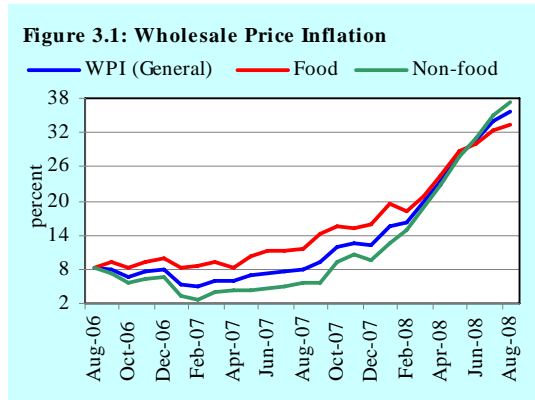
Figure 2.10: Durables and Non-durables Inflation



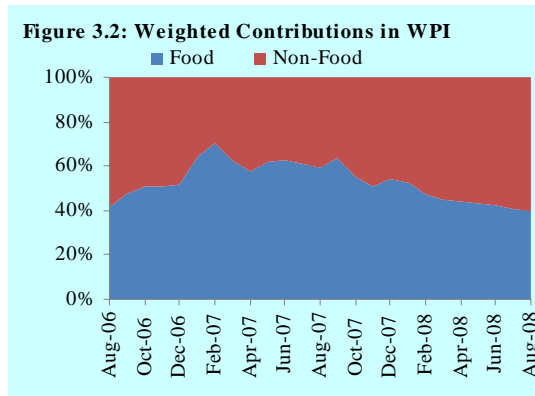
3. Wholesale Price Index

Wholesale price index (WPI) inflation continued to remain strong and reached 35.7 percent (YoY) during August 2008 compared to 8.0 percent during the same month last year. Although both food and non-food groups of WPI contributed to this steep rise in inflation, but WPI non-food inflation was more pronounced as it registered significant YoY inflation of 37.4 percent in

August 2008, compared to 5.6 percent during the same month last year. The food group of WPI also witnessed inflation of 33.5 percent (YoY) during the month under review compared to 11.5 percent in August 2007 (see **Figure 3.1**).



Owing to persistent rise in WPI non-food inflation over the last few months, its weighted contribution in overall WPI inflation has shown a significant increase. The non-food group's contribution rose to 59.8 percent in August 2008, compared to 40.5 percent in August 2007. Accordingly, the weighted contribution of food group in overall WPI inflation came down to 40.2 percent in August 2008 compared to 59.5 percent in the same month last year (see **Figure 3.2**).



A detailed analysis of WPI basket shows that out of 106 items, 72 exhibited double digit YoY growth in their prices, ranging between 10.8 to 140.9 percent, during August 2008. The major items that exhibited double digit YoY inflation include pulse masoor, furnace oil, fertilizers, coke, rice, maida, wheat, mustard/rapeseed, kerosene oil, etc. Eighteen items exhibited growth between 5 to 10 percent in their wholesale prices whereas 10 items showed subdued increase. Prices of the remaining six items either declined or showed no change during the month under review (see **Table 3.1**).

Inflation under WPI food group was recorded at 33.5 percent (YoY) during August 2008 compared to 11.5 percent in August 2007. The individual food items that recorded high inflation include pulse masoor, bajra, rice, maida, wheat, besan, and gram split, etc. Similar to previous month, the highest inflation among food group was recorded in the wholesale price of pulse masoor that showed an increase of more than 100 percent for the fourth consecutive month. Conversely, two food items showed YoY deflation of different magnitudes in their wholesale prices including tomatoes (-14.4 percent), and gur (-7.3 percent) (see **Table A7 & Figure 3.3**).

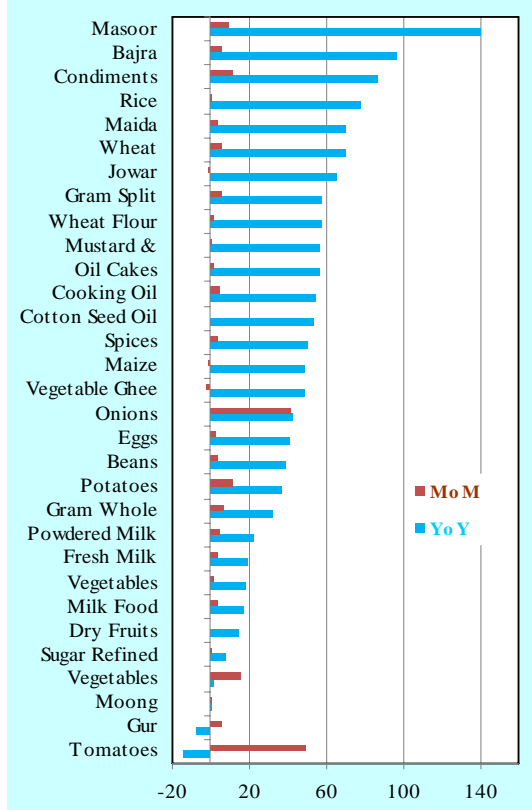
Double digit YoY inflation was recorded in 33 out of the total 43 food items during August 2008. Two food items exhibited growth between 5 to 10 percent in their wholesale prices, while six items recorded subdued inflation of up to 5 percent. Wholesale prices of the remaining two food items declined in this period.

WPI non-food group continued to show strong growth and recorded 37.4 percent (YoY) inflation during the month under review compared to 5.6 percent in August 2007. All sub-groups of the non-food

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

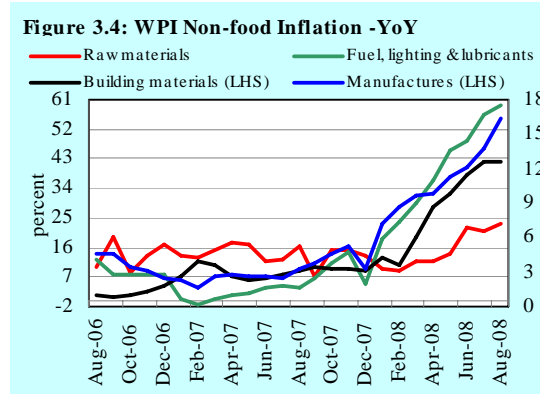
No. of Items					
Groups	Decrease or no change	Up to 5%	5%-10%	More than 10%	Total
A. Food	2	6	2	33	43
B. Non-Food	4	4	16	39	63
Raw material	1	1	2	5	9
Fuel, lighting & lubricant			1	10	11
Manufactures	2	3	11	16	32
Building material	1		2	8	11
Total	6	10	18	72	106

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



group witnessed significantly higher YoY inflation in August 2008 compared to August 2007 (see **Figure 3.4**).

Within WPI non-food, the major items that contributed to the significant rise in inflation include coke, furnace oil, fertilizers, rapeseeds, diesel, iron bars & sheets, etc. In particular, the wholesale price of furnace oil continued to show strong growth and recorded YoY inflation of more than 80 percent for the fourth consecutive month. On the other hand, prices of four non-food items, including sugarcane, tiles etc., either declined or showed no change in August 2008 (see **Figure 3.5**).



In terms of weighted contribution of sub-indices to WPI non-food inflation, the *fuel, lighting & lubricant* sub-group continued to show significant increase as it reached 66.0 percent in August 2008 compared to 27.3 percent in the same month last year (see **Table 3.2**). This significantly high weighted contribution of the sub-group reflects the combined impact of high international crude oil prices as well as exchange rate depreciation witnessed during the last few months³.

	Aug-07	Dec-07	Jul-08	Aug-08
Raw materials	37.3	13.2	7.9	8.6
Fuel, lighting & lubricants	27.3	56.5	67.9	66.0
Manufactures	21.9	22.1	14.0	15.7
Building materials	13.5	8.2	10.2	9.7

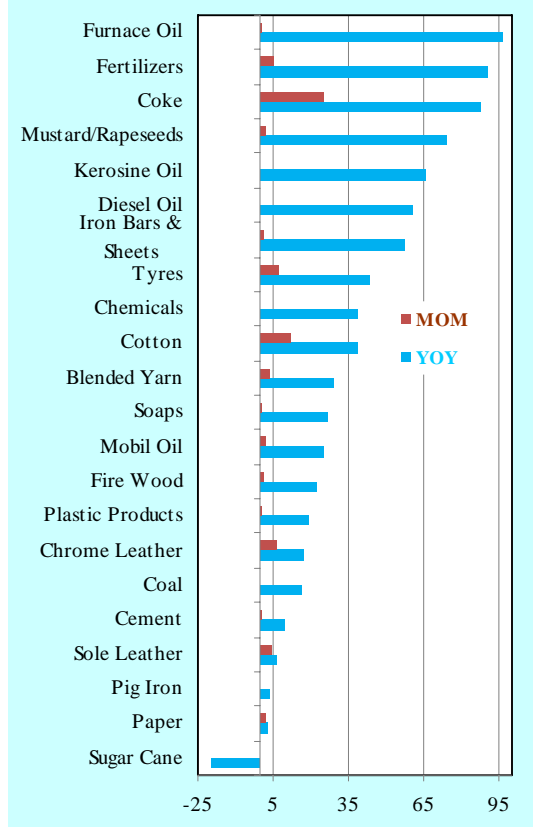
The *fuel, lightning & lubricants* sub-group continued to show strong upward movement recording an unprecedented YoY inflation of 59.4 percent during August 2008 compared to only 3.6 percent inflation in August 2007. This acceleration in the sub-group can be attributed to high crude oil prices in the international markets that directly affect the wholesale prices of items like coke, furnace oil and mobil oil in the domestic market. All items included in the sub-group, except electricity agriculture tariff-D, recorded double digit YoY inflation with prices of items like coke and furnace oil recording more than 85 percent inflation during the month under review (see **Table A7** in Annexure A).

³ Despite an ease in international oil prices during August 2008, these remain significantly high relative to a year earlier. For details see chapter on Global Commodity Prices.

The *raw material* sub-group registered surge in inflation as it reached 23.4 percent (YoY) during August 2008 compared to 16.5 percent in the same month last year. Within the sub-group, the wholesale prices of sugarcane declined while the wholesale prices of mustard/rapeseed, cotton and cotton seed, etc. recorded double digit YoY inflation during the month under review.

The *manufactures* sub-index of WPI non-food group continued on its uptrend seen since January 2008 and recorded inflation of 16.3 percent, highest since February 1995. This acceleration can be attributed to double-digit YoY rise in the wholesale prices of items such as fertilizers, tyres, tubes, and chemicals etc. Within the *manufactures* sub-group, highest inflation was recorded by fertilizers reaching 90.5 percent in August 2008 reflecting high DAP⁴ prices in the international market. Similarly the *building material* sub-index continued on its uptrend seen since February 2008 and witnessed YoY inflation of 42.2 percent in August 2008 compared to 9.0 percent during the same month last year. The major items that contributed to the rise in inflation in the sub-group include iron bars & sheets, wires & cables and cement blocks etc. (see **Table A7** in Annexure A).

Figure 3.5: Wholesale Prices Inflation (%) in Selected Non-food Items (August 2008)

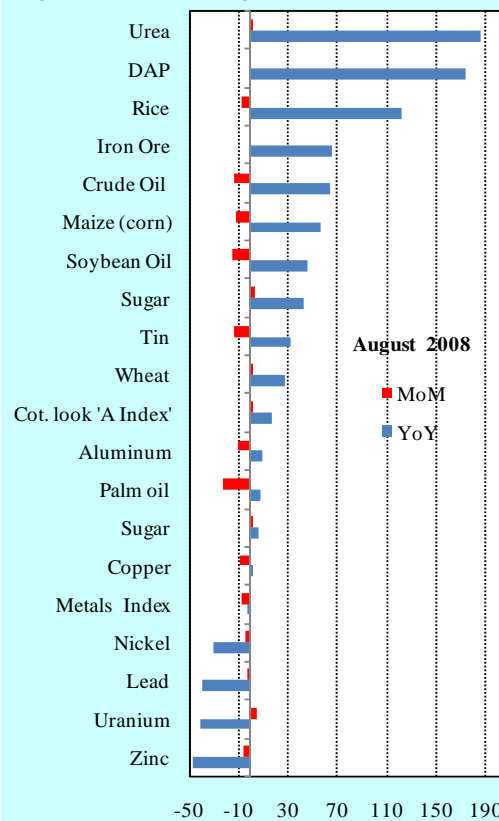


⁴ DAP: Diammonium Phosphate

4. Global Commodity Prices

Global commodity prices remained high as reflected by food, energy and fertilizer prices during August 2008. The pace of increase in commodity prices, however, has slowed down except for fertilizers and cotton mainly on account of an appreciation of US dollar against all major currencies. The prices of fertilizers (DAP and Urea) and rice exhibited robust YoY growth of more than 100 percent. On the other hand, metal prices fell on YoY basis which is reflected from a decline in the prices of zinc, uranium, lead, nickel (see **Figure 4.1**). The sharp rise in fertilizer prices was mainly due to its strong demand for new crops and supply constraints around the world on the back of expectations of export tariffs from China and Russia⁵. Whereas the strong YoY increase in rice prices (122.3 percent) in international market was mainly due to the base effect.

Figure 4.1: Percent Change in Price (US\$)



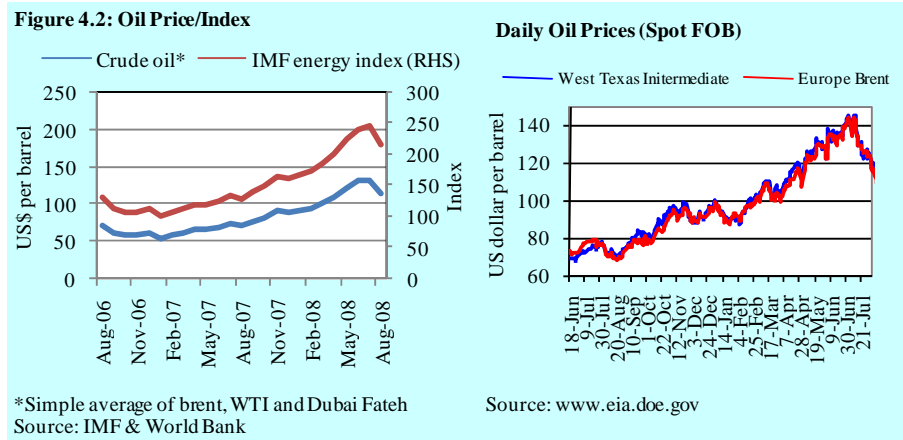
The price of crude oil⁶ decelerated on MoM basis and was recorded at US\$114.6 per barrel. The current deceleration can be attributed to the declining demand in the US and Europe, strengthening of US dollar against euro, higher OPEC production and prospects of rising non-OPEC crude oil supply. This is also reflected by IMF energy index that showed deceleration in August 2008. Spot crude oil price⁷ fluctuated between US\$124 and US\$111 per barrel during August

⁵ WB Commodity Market Review, September 11, 2008.

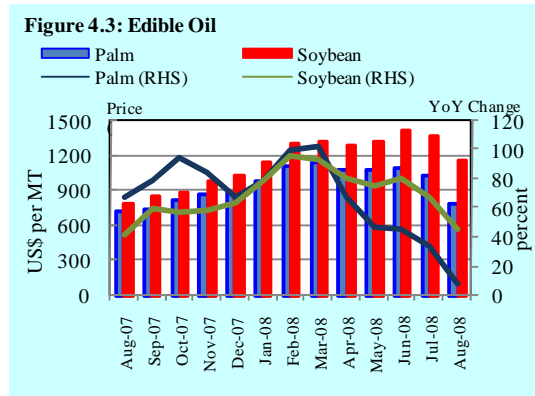
⁶ Simple average of Brent, WTI and Dubai Fateh

⁷ Average of West Texas International (WTI) and Europe Brent oil

2008 compared to the higher range of US\$133 and US\$123 per barrel during July 2008. (see **Figure 4.2**).



Within food commodities, edible oil prices continued to decelerate on YoY basis. Palm oil prices slowed down and witnessed a single digit YoY growth of 8.5 percent first time in 25 months. The deceleration in palm oil price is mainly the result of a sharp rise in its production in Malaysia and Indonesia amid weakening demand in Asia, according to the World Bank commodity market review.

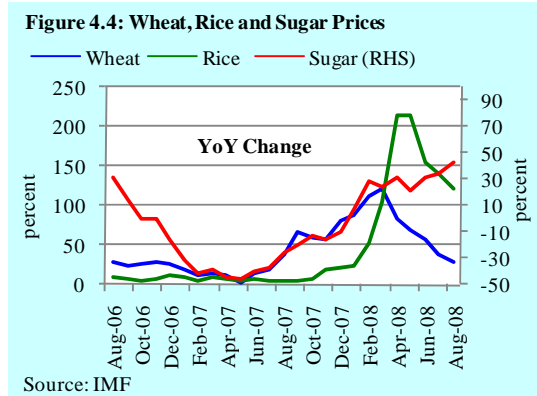


Soybean oil prices also decelerated on projections that global soybean production will increase⁸ (see **Figure 4.3**).

In case of food grains, the prices of wheat and rice seems to be peaked out in March 2008 and April 2008. Since March 2008, wheat prices have declined 25 percent. Current deceleration in wheat prices is due to the expectations that increased seeding and favorable weather will boost global production.

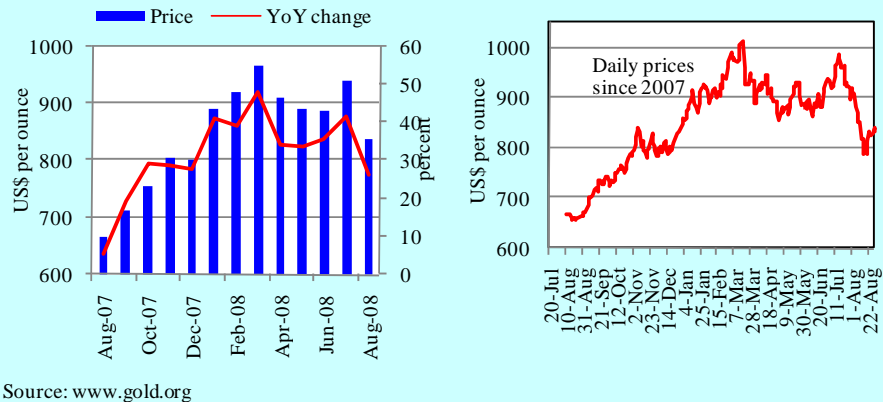
⁸ Bloomberg

Global growers are estimated to harvest a record 670.8 million metric tons of the grain in the year ending May 31, 2008 up 9.9 percent from a year earlier, the USDA forecast on August 12, 2008. World stockpiles of wheat are expected to jump 18 percent to reach 136.2 million tons⁹. Contrary to wheat and rice prices, price of sugar accelerated in international



market due to falling global stocks as the US – the world's fifth-biggest sugar producer – to refine less sugar than previously estimated, according to USDA future plans to increase the proportion of sugarcane for the production of ethanol¹⁰ (see **Figure 4.4**).

Figure 4.5: Gold



In case of precious metals, YoY growth in gold price slowed down in August 2008 but remained higher than its price for the same month last year in the international market. The slowdown in gold prices in the international market is attributed to the reduced demand for the metal as an inflationary hedge as a result of strengthening dollar¹¹.

⁹ Bloomberg

¹⁰ Bloomberg

¹¹ WB Commodity Market Review, September 11, 2008.

Daily gold price remained volatile and fluctuated in a wide range of US\$ 786.5 and US\$ 912.5 per ounce during the month under review (see **Figure 4.5**).

Metal prices declined for the fifth consecutive month in August 2008 over the corresponding month as indicated by IMF metal price index. Within metal group, the prices of zinc, uranium, lead, copper and nickel dropped due to weak demand for steel and rising stocks in the world. Copper prices fell on account of weak demand in China and OECD – particularly in construction sector¹² (see **Figure 4.6**).

After showing deceleration for two months, cotton prices accelerated in August 2008 as reflected by cotton outlook ‘A’ index that witnessed a YoY increase of 17.2 percent. Lower cotton crop in US as a result of decline in acreage for the white fiber can be attributed to the current uptick in cotton price. Cotton prices in domestic market registered a YoY increase of 37.9 percent during the month under review (see **Figure 4.7**).

Figure 4.6: IMF Metal Price Index (2005=100)

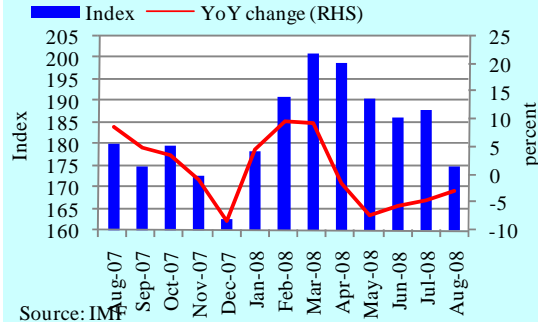


Figure 4.7: Cotton Prices (YoY Change)

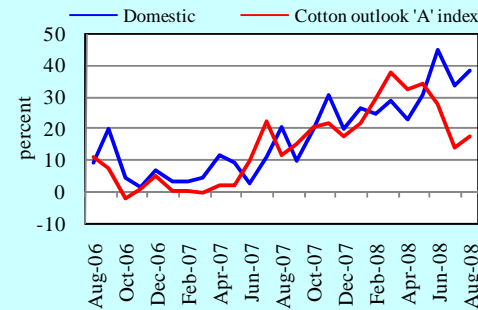
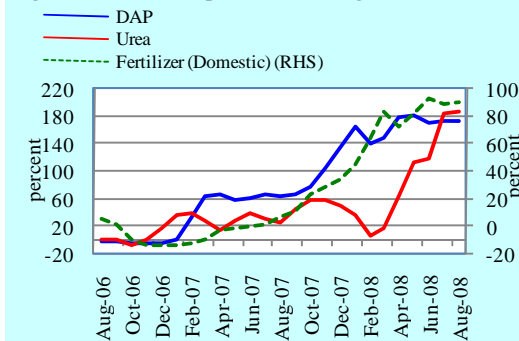


Figure 4.8 : Fertilizer prices (YoY change)



¹² WB Commodity Markets Review (September 11, 2008)

The prices of DAP and Urea continued to show strong YoY increase of 174.1 and 186.2 percent on account of strong demand for new crops, imposition of export taxes by Russia and China and high energy prices that have increased production cost (see **Figure 4.8**). Following trend in international market, fertilizer prices in domestic market increased by 90.5 percent on YoY basis in this period.

5. Sensitive Price Indicator

Inflation measured by sensitive price indicator (SPI) remained strong and rose by 31.8 percent during August 2008 compared to 7.6 percent during the same month last year. The persistence of inflationary pressures are visible in the long-run trend in SPI, indicated by 12-month moving average (12mma), that rose to 18.3 percent during the month under review (see **Figure 5.1**).

A disaggregated analysis of the SPI basket reveals that there are now more individual items (43) showing double digit inflation during the month under review as compared to the same month last year (19) (see **Table 5.1**). The individual items that mainly contributed to the significant increase in SPI inflation (YoY) during August 2008 include pulse masoor (124.4 percent), rice irri-6 (110.0 percent), kerosene (83.8 percent), diesel (71.4 percent), wheat (71.3 percent), and rice basmati (71.2 percent).

Month over month (MoM) SPI inflation, however, showed relative weakness during August 2008 and was recorded at 2.9 percent compared to 4.6 percent in July 2008. This can be attributed to deflation negative inflation shown by items such as bananas (-9.9 percent), red chillies (-3.8 percent), vegetable ghee (-1.9 percent), rice irri (-1.0 percent), etc. (see **Table A8** in Annexure A).

Figure 5.1: SPI Inflation (YoY)

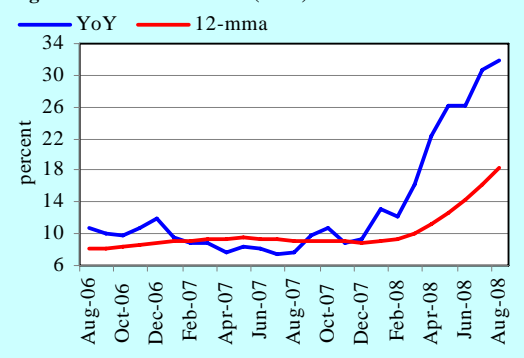
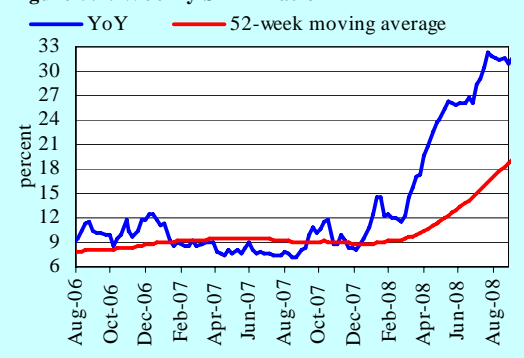


Table 5.1: Distribution of Price Changes of SPI Basket (YoY)

Percent Change	Number of items			
	Aug-07	Dec-07	Jul-08	Aug-08
0 or less	15	14	6	4
0 to 5	9	7	2	3
5 to 10	10	8	5	3
10 or above	19	24	40	43
Minimum	-36.5	-48.8	-29.2	-18.1
Maximum	77.9	59.4	133.2	124.4

Figure 5.2: Weekly SPI Inflation



Similar to monthly SPI inflation, weekly SPI inflation also registered declining trend during August 2008. Thus after registering 31.9 percent during the last week of July 2008, weekly SPI inflation declined to 30.9 percent during the last week of August 2008 (see **Figure 5.2**). The long run trend in weekly SPI inflation indicated by 52 week moving average, however, remained strong and reached 18.2 percent during the last week of August 2008 compared to 9.0 percent during the same period last year.

According to income group-wise SPI data, inflation (YoY) for all income groups remained strong during the month under review compared to August 2007. All income groups, except the highest income group, observed higher SPI inflation than the average SPI inflation during August 2008.

	percent			
	Aug-07	Dec-07	Jul-08	Aug-08
Up to Rs. 3000	9.2	11.8	33.0	33.9
Rs. 3001-5000	9.0	11.5	32.1	32.7
Rs. 5000-12000	8.1	10.4	30.9	32.1
Above Rs. 12000	5.5	7.1	29.4	31.6
All income groups	7.6	9.2	30.6	31.8

As in the previous month, the incidence of SPI inflation (YoY) was the highest for the lowest income group (see **Table 5.2**).

Annexure A

	Weights	Aug-04	Aug-05	Aug-06	Aug-07	Aug-08
I. Food Group	40.3	14.4	7.8	11.1	8.6	34.1
II. Non-Food Group	59.7	5.9	8.8	7.4	4.9	18.7
Apparel, textile, etc.	6.1	1.1	5.1	3.9	7.5	14.9
House rent	23.4	9.6	11.5	7.5	7.2	14.2
Fuel & lighting	7.3	2.6	6.2	13.0	2.2	21.0
Household furniture & equipment	3.3	5.4	5.7	6.2	6.6	12.0
Transport & com.	7.3	7.2	16.2	8.0	-3.0	40.5
Recreation & entertainment	0.8	-0.9	-0.3	0.2	0.0	11.7
Education	3.5	2.4	5.3	6.3	6.2	15.4
Cleaning, laundry, etc.	5.9	4.4	3.0	4.4	5.1	19.6
Medicare	2.1	1.1	1.3	7.9	9.8	9.9
Headline	100	9.2	8.4	8.9	6.5	25.3

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	34.1	113	4	8	10	91
II. Non-Food Group	18.7	250	33	19	44	154
Apparel, textile, etc.	14.9	42	1	3	10	28
House rent	14.2	1				1
Fuel & lighting	21.0	15	1		5	9
Household furniture & equipment	12.0	44		1	6	37
Transport & com.	40.5	43	6		2	35
Recreation & entertainment	11.7	16	2	5	2	7
Education	15.4	24	5	2	3	14
Cleaning, laundry, etc.	19.6	36	1	4	13	18
Medicines	9.9	29	17	4	3	5
Overall	25.3	363				

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

Table A3: Top Ten Contribution to YoY CPI Inflation in August 2008

Items	weights	YoY change		Weighted Contribution	
		Aug-07	Aug-08		
A. Ranked by Weighted Contribution					
1	Wheat Flour	5.11	10.47	68.84	13.89
2	House Rent Index	23.43	7.17	14.18	13.06
3	Milk Fresh	6.66	12.91	23.73	6.96
4	Vegetable Ghee	2.67	33.50	51.21	6.65
5	Rice	1.34	51.97	84.99	5.78
6	Petrol	1.73	-6.91	61.59	4.95
7	Transport Fare/Charges	2.12	2.09	44.73	4.36
8	Natural Gas	2.05	-7.79	31.09	3.49
9	Readymade Food	1.68	7.87	27.26	1.96
10	Meat	2.70	6.22	11.57	1.83
Total		49.48			62.92
B. Ranked by Percentage Change					
1	Pulse Masoor	0.22	27.19	129.78	1.12
2	Match Box	0.13	0.00	100.00	0.35
3	Rice	1.34	51.97	84.99	5.78
4	Kerosene	0.14	0.00	84.33	0.72
5	Condiments	0.34	7.09	79.97	0.86
6	Wheat	0.48	8.81	76.06	1.42
7	Diesel	0.21	-2.56	71.05	0.93
8	Wheat Flour	5.11	10.47	68.84	13.89
9	Maida	0.11	9.40	68.42	0.27
10	Mustard Oil	0.05	33.45	65.38	0.13
		8.12			25.47
C. Ranked by Weights					
1	House Rent Index	23.43	7.17	14.18	13.06
2	Milk Fresh	6.66	12.91	23.73	6.96
3	Wheat Flour	5.11	10.47	68.84	13.89
4	Electricity	4.37	10.07	6.44	0.89
5	Bakery & Confectionary	2.98	3.49	13.59	1.30
6	Meat	2.70	6.22	11.57	1.83
7	Vegetable Ghee	2.67	33.50	51.21	6.65
8	Tuition Fees	2.36	7.45	12.03	1.09
9	Transport Fare/Charges	2.12	2.09	44.73	4.36
10	Natural Gas	2.05	-7.79	31.09	3.49
		54.45			53.51

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 25.3 percent in August 2008.

Table A4: Distribution of Price Changes - Selected CPI Items, August 2008				
Groups	Decrease or no change	Subdued increase (upto 5%)	Moderate increase (5 to 10%)	Increase of over 10%
Food Group			Sugar Refined	Milk Fresh (Unboiled)
			Mutton Av.Qlty.	Wheat Flour Bag
			Apple	Corriander Seed
			Cigarettes Gold Leaf 20'S	Powder National
			Cigarettes Capstan 10'S	Vegetable Ghee
	Chowkelate Candy	Toffee (Hilal)		Wheat Flour
	Garlic	Fish-Rahu Medium Size	Cucumber (Kheera)	Fine/Superior.
	Arvi	Cigarettes K-2 10'S	Jam Ahmed/Mitchelles	Vegetable Ghee Tin
	Gur Av.Qlty	Pulse Moong (Washed)	Rooh Afza	Chicken Farm Broiler
		Pulse Mash (Washed)	Squash-Mitchelles	Cooking Oil (Dalda)
				Onion
Apparel & Textile		Pullover Ladies	School Uniform	
		Oxford/Bon.	Kameez Shawar.Girl	
		Pullover (Gents) Others	Tailoring Coat-Pant	Lawn Av.Qlty.
	Pullover Gents	Suit, School Uni.		Long Cloth Av.Qlty.
	Gents Sandal Bata	Oxford/Bon.	Pant,Shirt Boys	Shirting Av.Qlty.
House Rent Index				House Rent Index
Fuel & Lighting			Electric .Charges Above 1000 Units, 301 - 1000 Units	Electric Charges 101 - 300 Units
	Electric .Charges Upto 50 Units		Gas Charges 3.3719 - 6.7438 Mmb	Firewood Whole
H/hold Furniture			Household Servant Female P/T	Quilt (Lihaf) 3 Kg.
			Blanket (90" X 54")	Cotton, Tea Set Pak.
		Carpet Plain Av. Qlty	Farshi Dari 12'X9' Av.Qlty	Chinaware 21 Pc
Transport & Comm.	Telephone Charges Local Call, Tel			Petrol Super, A/C Bus
	Charges Out Side City			Fare Outside City
	Car Tax For 800CC To 1300CC		Tyre Car With Tube	High Speed Diesel
	Plateform Ticket		General, Motorcycle	HSd, CNG Filling
			Yamaha 100CC	Charges
Recreation & Entertainment	V.C.P.		Cinema A/C. Highest	Daily "Jang"
	Panasonic/LG/Nat	T.V. 20" Colored, Video	Class	Daily "Nawa-E-Waqt"
	TV Licence Fee domestic	Cassette Blk TDK /Sony	Cinema Non-A/C	Daily "Dawn"
		Tape Recorder Cassette	High Class	
Education		Govt. Engg. Coll. Fee I	Urdu Book Class V,	School Fee 2 nd year
	Govt. College Fee Ist. Year, Govt. College	College Fee MBBs	Govt. University Fee	Eng./Med., School
	Fee 4Th. Year	Computer With Printer & Speaker	MSc, Fountin Pen	Fee Primary
		Youth China		Eng./Med. Paper
				Foolscaps
Cleaning & Laundry			Perfume Medium Size	
			Medora/Broa, Talc	
			Powder Vicroay,	Haircut Charges For
	Toothpaste Macklines 70 Gram	Lipstick S.Miss/Medora	Black Cat, Face cream	Men, Washing Soap,
		Hair-Colour Begin	Ponds, Cleanser	Silver Tezabi 24 Ct,
		Brylcreem 210 Ml.	Powder Vim 1000 Gm	Gold Tezabi 24 Ct
Medicare	Dettol (Medium)	Flagyl Tab. 200 Mg.	Cotton Bandage 2" - 4", O.R.S. (Nimcol)	Doctor (MBBS) Clinic
	Jouhar Joshanda	Septan Tablets, Panadol		Fee, Gripe-Water
	CAC. 1000 Tab	Tab. Extra/Plain	Brufen Tabs 200-Mg.	Woodwards,
				Galxos-D

Table A5: City-wise Inflation (YoY) by Income Groups, August 2008

		Upto Rs:3000			Rs 3001-5000		
		General	Food	Non-Food	General	Food	Non-Food
1	Lahore	24.2	31.6	19.1	23.8	31.8	18.4
2	Faisalabad	24.5	29.8	20.9	25.6	30.5	22.2
3	Rawalpindi	22.9	28.8	18.9	23.2	30.6	18.2
4	Multan	24.1	33.5	17.8	24.1	33.4	17.9
5	Gujranwala	25.7	31.7	21.7	26.2	32.3	22.1
6	Islamabad	21.7	29.6	16.4	21.4	29.6	15.8
7	Sargodha	25.0	31.7	20.4	24.3	31.1	19.7
8	Sialkot	24.3	31.3	19.5	24.2	32.4	18.6
9	Bahawalpur	26.7	35.6	20.7	26.6	35.7	20.3
10	Karachi	27.5	33.2	23.6	27.4	34.1	22.8
11	Hyderabad	26.6	34.8	21.0	25.8	33.7	20.4
12	Sukkur	27.6	38.7	20.1	29.8	42.4	21.4
13	Larkana	28.9	38.2	22.6	28.5	36.8	22.8
14	Peshawar	26.1	32.5	21.7	29.6	38.4	23.7
15	Bannu	32.3	42.7	25.3	30.9	42.6	22.9
16	Quetta	34.9	50.1	24.7	29.5	43.9	19.7
17	Khuzdar	39.2	52.7	30.0	36.6	48.8	28.4
		Rs 5001-12000			above Rs 12000		
		General	Food	Non-Food	General	Food	Non-Food
1	Lahore	22.6	30.7	17.2	20.8	26.8	16.8
2	Faisalabad	24.5	29.6	21.0	21.8	25.9	19.0
3	Rawalpindi	22.4	29.1	17.9	22.2	26.9	19.0
4	Multan	23.5	32.0	17.8	20.9	27.1	16.7
5	Gujranwala	24.5	29.8	21.0	21.4	25.1	18.9
6	Islamabad	21.6	29.3	16.5	21.3	25.4	18.5
7	Sargodha	24.1	29.8	20.3	24.0	28.6	20.9
8	Sialkot	24.2	31.9	19.0	23.3	30.1	18.7
9	Bahawalpur	24.5	33.8	18.2	22.1	29.5	17.1
10	Karachi	26.5	32.8	22.2	22.9	30.4	17.9
11	Hyderabad	26.2	34.3	20.7	24.6	31.0	20.3
12	Sukkur	28.6	40.1	20.9	27.7	38.1	20.7
13	Larkana	27.6	35.8	22.0	28.7	37.8	22.5
14	Peshawar	27.7	37.3	21.2	26.0	33.5	20.9
15	Bannu	29.9	43.1	21.0	29.1	41.2	21.0
16	Quetta	28.9	43.3	19.1	28.2	40.6	19.8
17	Khuzdar	31.4	45.5	21.8	27.4	38.5	19.9

Table A6 : Income Group-wise Inflation (YoY)								percent
	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Jul-08	Aug-08
<u>Up to Rs. 3000</u>								
General	14.7	13.4	17.0	20.2	23.2	25.3	27.2	28.5
Food	20.0	17.2	22.5	27.4	31.5	34.7	36.4	37.3
Non-food	10.9	10.7	13.0	15.1	17.1	18.6	20.6	22.0
<u>Rs. 3001-5000</u>								
General	14.5	13.0	16.6	19.9	22.6	24.8	26.9	28.0
Food	20.3	17.2	22.6	27.6	31.4	34.8	36.6	37.2
Non-food	10.5	10.0	12.4	14.5	16.3	17.8	19.8	21.3
<u>Rs. 5000-12000</u>								
General	13.0	12.0	14.9	18.1	20.4	22.6	25.3	26.4
Food	19.0	16.5	21.3	26.3	29.5	33.0	34.8	35.2
Non-food	8.6	8.7	10.2	12.2	13.7	14.9	18.2	19.8
<u>Above Rs. 12000</u>								
General	10.2	10.1	12.8	15.7	17.4	19.8	22.8	23.7
Food	16.6	15.0	18.8	23.6	26.1	29.8	31.4	31.4
Non-food	5.5	6.6	8.2	9.7	10.8	12.4	16.5	17.8
<u>All income groups</u>								
General	11.9	11.3	14.1	17.2	19.3	21.5	24.3	25.3
Food	18.2	16.0	20.6	25.5	28.5	32.0	33.8	34.1
Non-food	7.3	7.8	9.4	11.2	12.5	13.8	17.3	18.7

Table A7: Distribution of Price Change (YoY) - WPI Items: August 2008

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

S.No	Items	Unit	Price Aug-08	Percentage change	
				YoY	Monthly
1	Wheat	Kg.	21.7	31.2	2.3
2	Wheat flour average quality.	Kg.	24.0	47.9	0.3
3	Rice basmati broken	Kg.	53.9	-3.5	-0.3
4	Rice irri-6	Kg.	47.6	6.6	-1.0
5	Masur pulse washed	Kg.	122.1	4.3	4.0
6	Moong pulse washed	Kg.	55.6	-18.1	0.3
7	Mash pulse washed	Kg.	74.8	21.8	1.8
8	Gram pulse washed	Kg.	63.4	61.5	3.7
9	Beef	Kg.	135.2	60.2	1.5
10	Mutton	Kg.	251.2	38.9	1.0
11	Egg Hen (farm)	Doz.	58.7	71.4	4.0
12	Bread plain	Each	22.5	18.4	1.7
13	Sugar	Kg.	32.0	0.0	1.7
14	Gur	Kg.	34.5	26.8	4.3
15	Milk fresh	Litr	35.2	83.8	1.7
16	Milk powdered Nido	400g	160.6	4.6	0.4
17	Curd	Kg.	42.0	17.0	3.0
18	Veg.ghee tin	2.5k	394.9	26.8	0.0
19	Veg.ghee loose	Kg.	132.5	10.2	-1.9
20	Mustard oil	Kg.	151.1	10.2	1.7
21	Cooking oil	2.5L	398.0	10.6	0.0
22	Potatoes	Kg.	25.5	55.6	8.3
23	Onions	Kg.	24.3	11.8	39.1
24	Tomatoes	Kg.	35.6	8.2	37.5
25	Bananas	Doz.	42.1	19.4	-9.9
26	Salt powdered	Kg.	5.7	21.5	1.4
27	Red chillies (powder)	Kg.	178.9	4.4	-3.8
28	Garlic	Kg.	42.5	34.5	15.8
29	Tea packet	250g	90.3	40.6	8.8
30	Tea (prepared)	Cup	8.0	17.7	3.1

continued

Table A8 (continued)

Table A8: SPI Item-wise Price Movements

S.No	Items	Unit	Price Aug-08	Percentage change	
				YoY	Monthly
31	Cooked beef plate	Each	38.4	30.3	4.2
32	Cooked dal plate	Each	24.7	71.3	3.0
33	Cigarettes K-2	10's	8.8	36.5	1.6
34	Coarse latha	Mtr.	43.7	8.2	1.4
35	Lawn (avg.+s.qlty)	Mtr.	90.4	20.9	-0.6
36	Voil printed	Mtr.	45.4	30.3	0.7
37	Shirting	Mtr.	75.5	23.5	1.3
38	Sandel gents bata	Pair	499.0	60.7	0.0
39	Sandel ladies bata	Pair	379.0	22.1	26.8
40	Chappal spng. Bata	Pair	129.0	20.7	18.3
41	Kerosene	Litr	71.8	49.5	8.8
42	Firewood	40kg	249.8	0.0	2.1
43	Elec. Bulb 60-wats	Each	13.4	38.0	1.2
44	Match box	Each	1.0	22.0	0.0
45	Washing soap	Cake	12.3	48.6	4.2
46	Bath soap lifebuoy	Cake	20.2	47.5	0.9
47	Chicken (farm)	Kg.	104.0	11.6	11.1
48	Gas chrg. All clb. Comb	D.mmbt	273.7	124.4	5.3
49	LPG.(cylinder 11kg.)	Each	900.8	63.6	16.9
50	Elec.chrg.all slabs com	Bd. Unit	5.5	51.6	0.0
51	Petrol	Litr	87.0	110.0	8.2
52	Diesel	Litr	64.9	71.2	9.7
53	Telephone local	Call	2.3	41.7	0.0
Maximum				124.4	39.1
Median				26.8	1.7
Minimum				-18.1	-9.9

Table A9: Consumer Price Index Numbers by Major Groups and Selected Commodities			
Item and Specification	Weights	Index	
		Aug-07	Aug-08
GENERAL	100.0010	148.64	186.29
FOOD & BEVERAGES.	40.3416	158.26	212.21
1 WHEAT	0.4830	145.42	256.02
2 WHEAT FLOUR	5.1122	148.63	250.94
3 MAIDA	0.1059	141.74	238.72
4 BESAN	0.1320	146.52	220.30
5 RICE	1.3369	191.60	354.45
6 PULSE MASOOR	0.2214	146.66	336.99
7 PULSE MOONG	0.2230	177.44	184.93
8 PULSE MASH	0.2017	156.72	162.67
9 PULSE GRAM	0.4272	140.15	214.70
10 GRAM WHOLE	0.1491	135.35	170.09
11 MUSTARD OIL	0.0456	165.35	273.46
12 COOKING OIL	0.6858	169.10	250.00
13 VEGETABLE GHEE	2.6672	183.28	277.14
14 SUGAR	1.9467	109.31	115.56
15 GUR	0.0735	135.51	130.07
16 TEA	1.2559	108.84	148.51
17 MILK FRESH	6.6615	165.68	205.00
18 MILK POWDER	0.1105	166.06	193.39
19 MILK PRODUCTS	0.5607	152.04	188.10
20 HONEY	0.0358	130.45	146.37
21 CEREALS	0.0878	138.50	201.03
22 JAM,TOMATO,PICKLES & VINEGAR	0.2472	133.21	150.69
23 BEVERAGES	0.7286	137.77	167.68
24 CONDIMENTS	0.3392	119.40	214.89
25 SPICES	0.6008	128.08	203.96
26 DRY FRUIT	0.2760	220.36	265.43
27 BAKERY & CONFECTIONARY	2.9837	120.76	137.17
28 CIGARETTES	0.9527	157.93	170.77
29 BETEL LEAVES & NUTS	0.1851	146.46	163.48
30 READYMADE FOOD	1.6833	160.71	204.52
31 SWEETMEAT & NIMCO	0.3846	161.18	210.11
32 FISH	0.2703	148.83	155.90
33 MEAT	2.6981	220.19	245.67
34 CHICKEN FARM	0.9158	167.90	199.05
35 EGGS	0.4119	154.65	217.82
36 POTATOES	0.5542	182.24	261.04
37 ONIONS	0.5973	161.01	234.55
38 TOMATOES	0.4569	179.70	213.70
39 VEGETABLES	1.9165	160.98	190.70
40 FRESH FRUITS	1.6160	161.92	196.10
APPAREL, TEXTILE & FOOTWEAR.	6.0977	129.48	148.78
41 COTTON CLOTH	1.6197	132.99	153.02
42 SILK,LINEN,WOOLEN/CLOTH	0.5766	128.93	146.41
43 TAILORING CHARGES	0.8636	131.83	148.96
44 HOSIERY	0.1528	138.48	156.28
45 READYMADE GARMENTS	1.2038	123.78	134.76
46 WOOLEN READYMADE GARMENTS	0.1485	137.91	159.73
47 FOOTWEAR	1.5327	127.42	154.27
HOUSE RENT.	23.4298	148.03	169.02
48 HOUSE RENT INDEX (Combined)	23.4298	148.03	169.02

(continued)

(continued)

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

Item and Specification	Weights	Index	
		Aug-07	Aug-08
FUEL AND LIGHTING.	7.2912	151.72	183.62
49 KEROSENE	0.1366	235.87	434.77
50 FIREWOOD	0.4778	219.13	273.63
51 MATCH BOX	0.1301	100.00	200.00
52 BULB & TUBE	0.1311	86.73	97.10
53 ELECTRICITY	4.3698	119.53	127.23
54 NATURAL GAS	2.0458	206.56	270.77
H.HOLD.FURNITURE & EQUIPMENT ETC.	3.2862	137.05	153.45
55 UTENSILS	0.3690	122.76	138.56
56 PLASTIC PRODUCTS	0.1055	142.37	173.65
57 SUITCASE	0.0470	126.38	140.85
58 HOUSE HOLD EQUIPMENTS	0.0953	122.67	141.66
59 FURNITURE (Ready Made)	0.3054	137.36	164.21
60 FURNISHING	0.6362	131.85	146.56
61 ELECT.IRON FANS & WASHING MACHINE	0.1889	125.46	148.49
62 SEWING MACHINE,CLOCK AND NEEDLES	0.1270	118.74	130.63
63 REFRIGERATOR & AIRCONDITIONER	0.1756	100.51	116.80
64 MARRIAGE HALL	0.0445	148.99	175.28
65 HOUSE HOLD SERVANT	1.1918	153.99	166.43
TRANSPORT & COMMUNICATION.	7.3222	146.58	205.95
66 PETROL	1.7253	175.59	283.74
67 DIESEL	0.2070	238.74	408.36
68 CNG. FILLING CHARGES	0.1649	142.87	200.49
69 SERVICE CHARGES	0.3835	133.30	155.88
70 VEHICLES	0.2596	100.77	114.33
71 TYRE & TUBE	0.2831	124.94	137.58
72 TRANSPORT FARE/CHARGES	2.1236	172.82	250.13
73 TRAIN FARE	0.1514	170.01	253.24
74 AIR FARE	0.0983	253.00	342.93
75 COMMUNICATION	1.9255	86.76	87.89
RECREATION & ENTERTAINMENT.	0.8259	105.85	118.27
76 RECREATION	0.3399	100.97	128.36
77 ENTERTAINMENT	0.4860	109.26	111.21
EDUCATION.	3.4548	138.17	159.46
78 TUTION FEES	2.3629	144.77	162.19
79 STATIONERY	0.3500	127.06	154.86
80 TEXT BOOKS	0.6894	125.47	158.36
81 COMPUTER & ALLIED PRODUCTS	0.0525	82.10	82.29
CLEANING LAUNDRY & PER.APPEARANCE.	5.8788	129.08	154.34
82 WASHING SOAP & DETERGENT	1.5535	120.73	145.32
83 TOILET SOAP	0.7436	127.15	174.00
84 TOOTH PASTE	0.4036	107.71	111.77
85 SHAVING ARTICLES	0.3480	115.63	134.86
86 COSMETICS	1.4272	125.93	136.33
87 WATCHES	0.0552	121.56	130.25
88 JEWELLERY	0.3936	200.79	292.68
89 LAUNDRY CHARGES	0.2207	146.08	170.10
90 HAIR CUT & BEAUTY PARLOUR CHARGES	0.7334	129.94	144.03
MEDICARE.	2.0728	129.26	142.06
91 DRUGS & MEDICARES	1.0752	106.83	112.77
92 DOCTOR'S FEE	0.9976	153.45	173.63

Figure A1: CPI Non-food Inflation

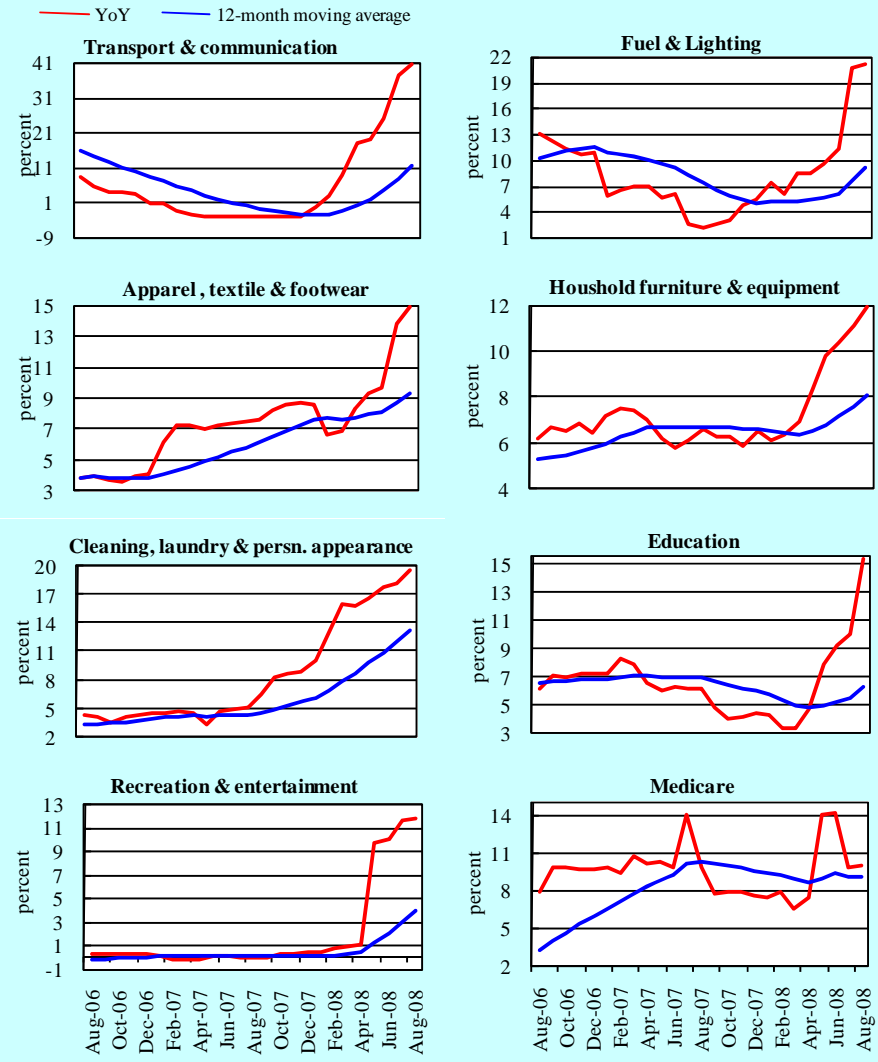


Figure A2: Frequency Distribution of Price Changes of CPI Items, August 2008

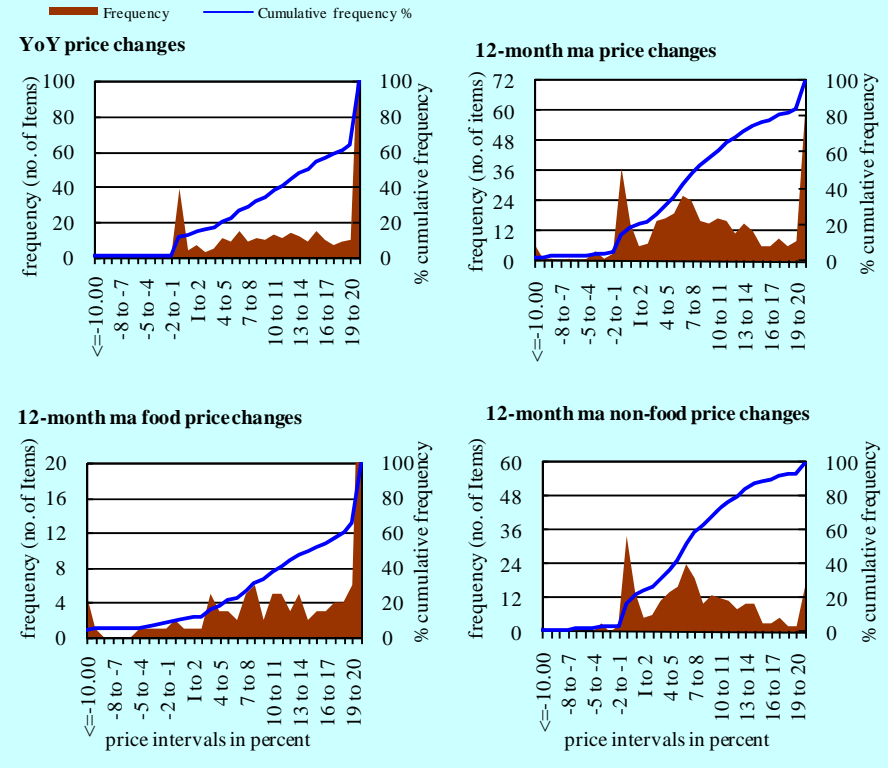
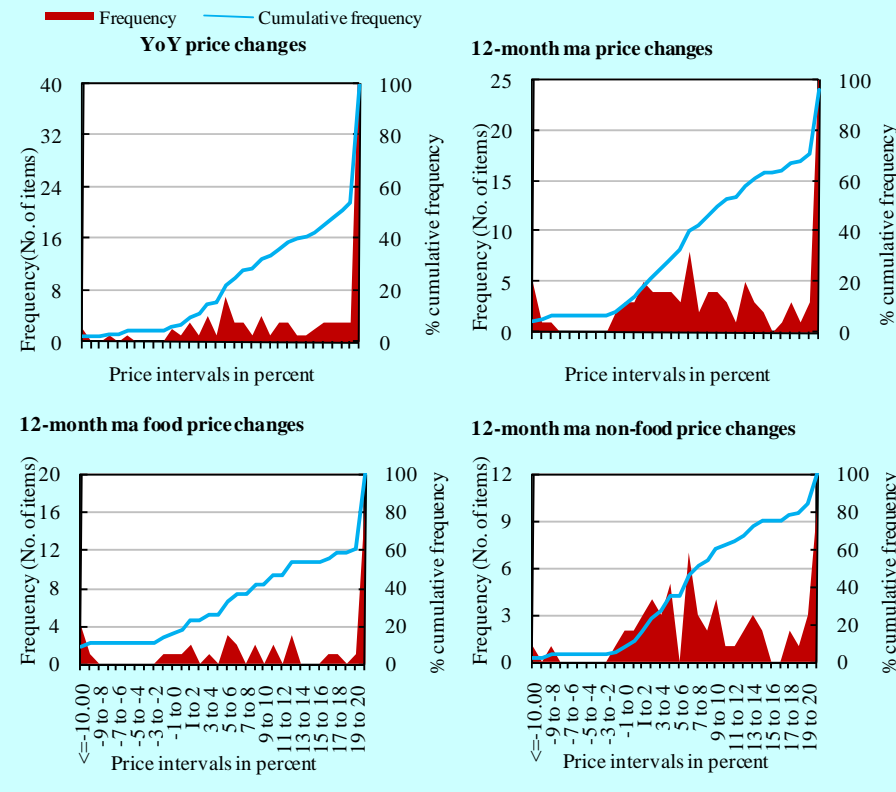


Figure A3: Frequency Distribution of Price Changes of WPI Items, August 2008



Annexure B**Technical Notes**

1. All the three measures of inflation, viz. CPI, WPI and SPI are computed by the following Laspeyres Index formula:

$$I_t = \sum_j w_0^j \left(\frac{P_t^j}{P_0^j} \right)$$

where I_t is price index, w_0^j is weight of commodity j in the overall basket, P_t^j is price of commodity j in period t and P_0^j is its price in the base year.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Where C_{it} : Contribution of i^{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