

Inflation Monitor

December 2008



State Bank of Pakistan

Economic Analysis Department

ISSN 1992-8327 (print)

ISSN 1992-8335 (online)

The analysis in this document is based on data provided by
Federal Bureau of Statistics, Pakistan.

http://www.sbp.org.pk/publications/Inflation_Monitor

© 2008 State Bank of Pakistan

Contents

1.	Overview	1
2.	Consumer Price Index	4
	2.1 Food Inflation	5
	2.2 Non-food Inflation	6
	2.3 City-wise Inflation	9
	2.4 Income Group-wise Inflation	11
	2.5 Services and Non-services Inflation	11
3.	Wholesale Price Index	13
4.	Global Commodity Prices	17
5.	Sensitive Price Indicator	21

Annexure A:	23
--------------------	-----------

Table A1: CPI Inflation (YoY) by Groups	
Table A2: Distribution of Price Changes of CPI Basket, December 2008 (YoY)	
Table A3: Top Ten Contributors to YoY CPI Inflation in December 2008	
Table A4: Distribution of YoY Price Changes - Selected CPI Items, December 2008	
Table A5: City-wise CPI Inflation (YoY) by Income Groups December 2008	
Table A6: Income Group-wise CPI Inflation (YoY)	
Table A7: Distribution of Wholesale Price Changes (YoY), December 2008	
Table A8: SPI Item-wise Price Movements for the month of December 2008	
Table A9: Consumer Price Index Numbers by Major Groups and Selected Commodities for December 2008	

Figure A1: CPI Non-food Inflation

Figure A2: Frequency Distribution of Price Changes of CPI Items December 2008

Figure A3: Frequency Distribution of Price Changes of WPI Items December 2008

Annexure B: Technical Notes	36
------------------------------------	-----------

Team

Dr. Mian Farooq Haq	mian.farooq@sbp.org.pk
Mr. Saghir Pervaiz Ghauri	saghir.pervaiz@sbp.org.pk
Mr. Muhammad Akmal	muhammad.akmal@sbp.org.pk
Mr. Muhammad Usman Abbasi	muhammad.usman3@sbp.org.pk

Editorial Assistance

Mr. Umar Siddique	umar.siddique@sbp.org.pk
-------------------	--

Overview

Despite some ease in December 2008 relative to November 2008, headline consumer price index (CPI) inflation remained high at 23.3 percent on year-on-year (YoY) basis compared with only 8.8 percent in December 2007. Similar trends are visible in both food and non-food groups, however, moderation in food group is more pronounced.

Table 1.1: Inflation (YoY)							percent
	CPI			Core Inflation		WPI	SPI**
	General	Food	Non-food	NFNE *	Trimmed		
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
Sep-08	23.9	29.9	19.2	17.3	21.2	33.2	29.6
Oct-08	25.0	31.7	19.7	18.3	21.7	28.4	30.3
Nov-08	24.7	30.4	20.2	18.9	21.3	19.9	28.8
Dec-08	23.3	27.9	19.8	18.8	21.7	17.6	25.7

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

CPI declined by 0.5 percent on month-over-month (MoM) basis during December 2008 as against a rise of 0.6 percent in the same month last year. This is the second consecutive decline in monthly inflation, first time since March 2004. Decline in the prices of food group was recorded at 1.6 percent (MoM) during December 2008 as against a rise of 0.4 percent in the corresponding month last year. Non-food inflation (MoM) decelerated to 0.4 percent in December 2008 compared with 0.7 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) recorded high inflation during December 2008, in comparison the figure for the same month last year. NFNE inflation (YoY) showed slight decline whereas 20 percent trimmed mean registered increase compared to the previous month. Core inflation (YoY) based on NFNE was recorded at 18.8 percent and core inflation measured by 20 percent trimmed mean reached 21.7 percent as against 7.2 percent and 8.7 percent in the corresponding month last year. It indicates; (1) that inflationary pressures are broad based, and that (2) there remain persistence in inflationary pressures

Table 1.2: Different Dimensions of Inflation (percent)

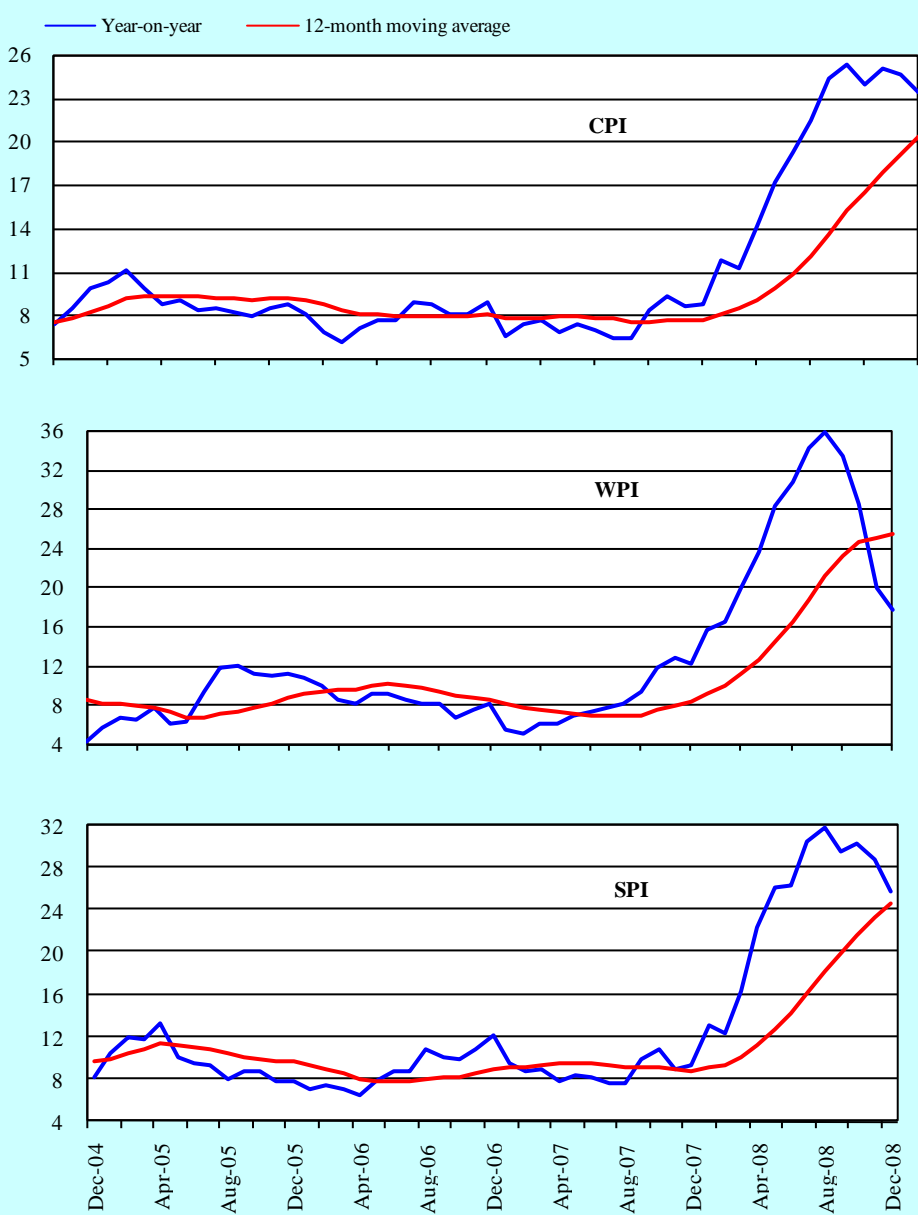
	Dec-06	Dec-07	Dec-08	5-year average#
Year-on-year (December over December)				
Overall CPI	8.9	8.8	23.3	7.8
Food group	12.7	12.2	27.9	10.0
Non-food group	6.2	6.3	19.8	6.3
Core Inflation				
NFNE*	5.7	7.2	18.8	6.3
Trimmed	6.3	8.7	21.7	6.8
Period average (July over December)				
Overall CPI	8.4	8.0	24.4	7.3
Food group	10.6	11.6	31.3	9.1
Non-food group	6.8	5.4	19.2	6.1
Core Inflation				
NFNE*	6.2	6.5	17.4	6.1
Trimmed	6.7	7.6	21.0	6.6
12-month moving average				
Overall CPI	7.9	7.6	20.3	7.0
Food group	8.5	10.8	27.6	8.5
Non-food group	7.5	5.3	14.8	5.9
Core Inflation				
NFNE*	6.6	6.1	13.9	5.8
Trimmed	6.8	7.4	16.9	6.4
Monthly (November over December)				
Overall CPI	0.5	0.6	-0.5	0.2
Food group	0.6	0.4	-1.6	-0.4
Non-food group	0.4	0.7	0.4	0.6
Core Inflation				
NFNE*	0.4	0.7	0.6	0.5
Trimmed	0.4	0.7	0.3	0.5

* NFNE is Non-food non-energy inflation

5-year average excluding FY09

While on a downtrend since September 2008, Wholesale Price Index (WPI) inflation in December 2008 is yet significantly higher than the level recorded for the same period last year. Both food and non-food groups of WPI contributed to the decline in overall WPI inflation. Sensitive price indicator (SPI) also decelerated for the second consecutive month but remained strong at 25.7 percent (YoY) in December 2008 (see **Figure 1.1**).

Figure 1.1: Movements in Price Indices (percent change)



2. Consumer Price Index

Despite some deceleration in CPI inflation during December 2008 relative to the preceding month, it remained strong at 23.4 percent (YoY), significantly higher than the 8.8 percent recorded in December 2007. Similar trends witnessed in both food and non-food groups inflation during the month under review. CPI food inflation was recorded at

27.9 percent during December 2008 compared to 12.2 percent during December 2007. Non-food inflation (YoY) reached 19.8 percent during December 2008 compared to 6.3 percent during the corresponding month last year (see **Figure 2.1**).

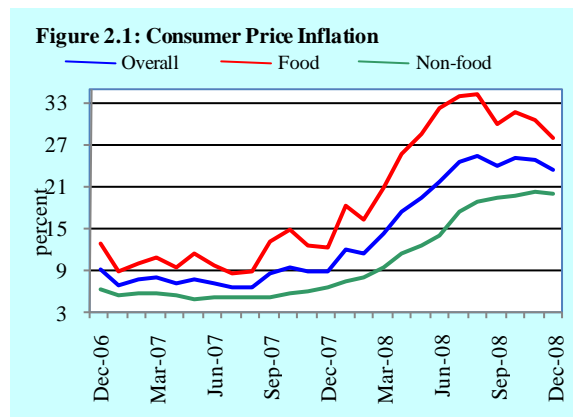
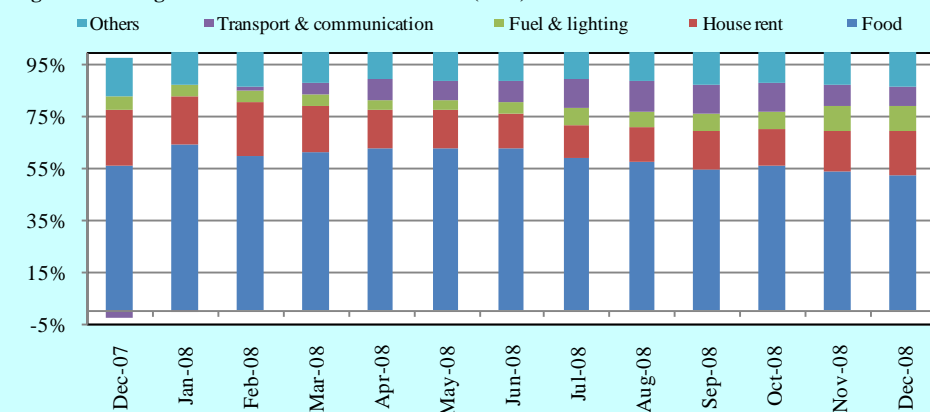


Figure 2.2: Weighted Contribution to CPI Inflation (YoY)

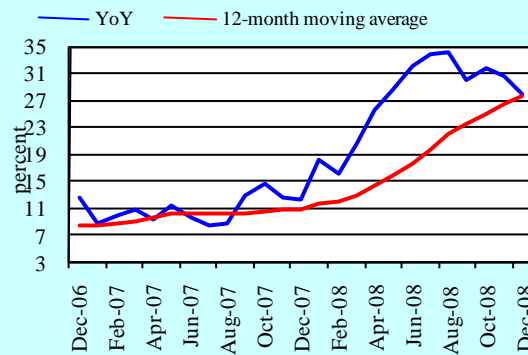


Weighted contribution of food group to overall CPI inflation dropped to 52.3 percent during the month under review compared to 58.9 percent in December 2007. Contrary to food group's contribution, the weighted contribution of non-food group increased to 47.7 percent compared to 41.1 percent in the same month last year. Weighted contribution of *fuel & lighting* and *transport & communication* sub-groups were recorded higher at 9.3 percent and 7.7 percent in December 2008 as compared to 4.8 percent and (-) 2.7 during December 2007 (see **Figure 2.2**).

2.1 Food Inflation

Food inflation (YoY) remained high during December 2008 compared to the same month last year observing slight decrease compared to November 2008. Food inflation (YoY) was recorded at 27.9 percent during the month under review compared to 12.2 percent in December 2007 and 30.4 percent during November 2008 (see **Figure 2.3**). Key items contributing to this high food inflation (YoY) during December 2008 were wheat, rice, milk, pulse masoor, potatoes, condiments, etc.

Figure 2.3: CPI Food Inflation



A closer look at price movements of individual food items group reveals that out of 110 commodities reported during December 2008, three commodities -coriander seed powder (125.6 percent), pulse masoor (114.6 percent) and coffee (108.9 percent) showed price increase¹ of over 100 percent, 10 showed a price change between 50 to 100 percent, 80 items depicted a price change between 10 to 50 percent, 12 showed single digit price increase, 4 items exhibited a decline in their prices and one item showed no price change (see **Figure 2.4** and **Table A2** in **Annexure A**).

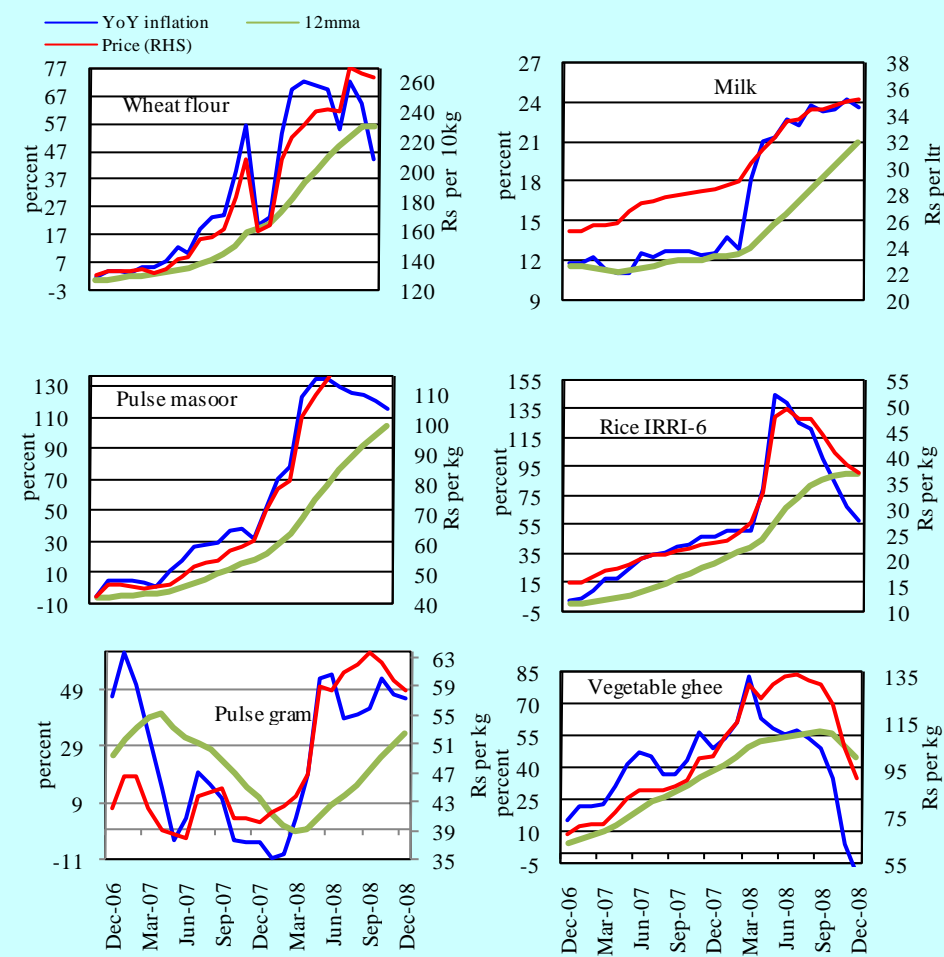
As for the percent contribution to overall inflation (YoY), like the previous month, wheat flour and fresh milk were the second and third highest contributors to overall CPI inflation², with 12.1 percent and 7.4 percent share in overall CPI inflation (see **Table A3** in the Annexure). Moreover, within food group, three items i.e. wheat flour, milk fresh, and rice contributed 43.8 percent to food inflation (YoY) during December 2008.

Food inflation (MoM) showed a decline of 0.5 percent during the month under review. Detailed analysis of items in CPI food group on monthly price change showed that 5 items including guava, coffee, pomegranate, egg and onion, exhibited double digit price change during December 2008 (nine items during November 2008) whereas prices of 38 items including cauliflower, peas, carrot, turnip, brinjal, spinach, vegetable ghee, etc. declined during December 2008.

¹ Price change are compared with December 2007

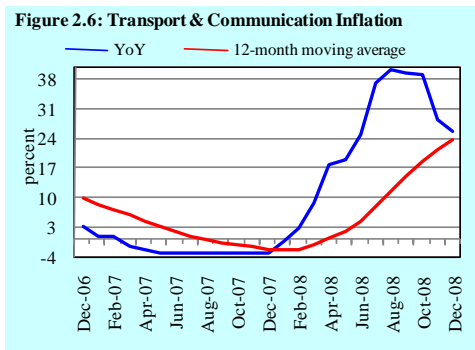
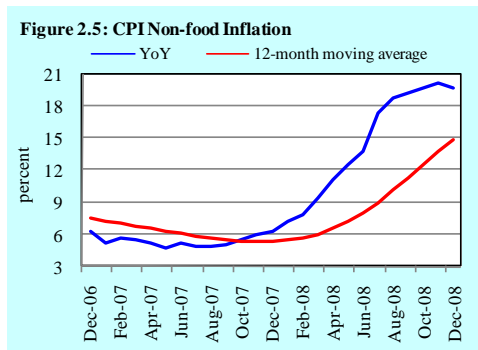
² house rent index of non-food group being the first

Figure 2.4: Price Trends in Key Food Items



2.2 Non-food Inflation

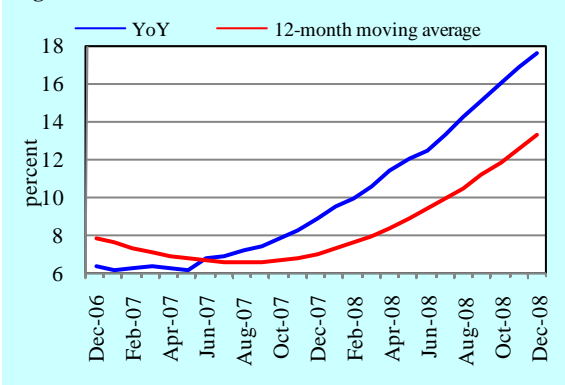
Similar to headline and food group, CPI non-food inflation (YoY) showed a slight decline in December 2008 compared to the preceding month. At the same time it is substantially higher compared to the corresponding month last year. CPI non-food inflation (YoY) stood at 19.8 percent during the month under review compared to 6.3 percent in December 2007 (see **Figure 2.5**). All sub-groups of CPI non-food group contributed to this strong inflation but the contributions from *transport & communication* and *fuel and lighting* sub-groups were more pronounced.



Inflation (YoY) in *transport & communication* sub-group decreased in December 2008 compared to the last month, yet remained higher compared to the same month last year. Inflation (YoY) was recorded at 27.5 percent during the month under review compared to (-) 3.0 percent in December 2007 and 28.6 percent in November 2008 (see **Figure 2.6**).

Inflation (YoY) in *house rent index* maintained its rising trend and was recorded at 17.6 percent during December 2008 compared to 8.8 percent during the same month last year and 16.8 percent in November 2008 (see **Figure 2.7**).

Figure 2.7: House Rent Inflation



Inflation (YoY) in *apparel, textile & footwear* sub-group decreased during December 2008 compared to November 2008, but the level is still higher compared to the corresponding month last year. Inflation (YoY) in this sub-group was marked at 15.7 percent in December 2008 compared to 8.7 percent during December 2007 and 16.9 in the previous month. Disaggregated analysis of this sub-group revealed that out of total 42 items, 29 items showed 10 to 63 percent change in their prices, while 11 items recorded a change of up to 10 percent with only one item showing no price change and one item showed a decline in prices.

Following the trend of overall CPI and food inflation (YoY), inflation in *fuel & lighting* sub-group decreased during December 2008 compared to the preceding month, while staying higher compared to the same month last year. Inflation (YoY) in this sub-group was recorded at 29.5 percent in December 2008 compared to 5.5 percent in the same month last year and 31.9 percent in November 2008.

Item-wise analysis of this sub-group revealed that out of 15 items, 9 recorded price change between 20 to 100 percent, 4 items saw price change between 4 to 8 percent, one item showed no price change and one item (gas cylinder) showed a decline in price during the month under review.

Household furniture & equipment sub-group's inflation (YoY) showed slight decline compared to the previous month, dropping from 15.0 percent to 14.6 percent but this level is still high enough compared to the level of 6.6 percent in the corresponding month last year. Item-wise price change of this sub-group revealed that out of 44 items, 38 exhibited price change between 10 to 38 percent (whereas only 4 items showed price change in double digit during December 2007) and 6 items showed price change between 4 to 10 percent during December 2008.

Inflation (YoY) in *recreation & entertainment* sub-group was recorded at 12.6 percent in December 2008 compared to 0.4 percent during the same month last year. Detailed analysis showed that out of 16 items in this sub-group, six items recorded a price change between 15 to 50 percent; 10 commodities recorded a change between 0 to 10 percent (with two items showing no price change) during the month under review.

Inflation (YoY) in *cleaning, laundry & personal appearance* sub-group decreased during December 2008 compared to the previous month, however higher compared to December 2007. Inflation (YoY) in this sub-group was recorded at 19.8 percent compared to 8.9 percent in December 2007 and 20.4 percent during November 2008. Item-wise analysis of this sub-group revealed that out of 36 items, 26 showed double digit price change between 10 to 40 percent and remaining 10 items recorded a price change between 0 to 10 percent (whereas only 6 items showed double digit price change during December 2007) during the month under review.

Inflation (YoY) in *education* sub-group increased during December 2008 compared with both the previous and the same month last year. Inflation (YoY) in this sub-group reached 17.0 percent in December 2008 compared with 16.3 percent during November 2008 and 4.4 percent during the corresponding month last year. Item-wise analysis of this sub-group showed that out of 24 items 17 showed price change between 10 to 77 percent (whereas only two items showed price change in double digits during December 2007), 6 items showed price change between 0 to 10 percent (two commodities showed no price change) and only one item showed a decline in price.

Inflation (YoY) in *medicare* sub-group also increased during December 2008 compared with both the previous month and the same month last year. Inflation (YoY) reached 12.7 percent in December 2008 compared to 7.6 percent in the corresponding month last year and 12.6 percent during November 2008 (see **Figure A1** in Annexure).

Out of 250 non-food items included in CPI basket, 170 showed double digit price change during December 2008 compared to only 27 items during December 2007. The commodities showing double digit price change include UMS charges, match box, rail and road fares, kerosene oil, high speed diesel, gold and silver tezabi, firewood whole, petrol super, etc. Further 32 items showed price change in the range of 5 to 10 percent, 18 showed price change between 0 to 5 percent, 23 recorded no change in their prices (49 commodities showed no price change during the same month last year) and only six items showed a decline in prices (21 commodities showed decline in prices during December 2007) (see **Table A2 & A4** in the Annexure).

2.3 City-wise Inflation

City-wise inflation data revealed that a slight ease in inflation during December 2008 relative to November 2008 is shared by all major urban centers of the country, with the exception of Sargodha and Bannu. However, inflationary pressures are relatively stronger in federal and provincial capitals, as inflation (YoY) in Islamabad, Lahore, Karachi, Quetta and Peshawar, reached 20.9, 21.8, 23.7, 26.5 and 26.8 percent compared to 7.7, 7.5, 8.1, 9.0 and 9.2 percent during the same month last year. Inflation (YoY) level in Karachi, Quetta and Peshawar was higher than the overall CPI inflation during the month (see **Table 2.1**).

The inflation data of 35 cities exhibited that 16 cities were found in the category of high inflation cities, while remaining 19 cities were categorized in low inflation cities during December 2008. **Table 2.2** exhibits that the highest level of YoY inflation was recorded in Mardan (28.4 percent) followed by Nawabshah (27.6 percent). The lowest inflation (YoY) was recorded in Bahawalpur (18.4 percent). The highest food inflation (YoY) was recorded in Quetta (36.5 percent) and the lowest in Bahawalpur (19.6 percent), whereas the highest non-food inflation was also observed in Mardan (24.8 percent) and the lowest in Bahawalnagar (16.1 percent) during December 2008 (see **Table 2.2**).

Table 2.1: City-wise Inflation of Selected Cities						percent
	Overall CPI	Islamabad	Lahore	Karachi	Quetta	Peshawar
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
Sep-08	23.9	21.5	21.0	25.2	27.4	26.2
Oct-08	25.0	21.7	22.5	24.2	28.7	30.1
Nov-08	24.7	21.0	22.5	24.2	26.9	27.8
Dec-08	23.3	20.9	21.8	23.7	26.5	26.8

Table 2.2: City-wise Inflation in CPI (YoY) December 2008							
	High inflation cities				Low inflation cities		
	General	Food	Non-food		General	Food	Non-food
Mardan	28.4	33.1	24.8	Okara	23.1	23.6	22.7
Nawabshah	27.6	33.1	23.6	Jhelum	23.0	28.2	19.1
Shahdarpur	27.5	32.6	23.7	Hyderabad	22.9	27.4	19.4
Loralai	27.5	35.7	21.6	Jhang	22.9	23.5	22.4
Khuzdar	27.2	33.7	22.3	Rawalpindi	22.7	27.1	19.5
Sukkur	27.0	33.6	22.1	Attock	22.5	26.8	19.3
Peshawar	26.8	32.7	22.2	Mianwali	22.5	26.0	19.9
Quetta	26.5	36.5	18.8	D.I.Khan	22.3	29.8	16.6
Sargodha	26.1	31.6	21.9	D.G. Khan	22.2	20.7	23.4
Abbotabad	26.0	30.2	22.5	Vehari	22.0	25.7	19.1
Mirpur Khas	25.2	26.8	23.9	Lahore	21.8	26.4	18.1
Turbat	24.4	29.6	20.7	Faisalabad	21.5	21.3	21.7
Sialkot	24.3	30.4	19.5	Gujranwala	21.5	22.7	20.5
Bannu	24.1	32.0	18.4	Samundari	21.4	21.8	21.1
Karachi	23.7	29.1	19.6	Larkana	21.3	22.0	20.7
Kunri	23.7	26.2	21.8	Islamabad	20.9	26.4	16.9
				Multan	19.4	21.4	17.8
				Bahawalnagar	19.3	23.7	16.1
				Bahawalpur	18.4	19.6	17.5

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

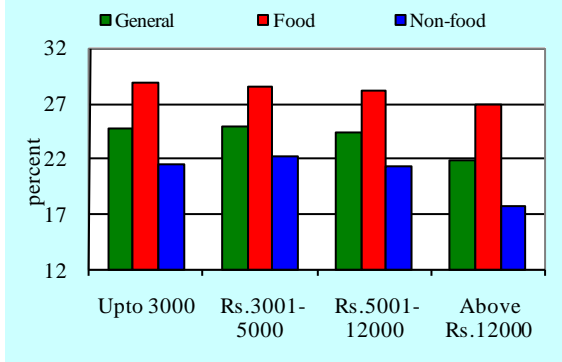
2.4 Income Group-wise Inflation

As in the last month, all income groups except the highest, experienced higher than the average inflation during December 2008 (see **Figure 2.8**).

The lowest income group having monthly income upto Rs. 3000 experienced the highest inflation of 25.0 percent with both food and non-food inflation higher than

the average, followed by income group between Rs. 3001 to 5000 at 24.8 percent and income group of Rs. 5001 to 12000 at 24.4 percent. The highest income group of above Rs. 12000 experienced lowest inflation of 21.8 percent (overall inflation during December 2008 being 23.3 percent).

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



City and income group wise data, collected from 17 cities, showed that Khuzdar recorded the highest inflation for all income groups and Bahawalpur experienced lowest inflation for all income groups during December 2008 (see **Table A5** in Annexure A).

2.5 Services and Non-services Inflation

Within the overall basket of consumer price index, the items related to services³ and non-services sectors showed decrease in inflation during December 2008, compared to the previous month, yet remaining higher compared to the same month last year. Inflation (YoY) in services sector was recorded at 20.1 percent compared to 6.8 percent in December 2007 and 21.3 percent during November 2008. Similarly, in the non-services sector inflation (YoY) dropped from 27.1 percent in November 2008 to 25.3 percent in December 2008, still higher compared to 10.2 percent in the corresponding month last year (see **Figure 2.9**).

³ 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.

Figure 2.9: Services & Non-services Inflation

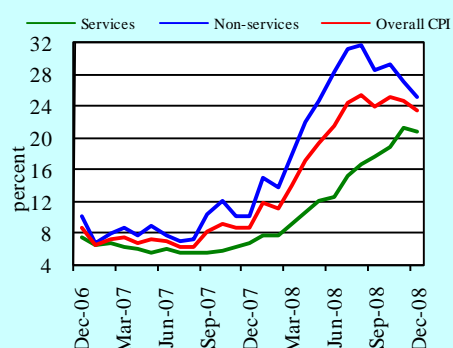
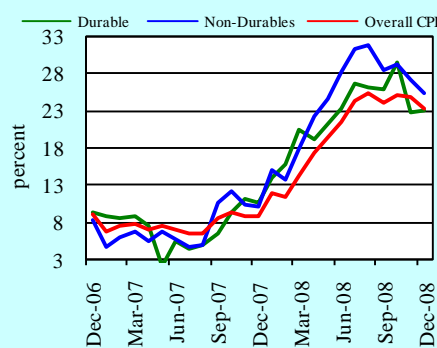


Figure 2.10: Durables and Non-durables Inflation



Within the non-services sector, YoY inflation in both durable⁴ and non-durable sub-groups remained high during the month under review compared to December 2007. Inflation (YoY) in durable goods was recorded at 23.0 percent compared to 10.7 percent in same month last year. This increase was contributed by the rising prices of all items included in this sub-group; however the item having the highest increase in the price, included in this sub-group, was jewelry (26.3 percent in December 2008 compared to 20.0 percent in December 2007). Inflation (YoY) in non-durable goods was recorded at 25.3 percent during December 2008 compared to 10.2 percent in the same month last year. The major contributing items to this significant increase were pulse masoor; match box, potatoes, condiments, kerosene oil, tea, maida, diesel, etc. (see **Figure 2.10**).

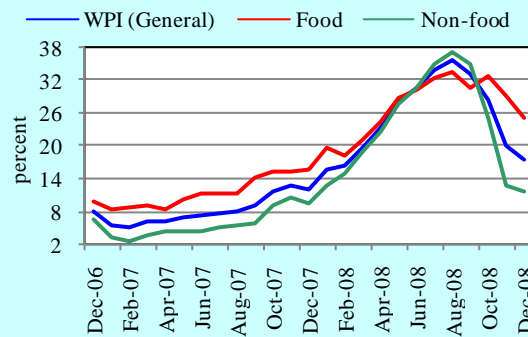
⁴ Durable items include suitcase, furniture, electric iron, fans, washing machines, sewing machines, clocks, needles, refrigerators, air conditioners, vehicles, computer & allied products, watches and jewelry, etc.

3. Wholesale Price Index

Inflation measured by the wholesale price index (WPI) continued to show a declining trend for the fourth consecutive month, as it reached 17.6 percent (YoY) during December 2008 compared to 19.9 percent in the previous month. This relatively lower inflation was contributed by both food and non-food groups of WPI. WPI non-food

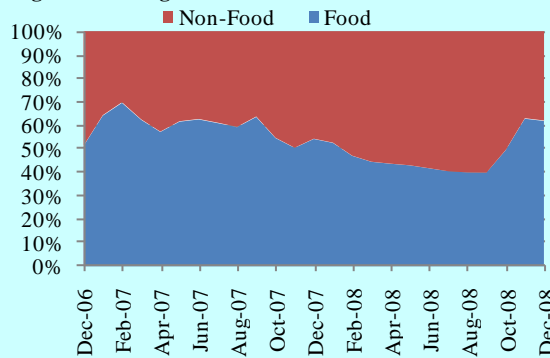
inflation (YoY) was recorded at 11.7 percent (YoY) during December 2008 compared to 12.8 percent in the previous month (see **Figure 3.1**). Similarly, the food group of WPI witnessed a relatively lower inflation during December 2008 as it reached 25.3 percent (YoY) compared to 29.2 percent during the previous month. Despite relative weakness compared to the previous month, the overall WPI inflation, in both food and non-food groups remained higher compared to the same month last year.

Figure 3.1: Wholesale Price Inflation (YoY)



In terms of weighted contribution to overall WPI inflation, the WPI non-food registered a slight increase and was recorded at 37.8 percent during December 2008 compared to 36.9 percent in the previous month. The weighted contribution of food group in overall WPI inflation decreased from 63.1 percent in November 2008 to 62.2 during the month under review (see **Figure 3.2**).

Figure 3.2: Weighted Contributions in WPI



An item-wise break up of WPI basket revealed that out of 106 items, 76 exhibited double digit price change ranging between 11 to 125 percent during the month under review. The major items displaying double digit price change were pulse masoor, condiments, fertilizers, potatoes, maida, spices, etc.

Among the remaining items sixteen exhibited growth between 5 to 10 percent in their wholesale prices whereas six items showed a subdued price increase of upto 5 percent. Prices of the remaining eight items either declined or showed no change during the month under review (see **Table 3.1**).

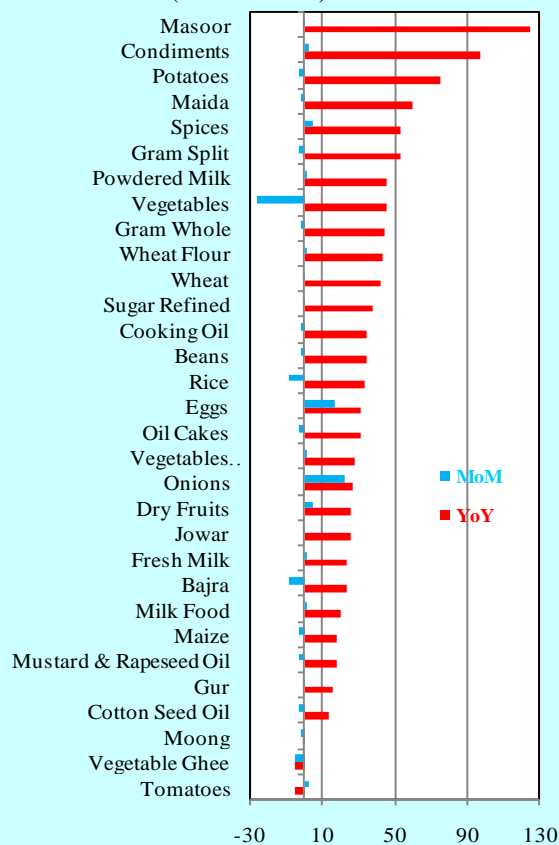
WPI food group recorded 25.3 percent (YoY) inflation during December 2008 compared to 15.8 percent in the same month last year. Major food items recording high YoY growth during December 2008 include pulse masoor, condiments, potatoes, maida, spices, wheat, besan, etc. Similar to previous month, prices of pulse masoor recorded the highest YoY growth amongst the food items during the month under review. On the other hand, three food items showed negative growth including tomatoes (-5.8 percent), vegetable ghee (-5.3 percent) and pulse moong (-1.6 percent) (see **Table A7** & **Figure 3.3**).

The non-food group of WPI declined during December 2008 and was recorded at 11.7 percent (YoY) compared to 12.8 percent in November 2008. All sub-groups of the non-food group, except *fuel, lighting & lubricant*, witnessed lower YoY inflation in

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

No. of Items					
Groups	Decrease or no change	Up to 5%	5%-10%	More than 10%	Total
A. Food	3	2	3	35	43
B. Non-Food	5	4	13	41	63
Raw material	1	1	1	6	9
Fuel, lighting & lubricant	1		1	9	11
Manufactures	2	2	11	17	32
Building material	1	1		9	11
Total	8	6	16	76	106

Figure 3.3: Wholesale Prices Inflation (%) in Selected Non-food Items (December 2008)



December 2008 compared to the previous month (see **Figure 3.4**).

Within the WPI non-food group, more than 65 percent of the items registered double digit YoY price growth during the month under review.

Specifically items like fertilizers, tubes, coke, diesel oil, tyres, kerosine oil etc., registered more than 45 percent price growth. In contrast, prices of five non-food items, including furnace oil, cotton yarn, tiles etc., either declined or showed no change during the month under review (see **Figure 3.5**).

Amongst the various sub-indices of non-food group, the *fuel, lightning & lubricants* sub-group recorded relatively higher (YoY) inflation of 10.2 percent during December 2008 compared to 5.0 percent during same month last year. Similar to previous month, price growth (YoY) of all items included in the sub-group, except motor spirit and furnace oil, remained in double digits with items like coke, diesel and kerosene oil recording more than 45 percent price growth during December 2008 (see **Table A7** in Annexure A).

Inflation (YoY) recorded by the *raw material* sub-group witnessed a slight ease during the month under review to

Figure 3.4: WPI Non-food Inflation - YoY

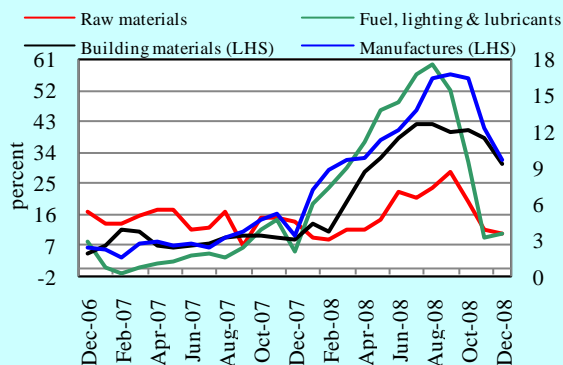
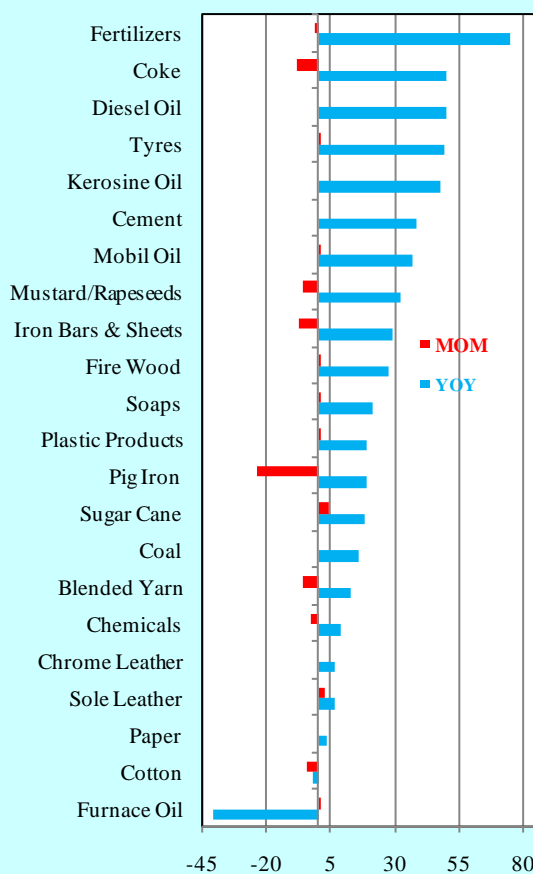


Figure 3.5: Wholesale Prices Inflation (%) in Selected Non-food Items (December 2008)



reach 10.2 percent during December 2008 compared to 13.5 percent in December 2007. Amongst the various items included in the sub-group, the wholesale prices of cotton declined while the prices of tobacco, mustard/rapeseed and cotton seeds recorded more than 20 percent YoY growth during the month under review.

The *manufactures* sub-group recorded single digit YoY growth for the first time since May 2008 as it reached 9.7 percent during December 2008 compared to 12.2 percent during the previous month. Within the sub-group, items including fertilizers, tubes and tyres recorded more than 45 percent price growth during the month under review. The *building material* sub-group, however, registered strong YoY growth and reached 30.6 percent during December 2008 compared to 8.7 percent during December 2007. Similar to previous month more than eighty percent of items included in the sub-group recorded double digit YoY price change with items such as cement blocks, glass sheets, wires & cables and cement registered more than 35 percent price change in December 2008 (see **Table A7** in Annexure A).

4. Global Commodity Prices

Commodity prices in international markets eased further during December 2008 compared to the preceding month as well as December 2007. IMF commodity price indices for non-fuel, food, metals and energy prices plunged during the month (see

Table 4.1). This downtrend is mainly attributed to continued global recession scaling down the demand. Almost all major commodities witnessed a decline during December 2008 over the preceding month. In particular items related to metals and energy showed a significant MoM decline (see **Figure 4.1**).

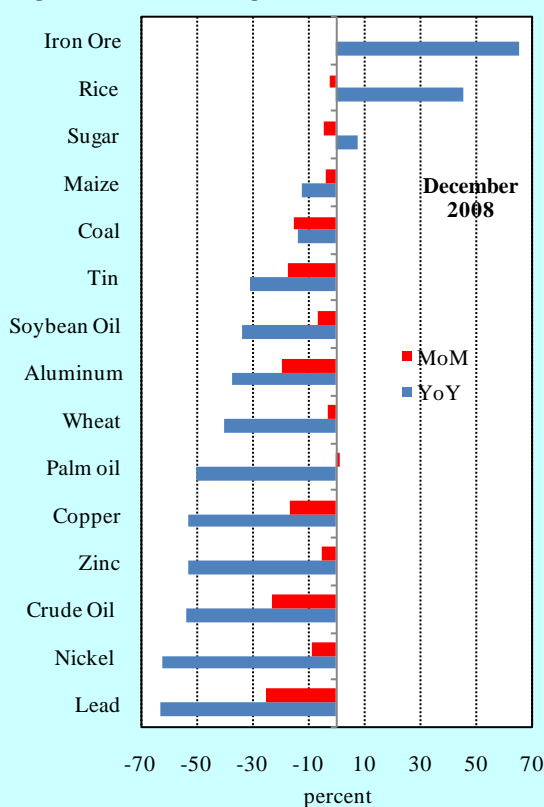
In energy group, average crude oil⁵ prices dropped to US\$ 41.5 per barrel during December 2008, showing a decline of 53.6 percent on YoY basis and 23.2 percent on MoM basis. According to commodity market review published by the World Bank, the drop in crude oil prices is mainly due to; (a) falling global demand for the oil as its demand fell by 6 percent in the US (the largest crude oil consumer); and (b) rising inventories in the world. The weakening of crude oil prices was also reflected in IMF energy index that declined by 18.3 percent compared to the previous month (see **Figure 4.2**).

Table 4.1: Commodity Price Indices (December 2008)

	YoY	MoM
All Commodities	-36.3	-13.7
Non-Fuel	-23.9	-5.7
Food	-16.2	-2.3
Metals	-36.4	-10.9
Energy	-42.6	-18.3

Source: IMF

Figure 4.1: Percent Change in Price

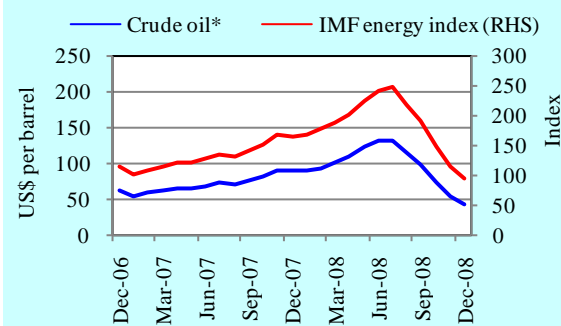


⁵ Simple monthly average of Brent, WTI and Dubai Fateh.

In case of edible oil, prices of soybean oil continued declining during December 2008 and fell by 6.5 percent on MoM basis as earlier high prices contributed to deterioration in its demand. However, prices of palm oil rose by 1.6 percent (MoM) due to higher imports by China and several other countries.⁶

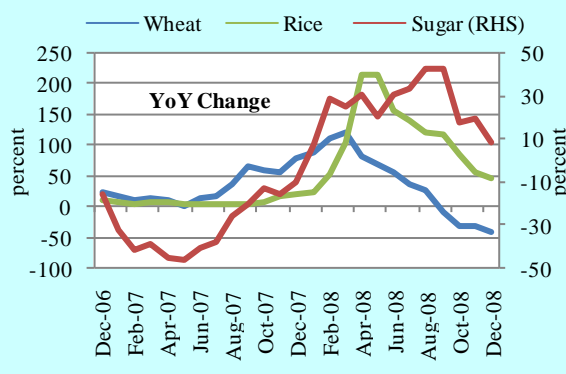
Among food grains, wheat prices declined by 40.3 percent (YoY) due to; (a) speculation that a global recession will slash demand for food, livestock feed and fuel made from the crops; and (b) expected improvement in inventories on news that wheat output in Australia has been projected to be about 20 million metric tons (MT) against its previous month forecast of 19.9 MT and last year's 13 MT crop⁷. Rice and sugar prices decelerated on YoY basis in December 2008. Sugar prices fell on signs that output in Brazil may exceed previous estimates for the current marketing year. According to analysts, favorable weather in December will help push the total amount of sugarcane crushed this season to as high as 495 million tons, up 20 million tons from the previous quarterly report. Moreover, speculation that a drop in crude oil prices will reduce the demand for ethanol made from sugarcane also contributed to reduce sugar price⁸ (see **Figure 4.3**).

Figure 4.2: Oil Price/Index



Source: IMF

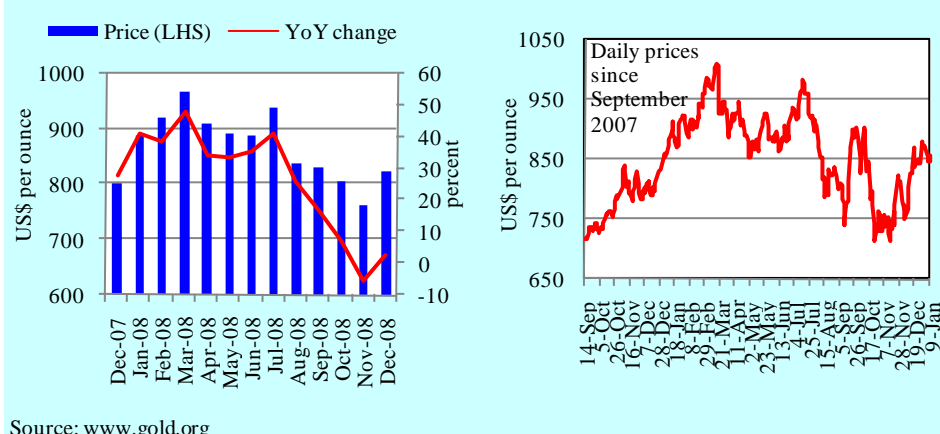
Figure 4.3: Wheat, Rice and Sugar Prices



⁶ WB Commodity Markets Review (January 13, 2008)

⁷ www.bloomberg.com

⁸ www.bloomberg.com and www.reuters.com

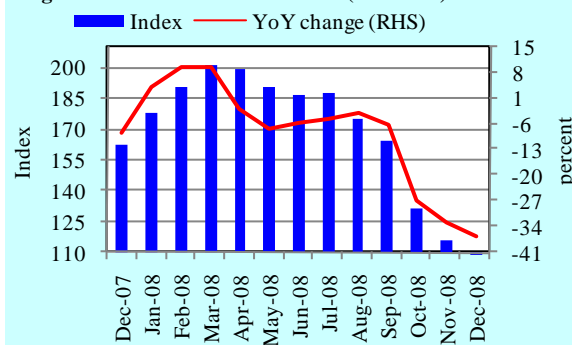
Figure 4.4: Gold

Source: www.gold.org

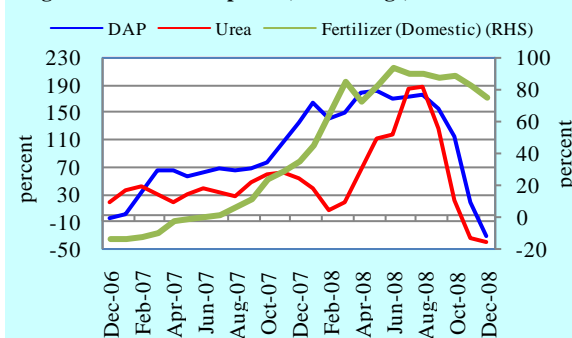
After declining in November 2008, gold prices rose to US\$ 822 per ounce in international market compared to US\$ 803.2 per ounce a year earlier. The gain in gold prices was mainly due to the weakening of dollar against the euro and the yen, boosting interest in the metal as a currency hedge.

Gold also gained as the Federal Reserve slashed US interest rates coping economic slowdown, bolstering bullion's appeal as a hedge against inflation (see **Figure 4.4**).

Metal prices plunged further in December 2008 reaching to a level not seen after October 2005 as reflected by IMF metal price index. The decline in metal prices for the 8th consecutive month can be attributed to a number of factors such as; (a) sharp contraction in demand; (b) the continuing large build up inventories; and (c) recent strength of dollar (see **Figure 4.5**). Almost all industrial metals, including lead, nickel, zinc, copper and aluminum

Figure 4.5: IMF Metal Price Index (2005=100)

Source: IMF

Figure 4.6 : Fertilizer prices (YoY change)

Source: World Bank

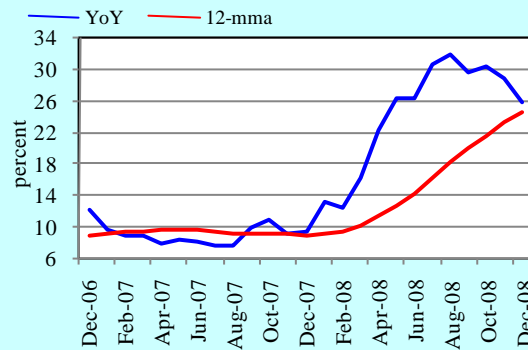
witnessed significant price declines not only on YoY basis but also on MoM basis mainly due to falling demand particularly in construction and auto sectors.

Cotton prices showed a small rise of 1 percent during December 2008 over the preceding month. Fertilizer prices continued to slowdown in the international and domestic markets during the month under review. DAP and urea prices exhibited sharp decline on YoY and MoM basis on account of continuing weak global demand and availability of ample inventories (see **Figure 4.6**).

5. Sensitive Price Indicator

Sensitive price indicator (SPI) witnessed slight ease in inflation (YoY) during December 2008 falling to 25.7 percent compared to 28.8 percent during the previous month. This is, however, still higher as compared to the same month last year. The long-run trend in SPI, indicated by 12-month moving average, continued on its uptrend to reach 24.6 percent during the month under review (see **Figure 5.1**).

Figure 5.1: SPI Inflation (YoY)



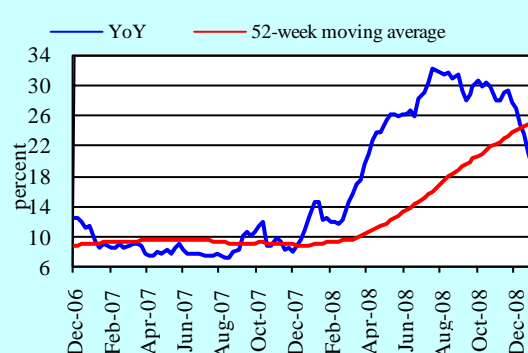
A disaggregated analysis of the SPI basket reveals that out of 53 items included in the SPI basket, prices of five items either declined or saw no change, two items registered a price change between 0 to 5 percent, three items recorded price change between 5 to 10 percent and the remaining forty three items witnessed double digit price growth during December 2008 (see **Table 5.1**). In particular, items like pulse masoor (112.2 percent), potatoes (66.6 percent), tea packet (65.4 percent), kerosene (58.6 percent), diesel (52.4 percent) and rice irri-6 (51.8 percent) registered high YoY growth during the month under review.

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

Percent change	Number of items			
	Dec-07	Jun-08	Nov-08	Dec-08
0 or less	14	7	5	5
0 to 5	7	3	2	2
5 to 10	8	6	5	3
10 or above	24	37	41	43
Minimum	-48.8	-59.4	-58.0	-13.8
Maximum	59.4	134.9	118.3	112.2

SPI, on month over month (MoM) basis, witnessed negative growth for the second consecutive month during December 2008. This downtrend in SPI inflation

Figure 5.2: Weekly SPI Inflation



(MoM) was contributed by items like potatoes, petrol, LPG and kerosene that recorded double digit negative growth during the month under review (see **Table A8** in Annexure A).

Weekly SPI witnessed a downtrend in YoY inflation throughout December 2008 and fluctuated within the range of 23.6 percent to 27.8 percent. On the other hand, the long run trend in weekly SPI inflation, indicated by 52-week moving average, continued on its uptrend during December 2008 (see **Figure 5.2**).

Income group-wise SPI data for December 2008 showed a decline in SPI inflation (YoY) for all income groups compared to the preceding month. The incidence of SPI inflation (YoY) remained the highest for the income group having monthly income between Rs. 5000 to

Table 5.2 : Income Group-wise SPI Inflation (YoY)				
	percent			
	Dec-07	Jun-08	Nov-08	Dec-08
Up to Rs. 3000	11.8	30.0	29.8	25.8
Rs. 3001-5000	11.5	29.2	29.4	26.3
Rs. 5000-12000	10.4	27.0	29.5	26.9
Above Rs. 12000	7.1	23.5	28.4	25.0
All income groups	9.2	26.3	28.8	25.7

12000. Further analysis of the income group-wise SPI inflation reveals that all income groups, except the highest income group, experienced higher SPI inflation than the average SPI inflation for the month under review (see **Table 5.2**).

Annexure A

Table A1: CPI Inflation (YoY) by Groups						
	Weights	Dec-04	Dec-05	Dec-06	Dec-07	Dec-08
I. Food Group	40.3	7.9	8.1	12.7	12.2	27.9
II. Non-Food Group	59.7	7.0	8.8	6.2	6.3	19.8
Apparel, textile, etc.	6.1	2.5	3.8	4.0	8.7	15.7
House rent	23.4	11.7	10.3	6.4	8.8	17.6
Fuel & lighting	7.3	3.0	7.1	10.9	5.5	29.5
Household furniture & equipment	3.3	6.9	5.0	6.4	6.5	14.6
Transport & communication	7.3	6.7	19.9	3.4	-3.0	25.7
Recreation & entertainment	0.8	0.0	-0.3	0.3	0.4	12.6
Education	3.5	2.6	6.6	7.3	4.4	17.0
Cleaning, laundry, etc.	5.9	5.2	2.3	4.3	8.9	19.8
Medicare	2.1	0.9	2.3	9.6	7.6	12.7
Headline	100	7.4	8.5	8.9	8.8	23.3

Table A2: Distribution of Price Changes of CPI Basket, December 2008 (YoY)						
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	27.9	110	5	3	9	93
II. Non-Food Group	19.8	250	29	19	32	170
Apparel, textile, etc.	15.7	42	2	1	10	29
House rent	17.6	1				1
Fuel & lighting	29.5	15	2	1	3	9
Household furniture & equipment	14.6	44		2	4	38
Transport & communication	25.7	43	4	1	2	36
Recreation & entertainment	12.6	16	2	5	3	6
Education	17.0	24	3	3	1	17
Cleaning, laundry, etc.	19.8	36	1	3	6	26
Medicines	12.7	29	15	3	3	8
Overall	23.3	360				

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

Table A3: Top Ten Contribution to YoY CPI Inflation in December 2008					
Items		Weights	YoY change		Weighted Contribution
			Dec-07	Dec-08	
A. Ranked by Weighted Contribution					
1	House Rent Index	23.43	8.84	17.56	17.45
2	Wheat Flour	5.11	39.98	44.66	12.11
3	Milk Fresh	6.66	12.74	23.64	7.40
4	Electricity	4.37	10.07	33.20	4.80
5	Transport Fare/Charges	2.12	1.81	44.58	4.57
6	Rice	1.34	59.17	44.76	3.40
7	Natural Gas	2.05	-0.69	21.47	2.68
8	Meat	2.70	5.47	14.99	2.51
9	Readymade Food	1.68	8.44	31.58	2.45
10	Vegetables	1.92	2.10	25.07	2.17
Total		51.38			59.53
B. Ranked by Percentage Change					
1	Pulse Masoor	0.22	38.26	114.58	1.15
2	Match Box	0.13	0.00	100.00	0.36
3	Potatoes	0.55	-33.85	77.76	1.70
4	Condiments	0.34	21.23	76.30	0.98
5	Kerosene	0.14	0.00	64.18	0.57
6	Tea	1.26	-4.70	53.05	2.01
7	Diesel	0.21	-2.56	51.91	0.71
8	Maida	0.11	36.44	51.81	0.27
9	Train Fare	0.15	0.00	48.96	0.35
10	Onions	0.60	-49.40	47.79	1.39
		3.70			9.50
C. Ranked by Weights					
1	House Rent Index	23.43	8.84	17.56	17.45
2	Milk Fresh	6.66	12.74	23.64	7.40
3	Wheat Flour	5.11	39.98	44.66	12.11
4	Electricity	4.37	10.07	33.20	4.80
5	Bakery & Confectionary	2.98	5.22	14.35	1.47
6	Meat	2.70	5.47	14.99	2.51
7	Vegetable Ghee	2.67	41.59	4.58	0.70
8	Tution Fees	2.36	4.94	12.97	1.24
9	Transport Fare/Charges	2.12	1.81	44.58	4.57
10	Natural Gas	2.05	-0.69	21.47	2.68
		54.45			54.91
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 23.3 percent in December 2008.					

Table A4: Distribution of Price Changes - Selected CPI Items, December 2008

Groups	Decrease or no change	Subdued increase (upto 5%)	Moderate increase (5 to 10%)	Increase of over 10%
Food Group	Garlic, Vegetable Ghee (Loose) Pulse Moong (Washed) Tomatoes Chocolate Candy (Small Size)	Biscuits-Packed Cold Drink (Standard Size) Toffee (Hilal)	Apple Cigarettes Capstan 10'S Cigarettes K-2 10'S Pulse Mash (Washed) Chillies Green Jam Ahmed/Mitchelles Rooh Afza Fruit Juice Tetra Pack Pepper Black National	Milk Fresh (Unboiled) Wheat Flour Bag, Sugar Refined, Beef With Bone Average .Quality, Wheat Flour, Fine/Superior., Vegetable Ghee Tin Mutton Average .Quality. Chicken Farm Broiler (Live), Cooking Oil
Apparel & Textile	Awami-Suit W&W (Gents) Average quality	Gents Sandal Bata Pullover Ladies Oxford/Bonanza	Pullover (Gents) Others Average quality, School University. Kameez, Shalwar .Boys Pullover Gents Oxford/Bonanza.	Pant Cloth W & Wear Average quality, Full Pant Boy 24"/26" Length, Long Cloth Average quality
House Rent Index				House Rent Index
Fuel & Lighting	Gas Cylinder Standard Size Electricity .Charges Upto 50 Units	Tube Light Philips 40 Watts	Gas Charges 3.3719 - 6.7438 Mmb Gas Charges upto 3.3719 Mmbtu	Electricity .Charges 01 - 100 Unit Firewood Whole Elect. Charges 301 - 1000 Units,
Household Furniture & Equipment		Blanket (90" X 54") Carpet Plain Average Quality	Electric Juicer For Apple, Household Servant Female P/T Farshi Dari 12'X9' Average Quality	Elect. Iron Philips Mdl.1120, Tea-Set S.Steel 3 Pcs. M.Siz S.Steel Deghchi Medium Size
Transport & Communication.	Platform Ticket Postal Envelope Domestic Aerogram For Saudi Arabia Car Tax For 800Cc To 1300Cc	Telephone Charges Local Call	Tel Charges Out Side City Petrol Super	Motorcycle Yamaha100Cc.,Internet Charges Car Service Charges Tyre Car With Tube General
Recreation & Entertainment	Weekly "Akhbar-E-Jahan" Tv.Licence Feedomestic	Tape Recorder Cassette Blan V.C.P. Panasonic/Lg/Nat Vid. Cassette Blk. Tdk/Sony	Cinema A/C. Highest Class, T.V. 20" Colored With R/Cont Cinema Non-A/C High Class	Daily "Dawn" Daily "Jang" Daily "Nawa-E-Waqt"
Education	Com. C.D. (Tdk/Imation) Govt. College Fee 1st. Year Govt. College Fee	Govt. Engg. Coll. Fee I Year Comp. With Printer & Speaker Govt. University Fee	Urdu Book Class V (T.B.Bord)	School Fee 2Nd-Ry English .Med, School Fee Primary Eng.Med. Paper Foolscape (27"X17")
Cleaning & Laundry	Toothpaste Macklines 70 Grm	Brylcreem 210 Ml. Lipstick S.Miss/Medora Talc Powder Vice Roay,B.Cat	Facecream Ponds (Medium),Toothbrush Sheild A/Plauque, Toothpowder Dentonic 90 Grm Hair-Color Begin	Haircut Charges For Men, Washing Soap Nyl(135-160Gms), Toilet Soap Lux 95 Grams, Shampoo
Medicare	Entox Tab, Calpol Syrup 60 Ml., Amoxil Capsule 250 Mg.S	Flagyl Tab. 200 Mg. Septran Tablets Panadol Tab. Extra/Plain	Brufen Tabs 200-Mg. O.R.S. (Nimcol) Thermometer China	Doctor (Mbbs) Clinic Fee Cotton Bandage 2" - 4" Gripe-Water

Table A5: City-wise Inflation (YoY) by Income Groups, December 2008							
		Upto Rs:3000			Rs 3001-5000		
		General	Food	Non-Food	General	Food	Non-Food
1	Lahore	23.1	27.8	20.0	23.6	27.4	21.0
2	Faisalabad	21.8	22.3	21.6	23.4	22.7	23.8
3	Rawalpindi	23.6	27.7	20.9	24.4	28.6	21.6
4	Multan	19.5	22.3	17.7	20.0	21.8	18.7
5	Gujranwala	21.8	23.5	20.7	22.9	23.9	22.2
6	Islamabad	22.2	26.6	19.2	22.5	27.8	18.9
7	Sargodha	25.9	31.2	22.4	26.8	32.3	23.1
8	Sialkot	23.6	28.9	20.1	25.0	30.1	21.5
9	Bahawalpur	17.8	19.9	16.4	18.9	20.1	18.0
10	Karachi	25.7	30.6	22.4	25.8	30.1	22.9
11	Hyderabad	23.3	28.2	20.0	23.0	27.2	20.1
12	Sukkur	27.1	35.3	21.5	27.7	34.8	22.9
13	Larkana	20.7	22.2	19.7	20.3	20.7	20.1
14	Peshawar	25.4	30.4	21.9	28.6	33.6	25.2
15	Bannu	25.7	32.8	20.9	24.9	32.4	19.9
16	Quetta	29.4	38.6	23.3	26.9	36.2	20.6
17	Khuzdar	30.2	38.8	24.5	28.9	36.6	23.7
		Rs 5001-12000			above Rs 12000		
		General	Food	Non-Food	General	Food	Non-Food
1	Lahore	22.9	27.1	20.0	20.5	25.4	17.3
2	Faisalabad	22.6	21.9	23.0	20.4	20.4	20.5
3	Rawalpindi	23.7	27.8	20.9	21.6	26.0	18.7
4	Multan	19.9	21.7	18.6	18.3	20.3	17.0
5	Gujranwala	21.7	22.7	21.1	19.8	21.4	18.7
6	Islamabad	23.1	28.8	19.3	20.5	25.8	16.9
7	Sargodha	26.7	32.1	23.1	24.5	30.2	20.7
8	Sialkot	25.1	30.5	21.3	23.8	30.3	19.4
9	Bahawalpur	18.6	19.6	18.0	18.0	18.9	17.5
10	Karachi	25.3	29.7	22.4	21.9	28.3	17.7
11	Hyderabad	23.2	27.6	20.2	21.9	27.0	18.6
12	Sukkur	27.1	33.7	22.7	26.1	32.3	22.0
13	Larkana	21.2	21.9	20.7	22.2	23.3	21.4
14	Peshawar	27.7	33.2	23.9	25.7	31.8	21.6
15	Bannu	23.6	31.9	18.0	24.2	31.8	19.0
16	Quetta	27.2	37.1	20.5	25.6	35.8	18.8
17	Khuzdar	26.2	35.6	19.9	24.2	32.5	18.5

Table A6 : Income group-wise Inflation (YoY)								percent
	May-08	Jun-08	Jul-08	Aug-08	Sep-08	Oct-08	Nov-08	Dec-08
<u>Up to Rs. 3000</u>								
General	23.2	25.3	27.2	28.5	26.4	28.1	27.3	24.8
Food	31.5	34.7	36.4	37.3	32.2	34.7	33.0	29.0
Non-food	17.1	18.6	20.6	22.0	21.9	23.0	22.9	21.5
<u>Rs. 3001-5000</u>								
General	22.6	24.8	26.9	28.0	25.9	27.5	27.4	25.0
Food	31.4	34.8	36.6	37.2	32.0	34.2	32.4	28.6
Non-food	16.3	17.8	19.8	21.3	21.4	22.4	23.7	22.3
<u>Rs. 5000-12000</u>								
General	20.4	22.6	25.3	26.4	24.7	26.1	26.1	24.4
Food	29.5	33.0	34.8	35.2	30.6	32.5	31.2	28.3
Non-food	13.7	14.9	18.2	19.8	20.2	21.0	22.2	21.3
<u>Above Rs. 12000</u>								
General	17.4	19.8	22.8	23.7	22.6	23.3	22.5	21.8
Food	26.1	29.8	31.4	31.4	28.1	29.5	28.5	27.0
Non-food	10.8	12.4	16.5	17.8	18.3	18.4	17.7	17.7
<u>All income groups</u>								
General	19.3	21.5	24.3	25.3	23.9	25.0	24.7	23.3
Food	28.5	32.0	33.8	34.1	29.9	31.7	30.4	27.9
Non-food	12.5	13.8	17.3	18.7	19.2	19.7	20.2	19.8

Table A7: Distribution of Price Change (YoY) - WPI Items: December 2008				
Groups	Decrease or no change	Subdued increase (upto 5%)	Moderate increase (5 to 10%)	More than 10% increase
Food				Cotton Seed Oil, Fruit Prepared/Preserved, Salt, Gur, Fish, Mustard & Rapeseed Oil, Meat, Maize Milk Food, Bajra, Fresh Milk, Jowar, Dry Fruits Onions, Vegetables, Prepared/Preserved, Chicken, Oil Cakes, Eggs Rice, Beans, Cooking Oil Sugar Refined, Wheat, Wheat Flour, Tea, Gram Whole, Vegetables, Powdered Milk, Gram Split Besan, Spices, Maida, Potatoes, Condiments, Masoor
	Tomatoes Vegetable Ghee Moong	Sugar Confectionary Mineral Water	Beverages Fresh Fruits Mash	
Raw material	Cotton	Hides	Wool	Skins, Sugar Cane Pig Iron, Cotton Seeds Tobacco, Mustard/Rapeseeds
Fuel & lighting	Furnace Oil		Motor Sprit	Elec. Agriculture Tariff-D Coal, Fire Wood, Electricity Ind. Supply Tariff-B, Mobil Oil, Natural Gas, Kerosine Oil, Diesel Oil, Coke
Manufactures	Cotton Yarn Drugs & Medicines	Cosmetics Paper	Dying Materials, Ready Made Garments, Cigarettes Jute Manufactures, Sole Leather, Chrome Leather, Mattresses Chemicals, Cotton Textiles, Audio- Visual Instruments Transports	Woolen Textiles, Blended Yarn, Silk & Reyon Textiles Hosiery, Foot Wear, Matches, Other Electrical Goods, Pesticides & Insecticised, Plastic Products, Soaps, Machinery Utensils, Glass Products Nylon Yarn, Tyres, Tubes Fertilizers
Building material	Tiles	Bricks		Paints & Varnishes, Timber Pipe Fittings, Sanitary Wares, Iron Bars & Sheets Cement, Wires And Cables Glass Sheets, Cement Blocks

Table A8: SPI Item-wise Price Movements

S.No	Items	Unit	Price Dec 08	Percentage change	
				YoY	Monthly
1	Wheat	Kg.	24.7	44.4	-1.7
2	Wheat flour average quality.	Kg.	26.4	43.3	-2.3
3	Rice basmti.broken	Kg.	46.4	37.8	-5.3
4	Rice irri-6	Kg.	37.2	51.8	-5.6
5	Masur pulse washed	Kg.	128.4	112.2	-0.6
6	Moong pulse washed	Kg.	48.9	-2.2	-2.4
7	Mash pulse washed	Kg.	75.6	7.7	0.9
8	Gram pulse washed	Kg.	57.7	45.9	-1.8
9	Beef	Kg.	142.5	17.3	0.3
10	Mutton	Kg.	257.5	10.4	0.4
11	Egg hen (farm)	Doz.	74.5	30.6	11.2
12	Bread plain	Each	24.1	33.6	1.0
13	Sugar	Kg.	35.3	30.6	-1.6
14	Gur	Kg.	38.5	19.9	-2.6
15	Milk fresh	Litr	36.2	22.4	0.3
16	Milk powdered nido	400g	170.0	17.0	0.0
17	Curd	Kg.	43.0	24.7	0.1
18	Veg.ghee tin	2.5k	355.0	23.0	0.0
19	Veg.ghee loose	Kg.	92.6	-8.0	-9.5
20	Mustard oil	Kg.	140.6	20.7	-3.2
21	Cooking oil	2.5l	374.8	29.8	-0.1
22	Potatoes	Kg.	22.0	66.6	-20.2
23	Onions	Kg.	27.0	47.1	12.8
24	Tomatoes	Kg.	37.6	41.1	-2.7
25	Bananas	Doz.	33.0	16.1	3.9
26	Salt powdered	Kg.	6.0	17.5	0.3
27	Red chillies(powd)	Kg.	139.0	3.9	-3.3
28	Garlic	Kg.	43.5	-13.8	-1.5
29	Tea packet	250g	107.5	65.4	3.0
30	Tea (prepared)	Cup	8.4	24.4	0.4
continued					

Table A8 (continued)

S.No	Items	Unit	Price Dec 08	Percentage change	
				YoY	Monthly
31	Cooked beef plate	Each	40.3	24.7	0.2
32	Cooked dal plate	Each	25.7	31.9	0.0
33	Cigarettes k-2	10's	8.9	7.1	0.0
34	Coarse latha	Mtr.	45.2	16.0	0.2
35	Lawn (avg.+s.qlty)	Mtr.	89.9	11.7	0.0
36	Voil printed	Mtr.	45.5	16.2	0.0
37	Shirting	Mtr.	79.4	11.9	0.6
38	Sandel gents bata	Pair	499.0	0.0	0.0
39	Sandel ladies bata	Pair	379.0	26.8	0.0
40	Chappal spng. Bata	Pair	129.0	30.3	0.0
41	Kerosene	Litr	63.6	58.6	-10.2
42	Firewood	40kg	267.6	23.2	1.3
43	Elec. Bulb 60-wats	Each	14.2	10.4	2.6
44	Match box	Each	1.0	12.4	0.0
45	Washing soap	Cake	12.6	33.5	-0.8
46	Bath soap lifebuoy	Cake	22.0	29.4	0.0
47	Chicken (farm)	Kg.	89.7	18.1	-4.6
48	Gas chrg. All clb. Comb	D.mmbt	273.7	21.8	0.0
49	L.P.G .(cylinder 11kg.)	Each	726.7	-1.9	-13.9
50	Elec.chrg.all slabs comb	Bd. Unit	6.8	32.4	10.1
51	Petrol	Litr	58.3	8.3	-19.4
52	Diesel	Litr	57.7	52.4	-8.7
53	Telephone local	Call	2.4	4.8	2.1
Maximum				112.2	12.8
Median				23.0	0.0
Minimum				-13.8	-20.2

Table A9: Consumer Price Index Numbers by Major Groups and Selected Commodities			
Item and Specification	Weights	Index	
		Dec-07	Dec-08
GENERAL	100.0010	154.77	190.90
FOOD & BEVERAGES.	40.3416	167.85	214.71
1 WHEAT	0.4830	201.18	286.67
2 WHEAT FLOUR	5.1122	191.46	276.97
3 MAIDA	0.1059	177.15	268.93
4 BESAN	0.1320	146.89	211.82
5 RICE	1.3369	205.25	297.12
6 PULSE MASOOR	0.2214	163.55	350.95
7 PULSE MOONG	0.2230	169.73	162.38
8 PULSE MASH	0.2017	154.29	167.77
9 PULSE GRAM	0.4272	138.51	202.20
10 GRAM WHOLE	0.1491	135.14	183.84
11 MUSTARD OIL	0.0456	207.24	253.95
12 COOKING OIL	0.6858	180.48	235.55
13 VEGETABLE GHEE	2.6672	205.92	215.35
14 SUGAR	1.9467	98.15	129.05
15 GUR	0.0735	122.72	147.07
16 TEA	1.2559	109.06	166.92
17 MILK FRESH	6.6615	169.64	209.74
18 MILK POWDER	0.1105	174.03	204.71
19 MILK PRODUCTS	0.5607	154.57	195.47
20 HONEY	0.0358	132.68	174.58
21 CEREALS	0.0878	153.19	224.72
22 JAM,TOMATO,PICKLES & VINEGAR	0.2472	138.47	162.58
23 BEVERAGES	0.7286	142.29	162.42
24 CONDIMENTS	0.3392	137.06	241.63
25 SPICES	0.6008	150.22	209.30
26 DRY FRUIT	0.2760	231.85	300.29
27 BAKERY & CONFECTIONARY	2.9837	123.89	141.67
28 CIGARETTES	0.9527	158.07	174.87
29 BETEL LEAVES & NUTS	0.1851	146.57	167.96
30 READYMADE FOOD	1.6833	166.44	219.01
31 SWEETMEAT & NIMCO	0.3846	171.27	220.31
32 FISH	0.2703	148.21	179.02
33 MEAT	2.6981	223.73	257.27
34 CHICKEN FARM	0.9158	141.65	180.49
35 EGGS	0.4119	215.44	279.39
36 POTATOES	0.5542	142.29	252.94
37 ONIONS	0.5973	176.41	260.71
38 TOMATOES	0.4569	186.67	185.14
39 VEGETABLES	1.9165	162.81	203.62
40 FRESH FRUITS	1.6160	153.86	184.77
APPAREL, TEXTILE & FOOTWEAR.	6.0977	132.52	153.35
41 COTTON CLOTH	1.6197	136.03	155.60
42 SILK,LINEN,WOOLEN/CLOTH	0.5766	133.59	151.82
43 TAILORING CHARGES	0.8636	135.46	160.27
44 HOSIERY	0.1528	141.30	163.02
45 READYMADE GARMENTS	1.2038	127.65	140.81
46 WOOLEN READYMADE GARMENTS	0.1485	144.11	173.13
47 FOOTWEAR	1.5327	128.58	154.62
HOUSE RENT.	23.4298	153.10	179.99
48 HOUSE RENT INDEX (Combined)	23.4298	153.10	179.99

(continued)

(continued)

Table A9: Consumer Price Index Numbers by Major Groups and Selected Commodities			
Item and Specification	Weights	Index	
		Dec-07	Dec-08
FUEL AND LIGHTING.	7.2912	156.37	202.54
49 KEROSENE	0.1366	235.87	387.26
50 FIREWOOD	0.4778	230.87	298.14
51 MATCH BOX	0.1301	100.00	200.00
52 BULB & TUBE	0.1311	93.52	99.31
53 ELECTRICITY	4.3698	119.53	159.21
54 NATURAL GAS	2.0458	219.98	267.22
H.HOLD.FURNITURE & EQUIPMENT ETC.	3.2862	139.58	159.97
55 UTENSILS	0.3690	124.50	145.72
56 PLASTIC PRODUCTS	0.1055	146.26	187.77
57 SUITCASE	0.0470	130.00	153.83
58 HOUSE HOLD EQUIPMENTS	0.0953	124.03	146.80
59 FURNITURE (Ready Made)	0.3054	141.45	171.25
60 FURNISHING	0.6362	135.22	152.81
61 ELECT.IRON FANS & WASHING MACHINE	0.1889	127.53	157.65
62 SEWING MACHINE,CLOCK AND NEEDLES	0.1270	119.53	137.40
63 REFRIGERATOR & AIRCONDITIONER	0.1756	101.54	127.90
64 MARRIAGE HALL	0.0445	155.06	182.47
65 HOUSE HOLD SERVANT	1.1918	156.20	170.78
TRANSPORT & COMMUNICATION.	7.3222	147.17	185.00
66 PETROL	1.7253	175.59	189.71
67 DIESEL	0.2070	238.74	362.66
68 CNG. FILLING CHARGES	0.1649	143.12	189.08
69 SERVICE CHARGES	0.3835	135.18	161.51
70 VEHICLES	0.2596	101.39	126.50
71 TYRE & TUBE	0.2831	127.09	155.07
72 TRANSPORT FARE/CHARGES	2.1236	174.11	251.72
73 TRAIN FARE	0.1514	170.01	253.24
74 AIR FARE	0.0983	253.00	342.93
75 COMMUNICATION	1.9255	86.79	91.31
RECREATION & ENTERTAINMENT.	0.8259	106.24	119.61
76 RECREATION	0.3399	101.91	128.36
77 ENTERTAINMENT	0.4860	109.26	113.50
EDUCATION.	3.4548	139.46	163.18
78 TUTION FEES	2.3629	145.58	164.46
79 STATIONERY	0.3500	130.20	163.54
80 TEXT BOOKS	0.6894	127.63	164.64
81 COMPUTER & ALLIED PRODUCTS	0.0525	81.52	84.19
CLEANING LAUNDRY & PER.APPEARANCE.	5.8788	135.28	162.03
82 WASHING SOAP & DETERGENT	1.5535	124.18	156.81
83 TOILET SOAP	0.7436	144.11	186.50
84 TOOTH PASTE	0.4036	108.42	112.31
85 SHAVING ARTICLES	0.3480	118.71	144.91
86 COSMETICS	1.4272	127.91	143.29
87 WATCHES	0.0552	125.18	138.22
88 JEWELLERY	0.3936	229.09	289.41
89 LAUNDRY CHARGES	0.2207	150.93	176.39
90 HAIR CUT & BEAUTY PARLOUR CHARGES	0.7334	132.56	149.37
MEDICARE.	2.0728	130.05	146.53
91 DRUGS & MEDICARES	1.0752	107.25	114.43
92 DOCTOR'S FEE	0.9976	154.62	181.11

Figure A1: CPI Non-food Inflation

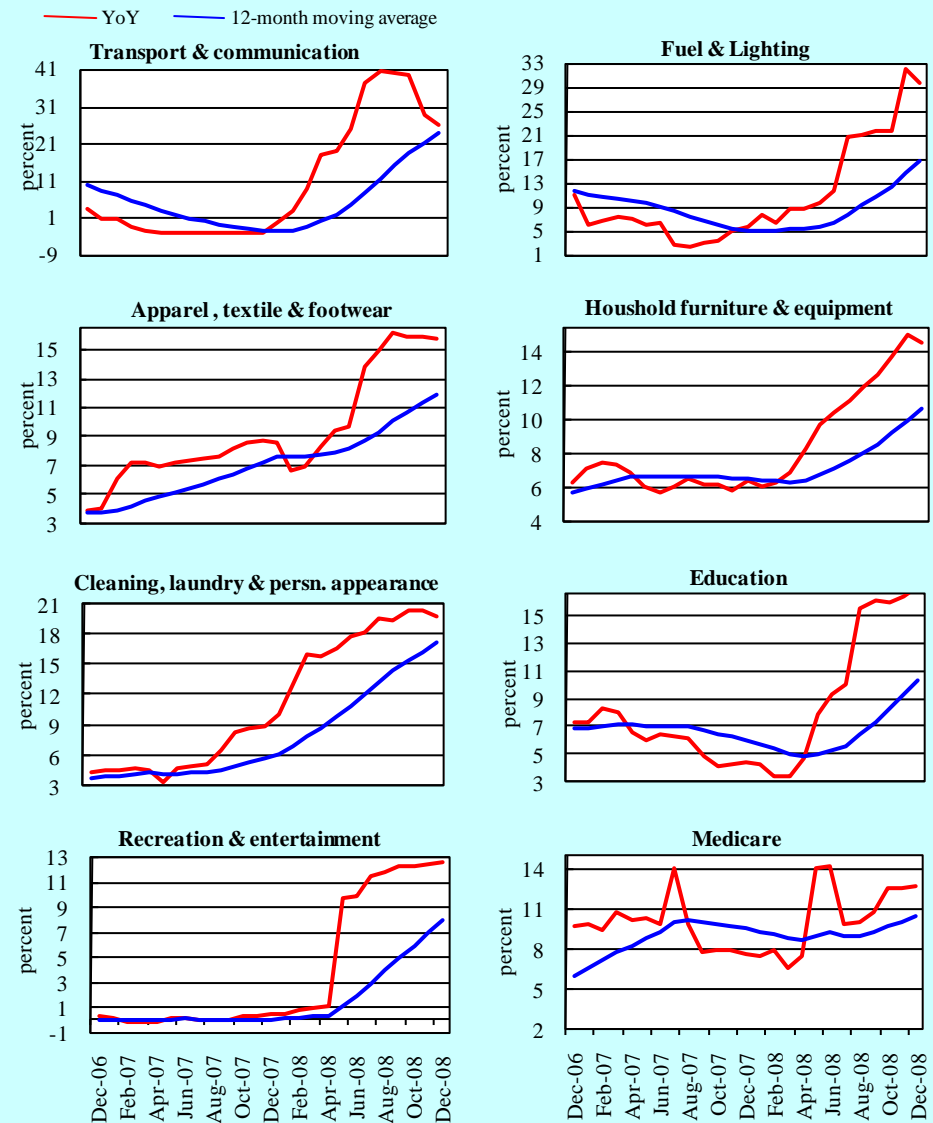
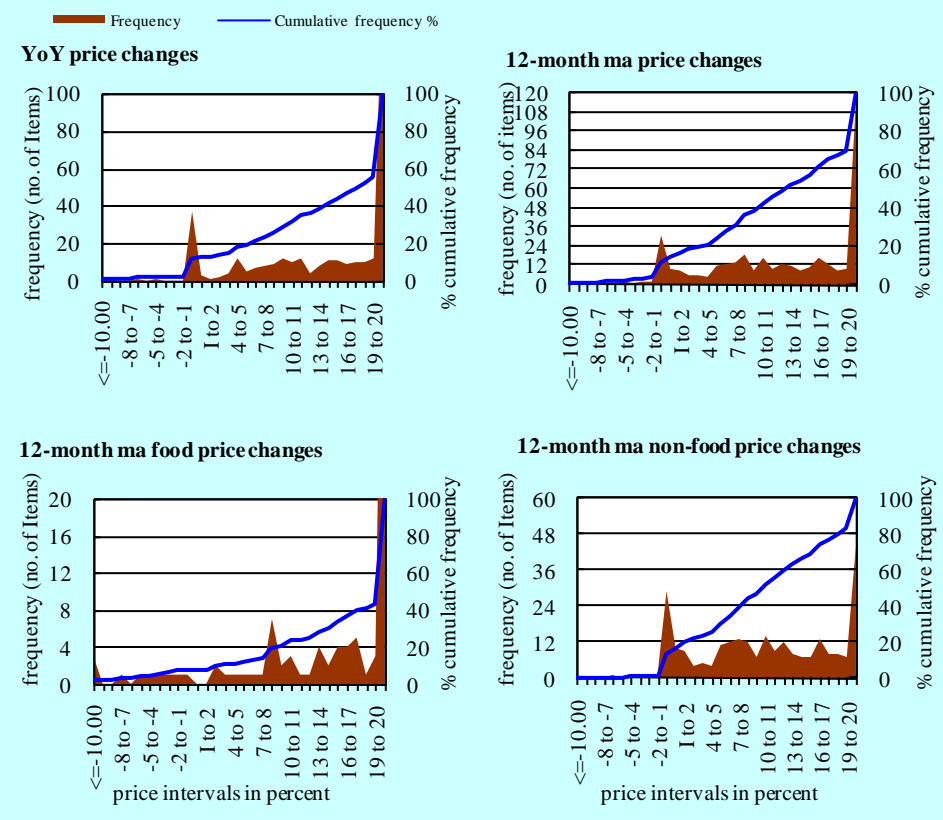


Figure A2: Frequency Distribution of Price Changes of CPI Items, December 2008



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

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

w_i : Weights of i^{th} item

π_{it} : Inflation of i^{th} item

π_t : Overall inflation