

Inflation Monitor

March 2009



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Overview

Headline CPI inflation (YoY) eased in March 2009, dropping to 19.1 percent as against 21.1 percent during the previous month. This ease came mainly from a decline in CPI food group inflation, that fell to 19.7 percent during the month, compared to 22.9 percent during February 2009. Inflation (YoY) in the non-food group of CPI also eased during March 2009, compared to the previous month. But the decline was not as pronounced as in CPI food group.

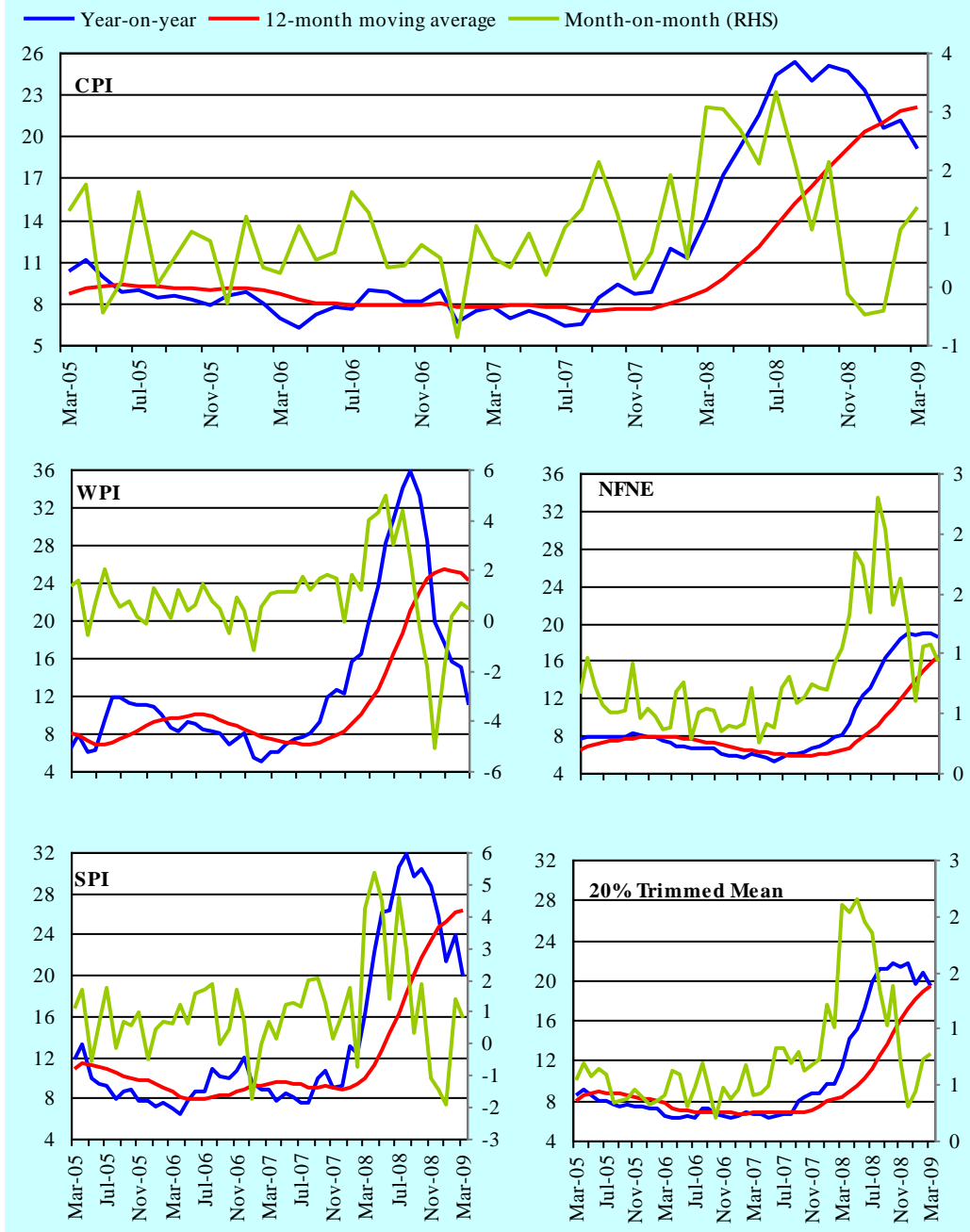
In contrast to CPI YoY, CPI month-on-month (MoM) registered higher inflation during March 2009, compared to the previous month. CPI inflation (MoM) rose by 1.4 percent during the month (the highest level since November 2008). However, relative to March 2008, a lower pace of MoM inflation suggests that inflationary pressures are finally easing. A similar trend can be seen in both food and non-food inflation (see **Table 1.1**).

Similarly, both measures of core inflation, non food non energy (NFNE) and 20% trimmed mean, registered a decline during March 2009, reflecting easing inflationary pressures. NFNE inflation (YoY) reached 18.5 percent during the month under review compared to 18.9 percent in the previous month. Similarly core inflation measured by 20% trimmed mean also dropped to 19.3 percent during March 2009, compared to 20.8 percent in the preceding month.

Among other indicators of inflation, both wholesale price index (WPI) and sensitive price indicator (SPI) also witnessed an ease in inflation (YoY) during March 2009. In particular, WPI inflation (YoY) fell sharply during March 2009 to 11.1 percent compared to 15.0 percent in February 2009. Sensitive price indicator (SPI) inflation (YoY) decreased during the month under review and was recorded at 19.8 percent (YoY) compared to 23.9 percent in February 2009 (see **Figure 1.1**).

Table 1.2: Different Dimensions of Inflation (percent)					
	Mar-08	Jun-08	Feb-09	Mar-09	5-year average#
Year-on-year (March over March)					
Overall CPI	14.1	21.5	21.1	19.1	8.9
Food group	20.6	32.0	22.9	19.7	11.5
Non-food group	9.4	13.8	19.6	18.5	7.0
WPI	19.8	30.6	15.0	11.1	9.8
SPI	16.2	26.3	23.9	19.8	10.0
Core Inflation					
NFNE*	9.3	13.0	18.9	18.5	6.8
Trimmed	11.3	17.2	20.8	19.3	7.5
Period average (July over March)					
Overall CPI	9.5	12.0	23.5	23.0	7.7
Food group	13.8	17.6	28.9	27.8	9.7
Non-food group	6.3	7.9	19.3	19.2	6.3
WPI	12.6	16.4	24.7	23.1	8.7
SPI	10.6	14.2	13.9	13.7	8.9
Core Inflation					
NFNE*	7.1	8.4	17.8	17.9	6.2
Trimmed	8.7	10.2	20.7	20.4	7.0
12-month moving average					
Overall CPI	8.9	12.0	21.7	22.1	7.5
Food group	13.0	17.6	28.2	28.0	9.3
Non-food group	6.0	7.9	16.8	17.6	6.2
WPI	11.2	16.4	25.0	24.1	8.5
SPI	10.0	14.2	26.1	26.3	8.6
Core Inflation					
NFNE*	6.7	8.4	15.7	16.5	6.1
Trimmed	8.4	10.2	18.9	19.4	6.9
Monthly					
Overall CPI	3.1	2.1	1.0	1.4	1.2
Food group	4.9	2.5	0.6	2.2	2.0
Non-food group	1.7	1.8	1.2	0.7	0.7
WPI	4.0	3.0	0.7	0.4	1.6
SPI	4.2	1.4	1.4	0.8	1.6
Core Inflation					
NFNE*	1.3	1.3	1.1	0.9	0.6
Trimmed	2.1	1.9	0.7	0.8	0.9
* 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

CPI inflation (YoY)

continued to decelerate for the fifth consecutive month, dropping to 19.1 percent in March 2009; 2.0 percentage points lower than the previous month. This is still, however, 4.9 percentage points higher than the CPI inflation recorded in March 2008. The down trend was led principally by food inflation, which decelerated

to 19.7 percent in March 2009, compared to its peak of 34.1 percent in August 2008. This is the first time since December 2007 that CPI food inflation for any month dropped below its corresponding number. Non food inflation (YoY) also declined compared to the previous month (see **Figure 2.1**).

Figure 2.1: Consumer Price Inflation

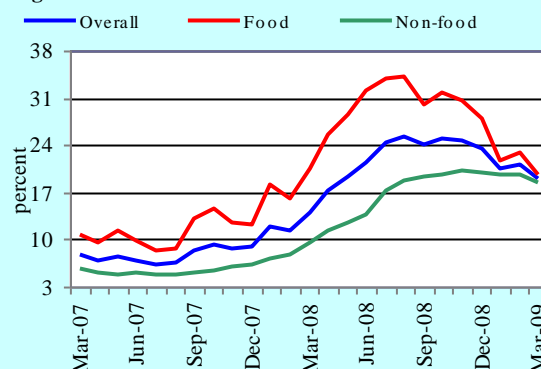
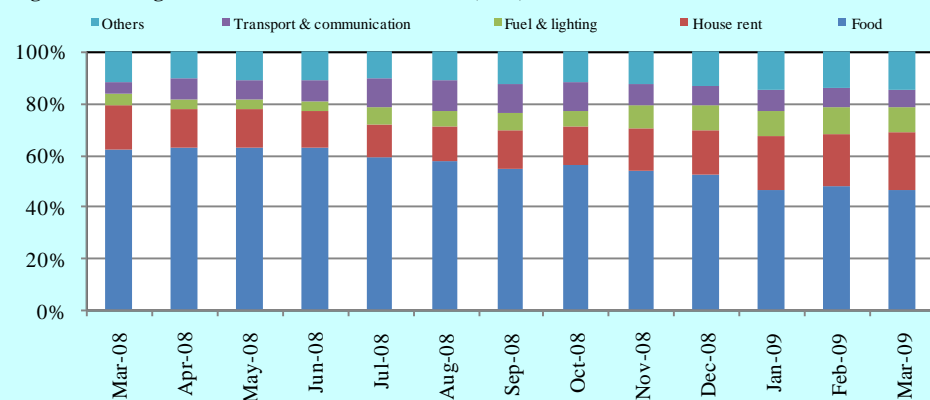


Figure 2.2: Weighted Contribution to CPI Inflation (YoY)



The contribution of food group in overall CPI inflation was 46.1 percent during March 2009, lower than 61.6 percent during the corresponding month last year. This contribution is also lower as compared to 47.6 percent seen in February 2009. As a mirror image, the contribution of non-food group in overall CPI inflation increased to 53.9 percent compared to 38.4 percent in March 2008. Within non-food group, the *house rent index* sub-group (HRI) witnessed an increase in its weighted contribution compared to the corresponding and previous months (see **Figure 2.2**).

2.1 Food Inflation

Food inflation (YoY) decelerated in March 2009, reaching 19.7 percent (the lowest level since February 2008); driven mainly by decline in prices of vegetables, ghee, pulse moong, etc. (see **Figure 2.3**).

In terms of percentage contribution to overall CPI inflation (YoY), wheat flour, fresh milk and onions were the second, third and fourth highest contributors with 13.4 percent, 7.0 percent and 6.6 percent share in overall CPI inflation; the house rent index of non-food group being the first (see **Table A3** in the annexure).

Of the total 124 commodities (107 being reported) in the food group, 72 commodities including wheat, wheat flour, eggs, sugar, some fruits and pulses, different types of rice etc. exhibited price changes (YoY) in the range of 10 to 90 percent during March 2009. Two commodities of food group witnessed more than 100 percent price change (YoY), including coffee (108.3 percent) and onions (315.8 percent). On the other hand, price change (YoY) of 17 commodities i.e. cooking oil, green chilies, tomatoes, etc. declined during the month under review (only one item-chocolate candy-showed no change). Remaining 16 items showed moderate price change (YoY) (see **Figure 2.4a** and **Table A2** in **Annexure A**).

Food inflation on month-on-month (MoM) basis was recorded at 2.2 percent compared to 0.6 percent during February 2009 and 4.9 percent in March 2008. A detailed analysis of CPI food basket on MoM basis showed that 6 items including onions, green chilies, kinnow, carrot and malta, recorded a double digit price change during March 2009, whereas prices of 34 items including cucumber, pulse gram,

Figure 2.3: CPI Food Inflation

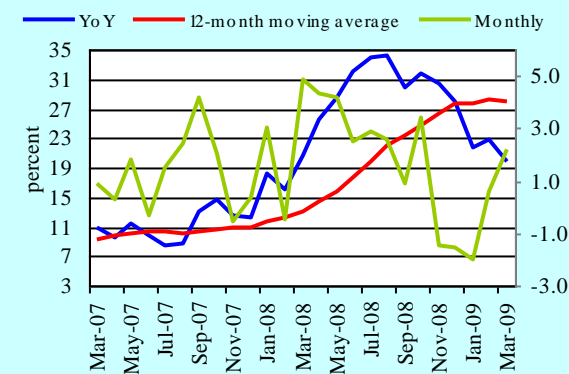
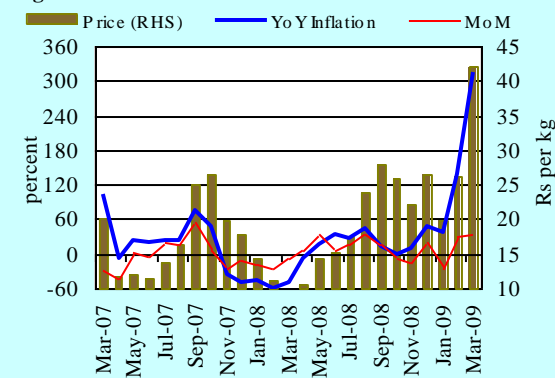
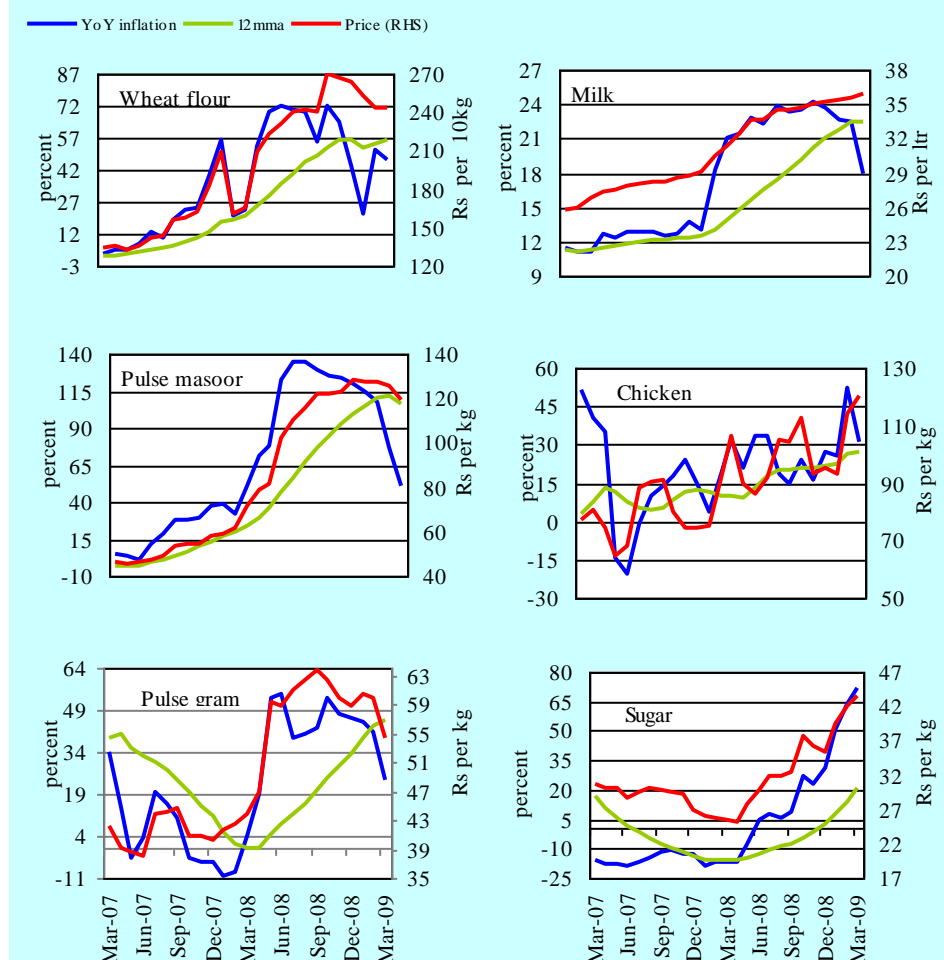


Figure 2.4: Price trends in Onion



vegetable ghee, eggs, rice, pulse masoor, cooking oil, etc. declined. Similar to the previous month, onions recorded the highest price change (60.1 percent) on MoM basis during March 2009 (see **Figure 2.4a**).

Figure 2.4a: Price Trends in Key Food Items



Out of 40 composite food items in the CPI basket, further disaggregation can be made on the basis of perishable and non-perishable items. Only five of these composite items, potatoes, onions, tomatoes, vegetables and fresh fruits, are included in perishable group with a total weight of 5.14 percent in overall CPI basket. The remaining 35 composite items, having weight of 35.0 percent, are in the non-perishable group. Inflation (YoY) recorded in the perishable group was 14.1 percent during March 2009, compared to 15.8 percent in the same month last

year. Prices of perishable group are often volatile and this is seen in the inflation (MoM) which reached 17.2 percent during March 2009 compared to 1.3 percent in February 2009. Inflation (YoY) in non-perishable group also decreased from 21.4 percent during the month of March 2008 to 20.6 percent in month under review. MoM inflation in non-perishable group decreased from 0.5 percent in February 2009 to 0.2 percent in March 2009 (see **Fig 2.5 & 2.6**).

Figure 2.5: Non-perishable & perishable food items Inflation (YoY)

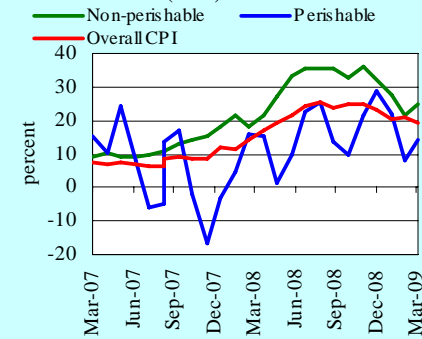
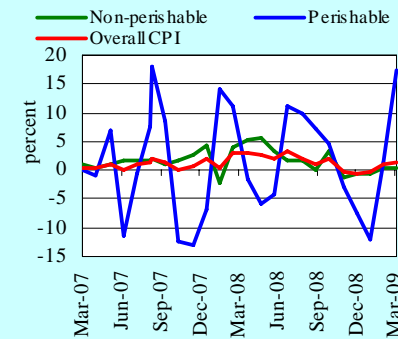


Figure 2.6: Non-perishable & perishable food items Inflation (MoM)



2.2 Non-food Inflation

Non-food inflation (YoY) decreased from 19.6 percent during February 2009 to 18.5 percent in the month of March 2009, however it is still high compare to March 2008 (see **Figure 2.7**). Within non-food group, inflation (YoY) in all sub-groups declined during the month under review compared to the previous month, except *house rent index* and *education*.

Figure 2.7: CPI Non-food Inflation

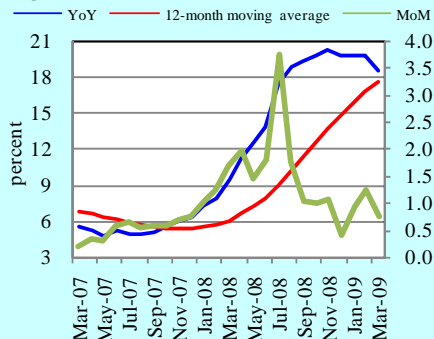
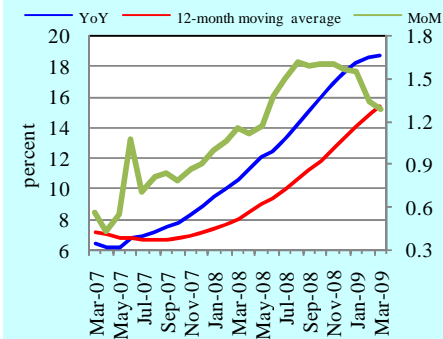


Figure 2.8: House Rent Inflation



Inflation (YoY) in *house rent index*, continued to rise during March 2009, and was recorded at 18.7 percent during the month under review compared to 18.5 percent in February 2009 and 10.6 percent in the corresponding month last year (see **Figure 2.8**).

Fuel & lighting sub-group witnessed inflation (YoY) of 26.7 percent in March 2009 compared to 29.8 percent during February 2009, and 8.5 percent in the same month last year. Out of 15 items included in this sub-group, 11 items showed double digit YoY price change during the month under review. In particular kerosene oil, gas charges for the upper two groups (3.3719 - 6.7438 mmbtu and 6.7438 - 10.1157 mmbtu), electric charges above 1000 units, 301 to 1000 units and gas cylinder charges recorded increase in prices during the month under review.

Inflation (YoY) in *transport & communication* sub-group was recorded at 17.8 percent during March 2009, compared to 21.5 percent in the previous month and 8.7 percent in the corresponding month last year. However inflation (MoM) in this sub-group showed no change compared to February 2009.

Other indices of non-food group including *apparel, textile & footwear, household furniture & equipment, recreation & entertainment, cleaning, laundry & personal appearance, education and medicare* sub-groups recorded higher inflation (YoY) during March 2009 compared to the same month last year (see **Figure A1** in Annexure).

Of the 250 commodities included in CPI basket, prices of eight items declined, 21 showed no change, 19 showed price change between 0 to 5 percent, 33 moved between 5 to 10 percent and 169 commodities showed price change of more than 10 percent. As in the previous month, the commodities which showed significant YoY price change included UMS charges (102.9 percent), match box (100.0 percent), train fare¹ (95.3 percent) etc. (See **Table A2 & A4** in the Annexure). On MoM basis, prices of 9 items showed decline, 116 items exhibit no change in their prices, 52 items recorded price change from 0 to 0.5 percent, price changes for 36 items ranged between 0.5 to 1.0 percent, and the remaining 39 items showed more than 1 percent change. However two commodities including Bryl cream (29.1 percent) and philips tubelight (10.3 percent) saw double digit price change.

¹ A/C sleeper 101-500 km

2.3 City-wise Inflation

Inflation (YoY) in major cities declined during March 2009, compared to February 2009, but it remained higher than the level recorded in these cities during the same month last year. Inflation in Quetta, Peshawar and Karachi was recorded

above the headline inflation during March 2009 (see **Table 2.1**). Importantly, MoM inflation in all major cities was lower than the average CPI inflation during March 2009, indicating that ease in inflationary pressures is more pronounced in federal and provincial capitals.

Table 2.1: City-wise Inflation of Selected Cities						percent
	Mar-08		Feb-09		Mar-09	
	MoM	YoY	MoM	YoY	MoM	YoY
Over all CPI	3.1	14.1	1.0	21.1	1.4	19.1
Islamabad	2.1	11.6	1.2	18.4	0.9	17.0
Lahore	1.8	12.0	0.9	18.1	1.3	17.5
Karachi	3.4	13.3	1.3	22.2	1.1	19.4
Quetta	3.4	13.8	0.4	25.1	1.2	22.5
Peshawar	3.9	15.8	0.5	23.9	1.3	20.7

City-wise inflation (YoY) indicates that 18 cities were in the category of high inflation cities, while remaining 17 cities were categorized in low inflation cities during the month under review. The highest inflation (YoY) was recorded in Nawabshah followed by Shahdadpur. Whereas the lowest inflation (YoY) was recorded in Bahawalpur (see **Table 2.2**). The highest inflation (MoM) was recorded in Kunri (2.5 percent), and the lowest inflation was recorded in Turbat ((-)1.9 percent) during March 2009.

Table 2.2: City-wise Inflation in CPI (YoY) March 2009

	High inflation cities				Low inflation cities		
	General	Food	Non-food		General	Food	Non-food
Nawabshah	24.1	27.4	21.6	Mianwali	18.8	18.6	19.0
Shahdadpur	23.9	27.1	21.4	Loralai	18.8	19.8	18.0
Mardan	22.8	23.2	22.5	Hyderabad	18.7	19.1	18.4
Khuzdar	22.5	26.1	19.8	Vehari	18.3	18.3	18.4
Okara	22.5	23.0	22.1	Rawalpindi	18.3	18.0	18.5
Quetta	22.5	27.8	18.3	Attock	18.2	19.2	17.5
D.I.Khan	22.3	26.0	19.4	Sialkot	17.7	16.9	18.4
Mirpur Khas	22.3	21.8	22.7	Jhang	17.5	16.6	18.2
Kunri	22.0	21.4	22.6	Lahore	17.5	17.6	17.3
Sukkur	21.1	23.3	19.4	Multan	17.3	17.7	17.0
Abbotabad	21.0	21.4	20.7	Faisalabad	17.0	14.2	19.4
Turbat	20.8	24.6	18.2	Islamabad	17.0	16.6	17.3
Peshawar	20.7	20.1	21.3	Jhelum	16.7	15.6	17.5
Larkana	20.5	21.4	19.7	Samundari	15.7	13.6	17.3
Sargodha	20.3	22.9	18.2	Bahawalnagar	15.4	15.8	15.1
Bannu	20.1	22.4	18.3	Gujranwala	15.1	12.7	17.0
Karachi	19.4	19.2	19.6	Bahawalpur	14.3	12.4	16.0
D.G. Khan	19.4	17.7	20.8				

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 reveals that all income groups, except for the highest income group, experienced higher than average CPI inflation (YoY). Inflation on MoM basis during March 2009, for the highest income group remained lower than the overall CPI inflation (MoM) (see **Table 2.3**).

Table 2.3: Income Group-wise CPI Inflation				percent
	Mar-08		Mar-09	
	MoM	YoY	MoM	YoY
Over all CPI	3.1	14.1	1.4	19.1
Income Groups				
Upto 3000	3.5	17.0	1.5	19.4
Rs.3001-5000	3.7	16.6	1.5	19.6
Rs.5001-12000	3.2	14.9	1.4	19.9
Above Rs.12000	2.9	12.8	1.3	18.0

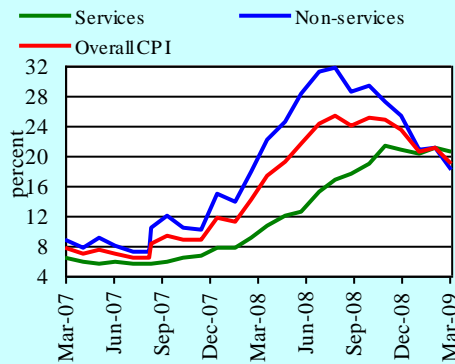
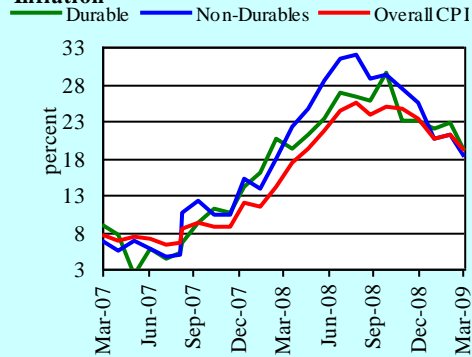
City and income group wise data, collected from 17 cities, showed that Quetta (25.2 percent) recorded the highest inflation for all income groups and Bahawalpur (12.4 percent) experienced the lowest inflation for all income groups during March 2009 (see **Table A5** in Annexure A).

2.5 Services and Non-services Inflation

Within the overall basket of consumer price index, items related to services² and non-services sectors during March 2009 though high compared to the same month last year, were low relative to the levels in February 2009. Inflation (YoY) in services sector was recorded at 20.5 percent compared to 9.1 percent during the same month last year and 21.0 percent in the previous month. Following the YoY inflation trend, MoM inflation decreased from 1.4 percent during February 2009 to 0.8 percent in March 2009.

Inflation (YoY) in non-services sector was recorded at 18.1 percent in the month under review, closed to 18.0 percent in the corresponding month last year but lower than 21.2 percent for February 2009. Inflation (MoM) in this sector increased to 1.8 percent during March 2009 from 0.7 percent during February 2009 (see **Figure 2.9**).

² 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**

Further breakup of non-services group into durable³ and non-durable, show that inflation (YoY) in durable items was recorded at 18.8 percent in March 2009, compared to 20.6 percent in the same month last year. Inflation (MoM) reached 1.3 percent in March 2009, compared to 4.7 percent during March 2008 and 3.3 percent during February 2009. On the other hand, inflation (YoY) for non-durable goods was recorded at 18.0 percent during the month under review compared to 17.9 percent in the same month last year. Inflation (MoM) in this sub-sector was recorded at 1.8 percent during March 2009 compared to 0.6 percent in the previous month (see **Figure 2.10**).

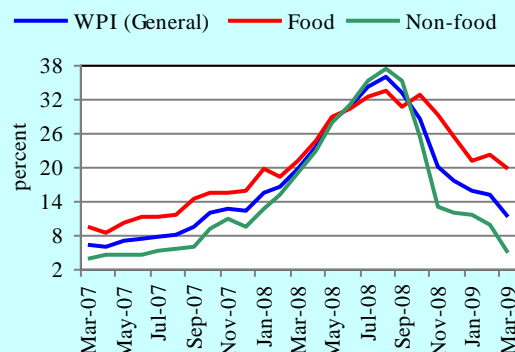
³ Durable items include suitcase, furniture, electric iron, fans, washing machines, sewing machines, clocks, needles, refrigerators, air conditioners, vehicles, computer & allied products, watches and jewelry, etc.

3. Wholesale Price Index

Wholesale price index (WPI) inflation (YoY) continued with the declining trend observed since September 2008. It reached 11.1 percent during March 2009 compared to 19.8 percent during the same month last year. Though both food and non-food groups of WPI contributed in this downtrend, the contribution of WPI non-food group was more significant. WPI non-food

inflation (YoY) was recorded at 4.8 percent during March 2009 (the lowest level since July 2007) compared to 18.9 percent in the same month last year. Similarly, WPI food group inflation also decelerated during the month under review and was recorded at 19.5 percent compared to 21.0 percent during March 2008 (see **Figure 3.1**).

Figure 3.1: Wholesale Price Inflation



In terms of weighted contribution to overall WPI inflation, WPI food group registered increase in its contribution reaching 74.9 percent in March 2009, compared to 44.7 percent during the same month last year (see **Figure 3.2**). Food items recording substantial YoY price increase during the month under review included onions, sugar, gur, condiments, pulse masoor, wheat flour, etc. In particular onions registered a YoY growth of 350.1 percent during the month under review. In contrast, six food items showed negative price change including vegetable ghee, tomatoes, vegetables; cotton seed oil, mustard & rapeseed oil and pulse moong (see **Table A7** & **Figure 3.3**).

Figure 3.2: Weighted Contributions in WPI

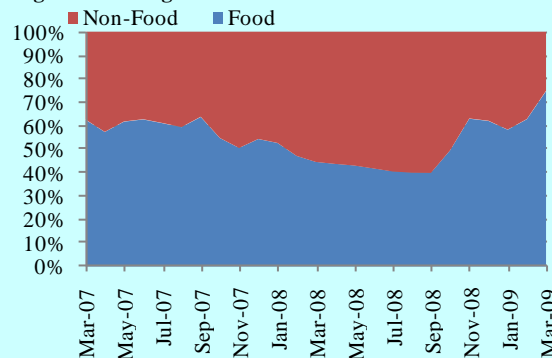
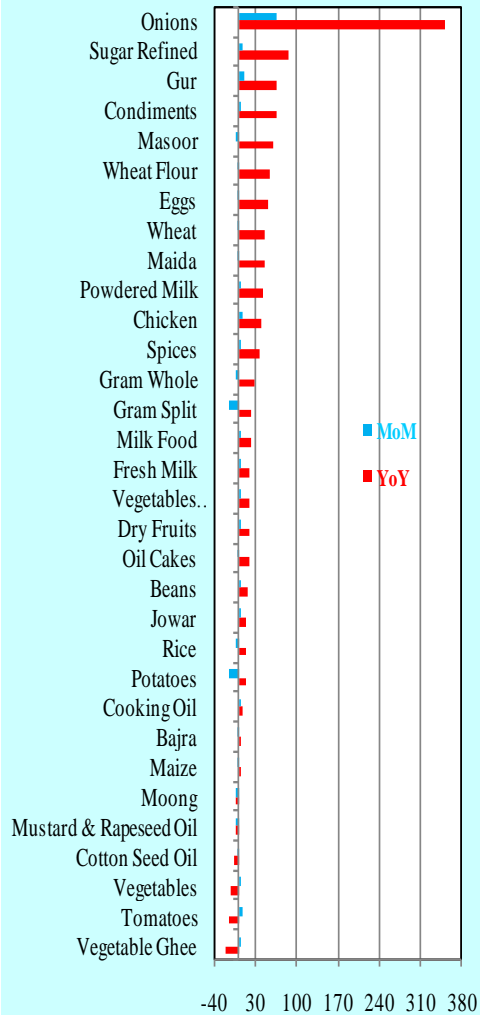
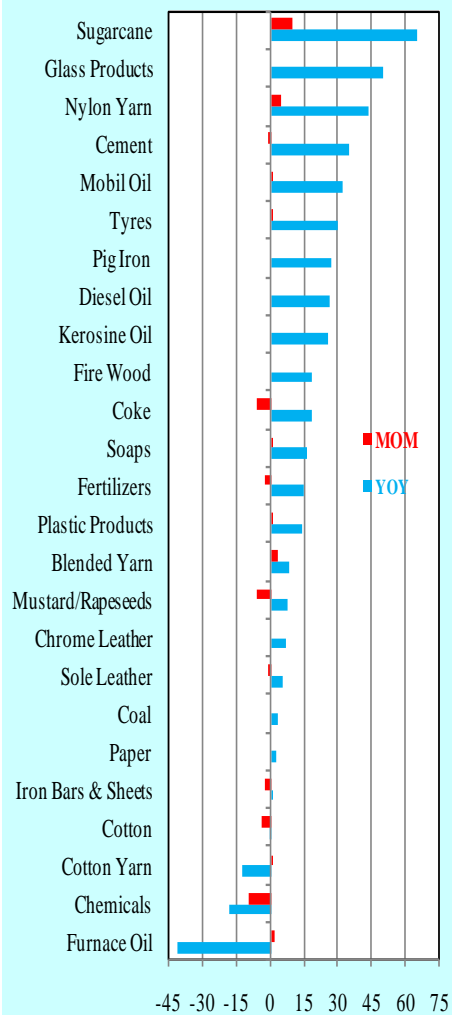
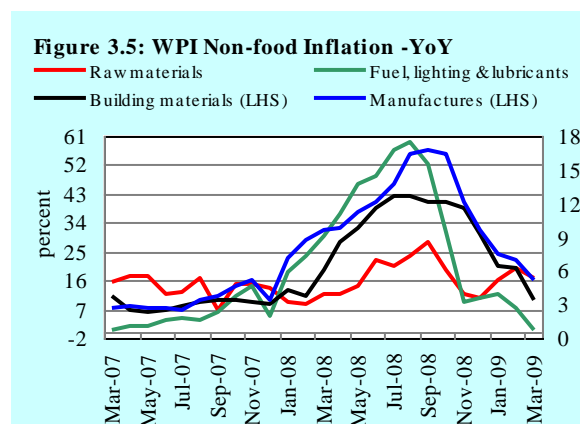


Figure 3.3: Changes in Wholesale Prices of Selected Food Items (March 2009)**Figure 3.4: Changes in Wholesale Prices of Selected Non-food Items (March 2009)**

Among the items included in WPI non-food group, more than 55 percent registered double digit YoY price increase during the month under review. In particular, items like sugarcane, glass products, nylon yarn and cement blocks registered more than 40 percent rise in prices (see **Table A7** and **Figure 3.4**). On the other hand, the prices of nine non-food items, including furnace oil, chemicals, and cotton yarn, etc. either declined or showed no change during the month under review.

Within WPI non-food group, all sub-indices, except the *raw material* sub-index, recorded lower inflation (YoY) during March 2009, as compared to the same month last year (see **Figure 3.5**). *Raw material* sub-group inflation (YoY) reached 16.5 percent during the month under review compared to 11.7 percent during the same month last year. Within the *raw material* sub-index, prices of all items except cotton, witnessed positive YoY increase during the month under review with items like cotton seeds, tobacco, pig iron and sugarcane recording more than 20 percent rise.



In terms of weighted contribution of sub-indices to non-food inflation the *fuel, lighting & lubricant* witnessed a significant decrease, as it dropped to 3.9 percent in March 2009, compared to 31.8 percent in the previous month

Table 3.1: Contribution of Sub-Indices to WPI Non-food Inflation

	Mar-08	Jun-08	Feb-09	Mar-09
Raw materials	8.3	9.5	26.2	43.1
Fuel, lighting & lubricants	63.9	65.8	31.8	3.9
Manufactures	18.7	14.2	24.5	35.6
Building materials	9.0	10.5	17.6	17.5

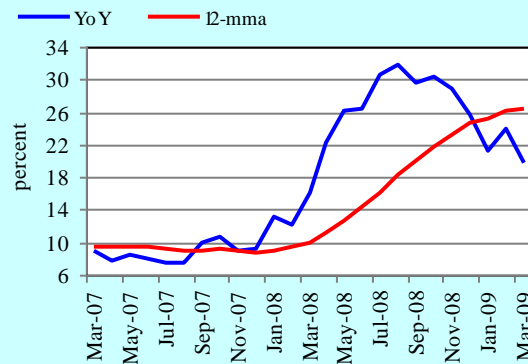
(**Table 3.1**). On the other hand, the weighted contribution of raw material sub-index has increased significantly during the same month. Lower contribution of *fuel, lighting & lubricant* sub-index (having 33 percent weight in non-food group of WPI) and higher contribution of raw material sub-index (having 14 percent weight in non-food group of WPI) implies that overall WPI non-food inflation was subdued due to decline or negligible rise in the prices of the items with higher weights.

An item-wise analysis of YoY price changes of WPI non-food group is presented in **Table A7** in the Annexure.

4. Sensitive Price Indicator

Inflation measured by the sensitive price indicator (SPI) declined on YoY basis reaching 19.8 percent during March 2009, compared to 23.9 percent in the previous month; though higher compared to the same month last year. The long-run trend in SPI, indicated by the 12-month moving average, continued with its uptrend to reach 26.3 percent during the month under review (see **Figure 4.1**).

Figure 4.1: SPI Inflation (YoY)



An item-wise analysis of the SPI basket reveals that more than 65 percent of the items registered double digit YoY increase in prices. Items that showed significant YoY price increase during the month under review include onions (254.2 percent), sugar (72.3 percent), gur (56.8 percent), and pulse masoor (47.5 percent). On the other hand, 11 items recorded YoY decline in their prices, including electricity and gas charges, tomatoes, vegetable ghee, and pulse moong ,etc. (See **Table A8** in Annexure A)

On MoM basis SPI witnessed positive increase for the second consecutive month during March 2009. Major items contributing to growth in SPI inflation during March 2009 include onions, bananas; chicken and sugar (see **Table A8** in Annexure A). However, inflation (MoM) recorded in March 2009, is lower compared to February 2009.

Figure 4.2: Weekly SPI Inflation



Weekly SPI witnessed decrease in YoY inflation throughout March 2009, and fluctuated within the range of 18.0 percent to 21.4 percent (see **Figure 4.2**).

Analysis of SPI inflation (YoY) on income group-wise basis reveals that the incidence of inflation (YoY) remained highest for the middle income group having monthly income of Rs. 5000 to 12000 (see **Table 4.2**).

Table 4.2 : Income Group-wise SPI Inflation (YoY)				
				percent
	Mar-08	Jun-08	Feb-09	Mar-09
Up to Rs. 3000	18.6	30.0	23.4	20.1
Rs. 3001-5000	17.9	29.2	24.1	20.7
Rs. 5000-12000	16.9	27.0	25.0	21.5
Above Rs. 12000	14.6	23.5	23.6	19.3
All income groups	16.2	26.3	23.9	19.8

5. Global Commodity Prices

International commodity price movements showed mixed behavior in March 2009, on MoM basis. After declining sharply in February 2009, the price indices of fuel, food and metals moved up a little during March 2009. The current rise in these indices was the result of a number of factors including: (a) expectations that the U.S.

economy will spur demand for raw materials following the Federal Reserve's steps to revive the economy; and (b) weakness in dollar as the greenback tumbled against a basket of six major currencies on plans by the Federal Reserve to buy more than US\$ 1 trillion in Treasuries and mortgage debt to help end the recession and credit crisis.

Table 5.1: Commodity Price Indices (March 2009)

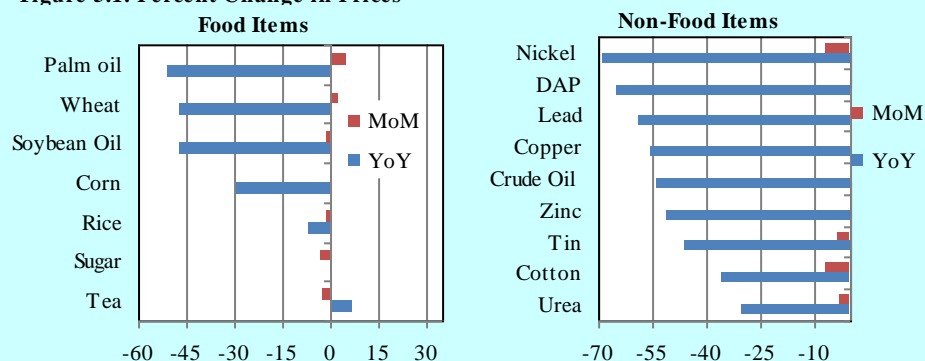
	Percentage Change Over	
	Previous Year	Previous Month
All Commodities	-44.8	2.2
Non-Fuel	-34.5	-0.8
Food Price	-27.7	0.1
Industrial Inputs	-42.9	-1.3
Agriculture	-30.2	-7.9
Metals	-48.2	2.8
Fuel	-50.2	4.4

Source: IMF

However, due to ongoing global recession and sluggish activity in the manufacturing sector, the industrial input price index witnessed a MoM fall during March 2009. Similarly, the agriculture price index also fell during the month under review due to increased stocks as a result of bumper crops and subdued demand (see **Table 5.1**).

The MoM increase in international commodity price index was principally contributed by rise in metals prices, which increased by 2.8 percent, with gains of 13 percent in lead and copper, and 9 percent in zinc prices. The current rally in metal prices is the result of purchases by China in an effort to support domestic lead and zinc producers, and for strategic stocking of copper. Moreover, the copper scrap market is very tight from a reduction of new scrap availability and

Figure 5.1: Percent Change in Prices



reluctance of suppliers to gather and sell old material.

In contrast, cotton prices fell in March 2009, on expected drop in its demand amid global recession (see **Figure 5.1**). According to a recent report by U.S. Prospective Plantings, the cotton plantings showed a fall of 2.8 percent reflecting the impact of sharply lower prices and still high input costs.

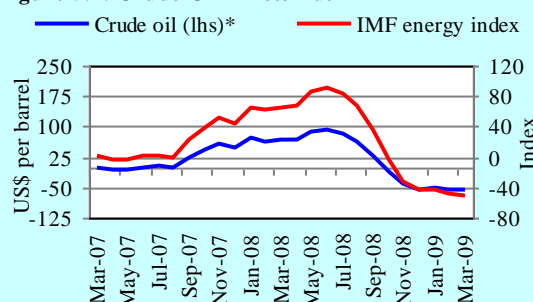
A detailed picture of fuel (energy) group depicts that average crude oil⁴ prices surged, as the Organization of Petroleum Exporting Countries (OPEC) output curbs started impacting the oil inventories as well as arresting further slide in prices. The other factors that assisted acceleration in crude oil prices during the month under review include: (a) decline in crude oil stocks in U.S. and (b) expectations that OPEC will further reduce output.

Current rise in crude oil prices was also reflected in IMF energy index that increased by 4.4 percent over the previous month (see **Figure 5.2**).

In case of major food items, the price movements showed mixed trend. Prices of wheat, corn and palm oil gained, whereas prices of sugar, soybean oil and rice declined in March 2009, over the preceding month (see **Figure 5.1** and **Figure 5.3**). In particular, wheat prices jumped in international market on speculation that weakness in dollar may spur demand for grain from the U.S., the world's largest exporter of the grain.

Palm oil prices gained during the month under review mainly supported by an unexpected drop in end-February palm oil stocks. Palm oil stockpiles in Malaysia

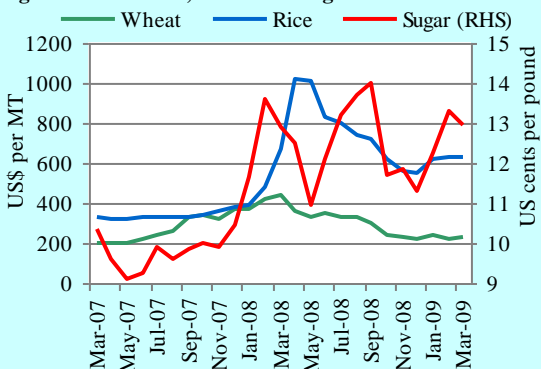
Figure 5.2: Crude Oil Price/Index



Source: IMF

*Simple average of Brent, WTI and Dubai Fateh

Figure 5.3: Wheat, Rice and Sugar Prices



⁴ Simple average of Brent, WTI and Dubai Fateh.

declined 15 percent in February 2009 from a month earlier to its lowest level in 16 months.⁵

Sugar prices fell during March 2009, due to; (a) lower energy costs signaled less demand for ethanol made from cane in Brazil, the world's biggest producer; and (b) on speculation that demand for the sweetener will slow after prices reached the highest levels recently.

Rice prices declined on MoM basis due to ample supplies of the grain. Analysts are of the view that price of rice may rise in coming months as Egypt has decided to extend ban on rice exports up to October 2009, which was originally planned up to April 2009 to ensure domestic supplies.

⁵ www.bloomberg.com

Annexure A

Table A1: CPI Inflation (YoY) by Groups						
	Weights	Mar-05	Mar-06	Mar-07	Mar-08	Mar-09
I. Food Group	40.3	13.3	5.4	10.7	20.6	19.7
II. Non-Food Group	59.7	8.2	8.0	5.5	9.4	18.5
Apparel, textile, etc.	6.1	3.4	4.2	7.3	6.9	13.6
House rent	23.4	12.3	8.7	6.4	10.6	18.7
Fuel & lighting	7.3	6.0	9.5	7.0	8.5	26.7
Household furniture & equipment	3.3	5.7	4.6	7.4	7.0	14.2
Transport & communication	7.3	10.6	14.3	-1.4	8.7	17.8
Recreation & entertainment	0.8	0.1	-0.2	-0.2	0.9	13.9
Education	3.5	2.5	7.0	7.9	3.5	18.4
Cleaning, laundry, etc.	5.9	4.8	2.9	4.8	15.9	16.4
Medicare	2.1	1.0	3.1	10.8	6.5	14.2
Headline	100	10.2	6.9	7.7	14.1	19.1

Table A2: Distribution of Price Changes of CPI Basket, March 2009 (YoY)						
Groups	% Changes	Total Number of Items	No. of Items in each Inflation Range			
			Decrease or no change	Subdued increase	Moderate increase	Double digit increase (over 10%)
			(0 % or less)	(0 to 5%)	(5 to 10%)	
I. Food Group	19.7	107	17	5	11	74
II. Non-Food Group	18.5	250	29	19	33	169
Apparel, textile, etc.	13.6	42	1		13	28
House rent	18.7	1				1
Fuel & lighting	26.7	15	3		1	11
Household furniture & equipt	14.2	44		1	6	37
Transport & communication	17.8	43	5	1	1	36
Recreation & entertainment	13.9	16	1	7	2	6
Education	18.4	24	3	3	1	17
Cleaning, laundry, etc.	16.4	36	3	3	6	24
Medicines	14.2	29	13	4	3	9
Overall	19.1	357				

Note: Prices of 17 seasonal items were not reported during the month.

Table A3: Top Ten Contribution to YoY CPI Inflation in March 2009

Items	Weights	YoY change		Weighted Contribution	
		Mar-08	Mar-09		
A. Ranked by Weighted Contribution					
1	House Rent Index	23.43	10.60	18.69	22.21
2	Wheat Flour	5.11	27.17	45.93	13.4
3	Milk Fresh	6.66	18.10	17.96	6.96
4	Onions	0.65	-49.55	315.77	6.57
5	Transport Fare/Charges	2.12	4.26	41.19	5.02
6	Electricity	4.37	6.44	25.58	4.56
7	Sugar	1.95	-16.86	71.58	4.14
8	Natural Gas	2.05	7.06	27.74	4.04
9	Meat	2.70	5.94	16.16	3.17
10	Readymade Food	1.68	18.43	22.02	2.18
Total		50.72			72.25
B. Ranked by Percentage Change					
1	Onions	0.65	-49.55	315.77	6.57
2	Match Box	0.13	0.00	100.00	0.42
3	Sugar	1.95	-16.86	71.58	4.14
4	Gur	0.07	-17.44	55.02	0.15
5	Pulse Masoor	0.22	70.82	50.99	0.79
6	Condiments	0.34	40.63	49.26	0.87
7	Train Fare	0.15	0.00	48.96	0.40
8	Eggs	0.41	-11.38	47.53	0.95
9	Wheat Flour	5.11	27.17	45.93	13.40
10	Transport Fare/Charges	2.12	4.26	41.19	5.02
		11.16			32.70
C. Ranked by Weights					
1	House Rent Index	23.43	10.60	18.69	22.21
2	Milk Fresh	6.66	18.10	17.96	6.96
3	Wheat Flour	5.11	27.17	45.93	13.40
4	Electricity	4.37	6.44	25.58	4.56
5	Bakery & Confectionary	2.98	8.75	12.12	1.49
6	Meat	2.70	5.94	16.16	3.17
7	Vegetable Ghee	2.67	71.69	-18.38	-4.16
8	Tution Fees	2.36	3.30	13.86	1.53
9	Transport Fare/Charges	2.12	4.26	41.19	5.02
10	Natural Gas	2.05	7.06	27.74	4.04
		54.45			58.23

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 19.1 percent in March 2009.

Table A4: Distribution of Price Changes (YoY)- Selected CPI Items, March 2009

Groups	Decrease or no change	Subdued increase (upto 5%)	Moderate increase (5 to 10%)	Increase of over 10%
Food Group	Vegetable Ghee (Loose), Vegetable Ghee Tin, Chocolate Candy (Small Size), Cooking Oil (Dalda), Tomatoes, Pulse Moong (Washed), Cauliflower, Peas Chilies Green	Toffee (Hilal), Apple, Cold Drink (Standard Size), Biscuits- Packed, Carrot	Potatoes, Pulse Mash (Washed), Jam Ahmed/Mitchelles, Rooh Afza, Squash- Mitchelles, Fruit Juice Tetra Pack, Pepper Black National, Milk Powder Loose/Packed	Milk Fresh (Unboiled), Wheat Flour Bag, Sugar Refined, Beef With Bone Av.Qlty, Wheat Flour Fine/Superior. Mutton Av.Qlty, Chicken Farm, Onions.
Apparel & Textile	Gents Sandal Bata		School Uniform. Kameez, Shalwar, Girl, Tailoring Coat-Pant Suit, Gents Shoe	Lawn Av.Qlty. Shirting Av.Qlty.
House Rent Index				House Rent Index
Fuel & Lighting	Gas Charges Upto 3.3719 Mmbtu, Gas Chrg 3.3719 - 6.7438 Mmb, Elect. Charges Upto 50 Units		Elect. Charges 01 - 100 Unit	Elect. Charges Above 1000 Units, Elect. Charges 301 - 1000 Units, Kerosene Oil, Match Box Small
Household Furniture & Equipment		Carpet Plain Av. Qlty	Household Servant Female, Blanket (90" X 54"), Tea-Set S..Steel	Quilt (Lihaf) 3 Kg. Cotton, Tea Set Pak. Chinaware 21 Pc, Washing Machine Singer
Transport & Communication.	Petrol Super, Car Tax For 800Cc To 1300Cc, Platform Ticket, Postal Envelope Domestic	Telephone Charges Local Call	Tel Charges Out Side City	A/C Bus Fare Outside City, High Speed Diesel, Train Fare 1st Slp. > 500 Km, U.M.S. Reg Charges Min.
Recreation & Entertainment	TV. License fee domestic	V.C.P. Weekly "Akhbar-E-Jahan", Tape Recorder.	Cinema Non-A/C High Class, T.V. 20" Colored.	Daily "Dawn", Dry Cell 1.5 Volt(Local), Daily "Jang"
Education	Govt. College Fee Ist. Year, Govt. College Fee 4th. Year	Govt. Engineering. College Fee I Year Comp. With Printer & Speaker, Govt. University Fee M.Sc.	Urdu Book Class V	School Fee Secondary English .Medium, School Fee Primary English .Medium, Maths Book Class IX Or X
Cleaning & Laundry	Silver Tezabi 24 Ct Toothpaste Toothpowder Dentonic 90 Grams	Lipstick S.Miss/Medora, Toilet Paper Roll	Beauty Parlor Hair Style Charge, Wrist Watch Ladies Citizen, Wrist Watch Gents Citizen, Blade Treet Ordinary 10'S	Bryl Cream, Haircut Charges For Men, Washing Soap, Toilet Soap Lux 95 Grams, Shampoo Plain Medora 200 ml
Medicare	Ventolin Tablet., Entox Tablet. Amoxil Capsule	Daonil Tablet Septran Tablets Panadol Tab. Extra/Plain	Brufen Tablet, Galxose-D , O.R.S	Doctor (MBBS) Clinic Fee, Cotton Bandage 2" - 4", Gripe-Water Woodward's

Table A5: City-wise Inflation (YoY) by Income Groups, March 2009

		Upto Rs:3000			Rs 3001-5000		
		General	Food	Non-Food	General	Food	Non-Food
1	Lahore	17.5	18.0	17.0	17.8	17.8	17.8
2	Faisalabad	17.3	15.6	18.7	17.8	15.5	19.6
3	Rawalpindi	18.7	19.5	18.1	18.7	18.5	18.9
4	Multan	16.8	17.8	16.1	16.8	17.2	16.6
5	Gujranwala	13.8	12.2	15.2	14.7	12.5	16.5
6	Islamabad	17.6	16.8	18.2	17.0	16.9	17.1
7	Sargodha	18.5	21.7	16.2	19.8	23.2	17.2
8	Sialkot	16.7	17.4	16.2	17.1	16.5	17.6
9	Bahawalpur	12.3	11.3	13.0	13.8	12.5	14.9
10	Karachi	19.4	18.9	19.9	20.1	19.4	20.6
11	Hyderabad	18.4	19.9	17.3	17.6	18.0	17.2
12	Sukkur	20.9	24.2	18.2	21.3	25.0	18.5
13	Larkana	20.3	22.6	18.4	19.1	19.8	18.6
14	Peshawar	19.0	19.6	18.5	20.0	20.0	20.0
15	Bannu	19.8	22.2	18.0	20.2	22.7	18.3
16	Quetta	25.2	31.8	19.9	22.4	28.3	17.8
17	Khuacdar	18.8	20.9	17.2	19.5	20.8	18.5
		Rs 5001-12000			Above Rs 12000		
		General	Food	Non-Food	General	Food	Non-Food
1	Lahore	18.3	17.9	18.6	16.6	17.2	16.1
2	Faisalabad	17.6	14.5	20.2	16.5	13.7	18.9
3	Rawalpindi	19.1	18.1	19.9	17.5	17.7	17.3
4	Multan	17.8	17.6	17.9	16.9	18.2	15.9
5	Gujranwala	15.3	12.6	17.6	14.8	13.0	16.2
6	Islamabad	18.3	16.6	19.7	16.7	16.6	16.9
7	Sargodha	21.0	23.4	19.1	19.0	21.4	16.9
8	Sialkot	18.0	16.8	19.0	17.5	17.0	17.9
9	Bahawalpur	14.7	12.6	16.5	14.7	12.3	16.8
10	Karachi	20.5	19.5	21.2	18.4	18.7	18.1
11	Hyderabad	18.9	18.9	18.8	18.6	19.9	17.5
12	Sukkur	21.3	23.3	19.7	20.4	21.8	19.4
13	Larkana	20.5	21.4	19.8	21.0	22.2	20.0
14	Peshawar	21.3	20.2	22.2	20.4	20.0	20.7
15	Bannu	20.0	22.4	18.1	20.1	22.0	18.6
16	Quetta	23.6	29.0	19.3	21.2	26.2	17.2
17	Khuacdar	20.0	21.9	18.5	19.3	21.3	17.7

Table A6 : Income Group-wise Inflation						percent
	MoM			YoY		
	Mar-08	Feb-09	Mar-09	Mar-08	Feb-09	Mar-09
<u>Up to Rs. 3000</u>						
General	0.3	-0.3	3.5	17.0	21.7	19.4
Food	0.1	-1.5	4.7	22.5	23.7	20.7
Non-food	0.4	0.7	2.5	13.0	20.1	18.4
<u>Rs. 3001-5000</u>						
General	0.4	-0.3	3.7	16.6	22.2	19.6
Food	0.4	-1.5	5.0	22.6	23.6	20.2
Non-food	0.5	0.7	2.6	12.4	21.1	19.2
<u>Rs. 5000-12000</u>						
General	0.5	0.1	3.2	14.9	22.0	19.9
Food	0.7	-0.9	4.9	21.3	23.3	20.0
Non-food	0.4	0.9	1.8	10.2	21.1	19.9
<u>Above Rs. 12000</u>						
General	0.5	1.1	2.9	12.8	19.8	18.0
Food	1.4	0.5	4.8	18.8	22.1	19.2
Non-food	-0.2	1.6	1.4	8.2	18.1	17.1
<u>All income groups</u>						
General	0.5	0.5	3.1	14.1	21.1	19.1
Food	0.9	-0.5	4.9	20.6	22.9	19.7
Non-food	0.2	1.2	1.7	9.4	19.6	18.5

Table A7: Distribution of Price Change (YoY) - WPI Items: March 2009

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

Table A8: SPI Item-wise Price Movements					
S.No	Items	Unit	Price Mar 09	Percentage change	
				YoY	Monthly
1	Wheat	Kg.	24.5	43.4	-0.7
2	Wheat flour average quality.	Kg.	25.2	42.5	-0.2
3	Rice Basmati. broken	Kg.	44.9	12.7	-2.4
4	Rice irri-6	Kg.	36.6	28.7	-1.3
5	Masur pulse washed	Kg.	129.1	47.5	-5.6
6	Moong pulse washed	Kg.	48.2	-12.5	-2.5
7	Mash pulse washed	Kg.	75.9	5.1	-0.6
8	Gram pulse washed	Kg.	60.0	19.9	-10.1
9	Beef	Kg.	143.1	18.9	1.8
10	Mutton	Kg.	258.7	11.8	2.3
11	Egg hen (farm)	Doz.	58.0	44.7	2.2
12	Bread plain	Each	24.4	28.6	0.2
13	Sugar	Kg.	38.8	72.3	4.0
14	Gur	Kg.	42.6	56.8	1.1
15	Milk fresh	Liter	36.2	17.9	0.5
16	Milk powdered Nido	400g	170.0	17.2	0.0
17	Curd	Kg.	43.1	18.6	0.1
18	Vegetable ghee tin	2.5k	329.8	-8.9	0.0
19	Vegetable ghee loose	Kg.	100.0	-24.5	-1.2
20	Mustard oil	Kg.	142.5	-1.1	-1.7
21	Cooking oil	2.5l	351.5	-4.6	0.0
22	Potatoes	Kg.	16.0	6.8	-9.1
23	Onions	Kg.	21.9	254.2	28.6
24	Tomatoes	Kg.	23.5	-27.1	-4.3
25	Bananas	Doz.	34.7	11.5	7.6
26	Salt powdered	Kg.	6.1	19.7	2.1
27	Red chillies (powdered)	Kg.	135.8	-12.0	-0.8
28	Garlic	Kg.	43.4	-3.0	-4.6
29	Tea packet	250g	100.0	38.9	0.0
30	Tea (prepared)	Cup	8.5	20.8	0.8
continued					

Table A8 (continued)

S.No	Items	Unit	Price Mar 09	Percentage change	
				YoY	Monthly
31	Cooked beef plate	Each	40.4	20.6	1.4
32	Cooked Dal plate	Each	25.8	21.4	0.5
33	Cigarettes k-2	10's	8.9	13.5	3.5
34	Coarse latha	Mtr.	45.2	13.6	0.0
35	Lawn (average .quality)	Mtr.	89.9	7.7	0.6
36	Voil printed	Mtr.	45.5	13.6	1.5
37	Shirting	Mtr.	79.4	10.3	0.0
38	Sandel gents Bata	Pair	499.0	0.0	0.0
39	Sandel ladies Bata	Pair	379.0	26.8	0.0
40	Chappal. Bata	Pair	129.0	30.3	0.0
41	Kerosene	Litr	64.0	34.8	-0.6
42	Firewood	40kg	268.7	16.2	0.5
43	Elec. Bulb 60-wats	Each	14.5	19.7	3.5
44	Match box	Each	1.0	0.0	0.0
45	Washing soap	Cake	12.6	18.4	-0.7
46	Bath soap lifebuoy	Cake	22.0	16.3	0.0
47	Chicken (farm)	Kg.	92.5	28.0	4.5
48	Gas chrg. All clb. Comb	D.mmbt	273.7	-58.2	-65.8
49	L.P.G .(cylinder 11kg.)	Each	844.2	7.2	-7.1
50	Elec.chrg.all slabs comb	Bd. Unit	6.8	-37.1	-52.5
51	Petrol	Litr	58.3	-4.4	0.0
52	Diesel	Litr	57.7	34.8	0.0
53	Telephone local	Call	2.4	4.8	0.0
Maximum				254.2	28.6
Median				16.3	0.0
Minimum				-58.2	-65.8

Table A9: Consumer Price Index Numbers by Major Groups and Selected Commodities				
Item and Specification	Weights	Index		
		Mar-08	Feb-09	Mar-09
GENERAL	100.0005	163.38	191.90	194.53
FOOD & BEVERAGES.	40.3411	180.52	211.58	216.13
1 WHEAT	0.4830	199.63	285.59	281.84
2 WHEAT FLOUR	5.1122	177.72	260.43	259.35
3 MAIDA	0.1059	196.98	269.03	264.02
4 BESAN	0.1320	153.79	213.41	199.39
5 RICE	1.3369	237.15	287.18	279.14
6 PULSE MASOOR	0.2214	217.57	347.15	328.50
7 PULSE MOONG	0.2230	173.41	160.67	157.85
8 PULSE MASH	0.2017	156.57	167.87	166.39
9 PULSE GRAM	0.4272	151.12	206.18	186.99
10 GRAM WHOLE	0.1491	144.87	183.30	179.61
11 MUSTARD OIL	0.0456	253.51	257.68	248.90
12 COOKING OIL	0.6858	232.72	220.41	220.31
13 VEGETABLE GHEE	2.6672	264.09	216.94	215.55
14 SUGAR	1.9467	92.51	153.09	158.73
15 GUR	0.0735	115.24	176.46	178.64
16 TEA	1.2559	117.14	160.32	160.35
17 MILK FRESH	6.6615	181.13	211.32	213.66
18 MILK POWDER	0.1105	177.10	204.52	204.52
19 MILK PRODUCTS	0.5607	164.87	196.68	196.93
20 HONEY	0.0358	134.92	187.99	187.99
21 CEREALS	0.0878	168.56	229.50	229.27
22 JAM,TOMATO,PICKLES & VINEGAR	0.2472	143.37	163.83	165.53
23 BEVERAGES	0.7286	144.36	162.64	163.15
24 CONDIMENTS	0.3392	161.85	241.60	241.57
25 SPICES	0.6008	168.39	210.22	210.22
26 DRY FRUIT	0.2760	251.05	309.89	311.88
27 BAKERY & CONFECTIONARY	2.9837	128.33	143.67	143.89
28 CIGARETTES	0.9527	158.72	180.30	185.95
29 BETEL LEAVES & NUTS	0.1851	153.11	171.80	171.75
30 READYMADE FOOD	1.6833	182.89	220.07	223.16
31 SWEETMEAT & NIMCO	0.3846	187.36	223.69	226.13
32 FISH	0.2703	152.98	189.31	184.05
33 MEAT	2.6981	226.78	260.14	263.43
34 CHICKEN FARM	0.9158	174.04	217.06	228.66
35 EGGS	0.4119	150.74	225.56	222.38
36 POTATOES	0.6056	118.43	142.29	128.09
37 ONIONS	0.6487	99.91	258.24	415.40
38 TOMATOES	0.5083	217.41	159.64	167.20
39 VEGETABLES	1.7623	245.38	171.95	186.76
40 FRESH FRUITS	1.6155	187.19	197.23	222.57
APPAREL, TEXTILE & FOOTWEAR.	6.0977	135.89	153.92	154.41
41 COTTON CLOTH	1.6197	139.05	155.92	156.92
42 SILK,LINEN,WOOLEN/CLOTH	0.5766	136.84	152.43	152.77
43 TAILORING CHARGES	0.8636	138.63	161.79	161.95
44 HOSIERY	0.1528	144.44	164.79	165.31
45 READYMADE GARMENTS	1.2038	128.15	141.07	141.44
46 WOOLEN READYMADE GARMENTS	0.1485	155.82	177.78	177.91
47 FOOTWEAR	1.5327	133.93	154.64	154.95
HOUSE RENT.	23.4298	158.04	185.20	187.57
48 HOUSE RENT INDEX (Combined)	23.4298	158.04	185.20	187.57

(continued)

(continued)

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

Item and Specification	Weights	Index		
		Mar-08	Feb-09	Mar-09
FUEL AND LIGHTING.	7.2912	164.25	208.21	208.15
49 KEROSENE	0.1366	291.58	387.99	389.17
50 FIREWOOD	0.4778	257.53	302.95	306.61
51 MATCH BOX	0.1301	100.00	200.00	200.00
52 BULB & TUBE	0.1311	93.52	102.82	111.44
53 ELECTRICITY	4.3698	127.23	159.21	159.77
54 NATURAL GAS	2.0458	221.63	286.02	283.12
H.HOLD.FURNITURE & EQUIPMENT ETC.	3.2862	142.91	162.17	163.16
55 UTENSILS	0.3690	129.40	148.73	149.57
56 PLASTIC PRODUCTS	0.1055	154.31	190.62	191.66
57 SUITCASE	0.0470	132.77	156.60	157.02
58 HOUSE HOLD EQUIPMENTS	0.0953	129.07	144.07	149.00
59 FURNITURE (Ready Made)	0.3054	147.61	173.38	174.46
60 FURNISHING	0.6362	138.49	154.75	155.44
61 ELECT.IRON FANS & WASHING MACHINE	0.1889	130.81	164.43	165.06
62 SEWING MACHINE,CLOCK AND NEEDLES	0.1270	121.26	140.47	141.57
63 REFRIGERATOR & AIRCONDITIONER	0.1756	104.56	127.73	129.44
64 MARRIAGE HALL	0.0445	161.57	186.97	188.76
65 HOUSE HOLD SERVANT	1.1918	157.92	172.67	173.45
TRANSPORT & COMMUNICATION.	7.3222	158.04	186.04	186.23
66 PETROL	1.7253	205.51	189.71	189.71
67 DIESEL	0.2070	279.23	362.66	362.66
68 CNG. FILLING CHARGES	0.1649	160.76	205.46	205.46
69 SERVICE CHARGES	0.3835	141.12	163.34	165.53
70 VEHICLES	0.2596	104.24	134.32	134.55
71 TYRE & TUBE	0.2831	130.45	157.82	158.81
72 TRANSPORT FARE/CHARGES	2.1236	178.80	252.36	252.45
73 TRAIN FARE	0.1514	170.01	253.24	253.24
74 AIR FARE	0.0983	280.47	342.93	342.93
75 COMMUNICATION	1.9255	86.84	91.31	91.34
RECREATION & ENTERTAINMENT.	0.8259	106.51	121.25	121.30
76 RECREATION	0.3399	101.88	131.89	131.89
77 ENTERTAINMENT	0.4860	109.71	113.83	113.89
EDUCATION.	3.4548	139.85	164.68	165.58
78 TUTION FEES	2.3629	145.58	165.55	165.76
79 STATIONERY	0.3500	133.74	169.14	172.91
80 TEXT BOOKS	0.6894	127.75	165.52	167.42
81 COMPUTER & ALLIED PRODUCTS	0.0525	81.52	84.57	84.38
CLEANING LAUNDRY & PER.APPEARANCE.	5.8788	145.69	167.37	169.61
82 WASHING SOAP & DETERGENT	1.5535	134.34	161.64	163.07
83 TOILET SOAP	0.7436	161.07	186.50	186.50
84 TOOTH PASTE	0.4036	110.33	113.13	113.55
85 SHAVING ARTICLES	0.3480	128.13	146.70	148.07
86 COSMETICS	1.4272	130.26	149.94	154.37
87 WATCHES	0.0552	128.99	138.22	138.95
88 JEWELLERY	0.3936	282.34	319.00	326.83
89 LAUNDRY CHARGES	0.2207	153.96	179.11	179.11
90 HAIR CUT & BEAUTY PARLOUR CHARGES	0.7334	137.37	150.94	152.13
MEDICARE.	2.0728	131.46	149.97	150.09
91 DRUGS & MEDICARES	1.0752	108.42	117.80	118.04
92 DOCTOR'S FEE	0.9976	156.29	184.63	184.63

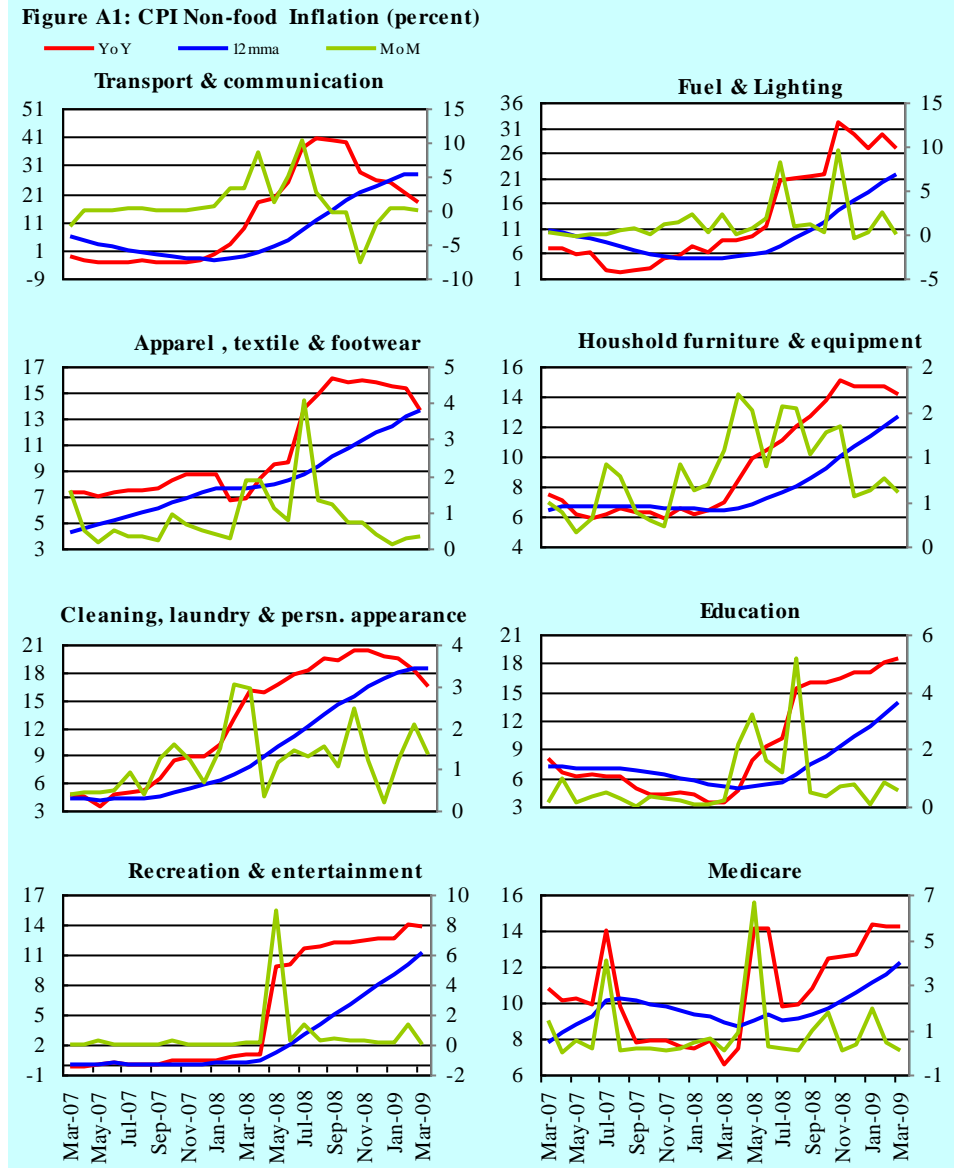


Figure A2: Frequency Distribution of Price Changes of CPI Items, March 2009

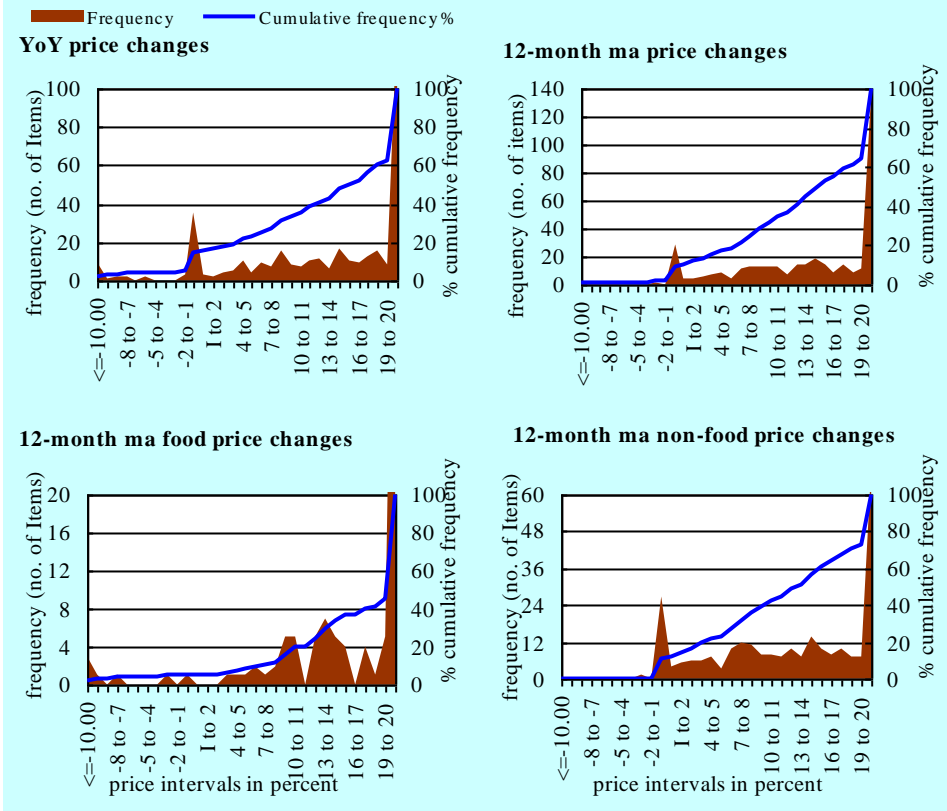
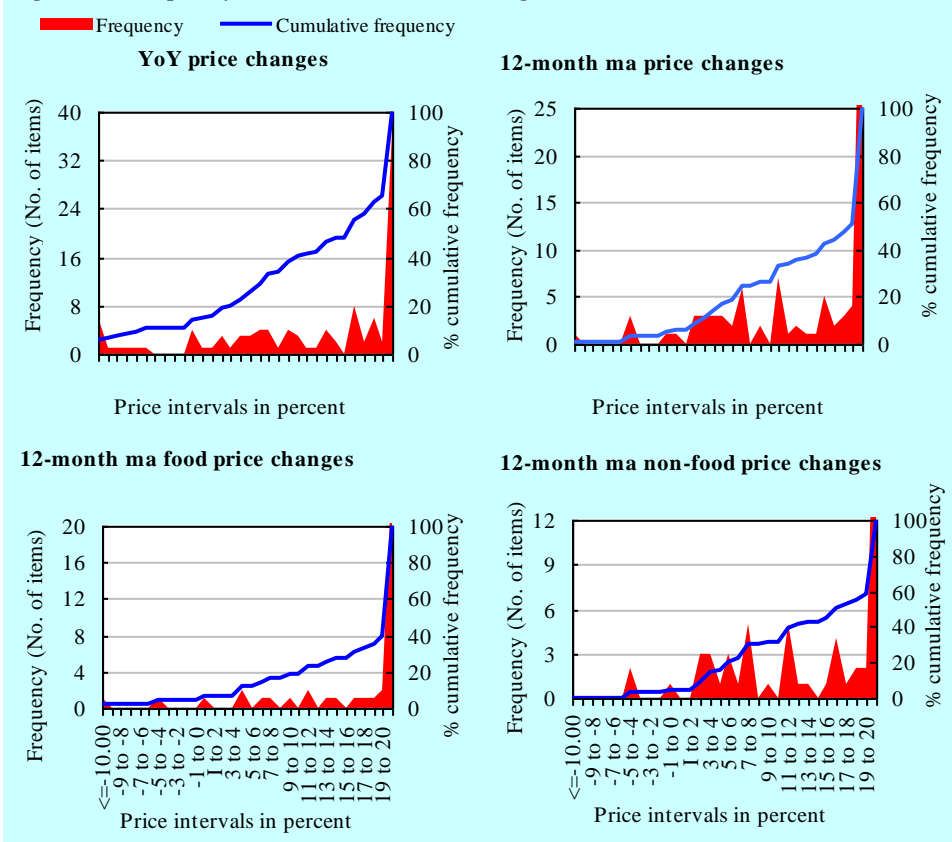


Figure A3: Frequency Distribution of Price Changes of WPI Items, March 2009



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