

Inflation Monitor

February 2009



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Contents

1.	Overview	1
2.	Consumer Price Index	4
	2.1 Food Inflation	5
	2.2 Non-food Inflation	7
	2.3 City-wise Inflation	8
	2.4 Income Group-wise Inflation	9
	2.5 Services and Non-services Inflation	10
3.	Wholesale Price Index	11
4.	Sensitive Price Indicator	13
5.	Global Commodity Prices	14

Annexure A:	17
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Table A1: CPI Inflation (YoY) by Groups	
Table A2: Distribution of Price Changes of CPI Basket, February 2009 (YoY)	
Table A3: Top Ten Contributors to YoY CPI Inflation in February 2009	
Table A4: Distribution of YoY Price Changes - Selected CPI Items, February 2009	
Table A5: City-wise CPI Inflation (YoY) by Income Groups February 2009	
Table A6: Income Group-wise CPI Inflation (YoY)	
Table A7: Distribution of Wholesale Price Changes (YoY), February 2009	
Table A8: SPI Item-wise Price Movements for the month of February 2009	
Table A9: Consumer Price Index Numbers by Major Groups and Selected Commodities for February 2009	

Figure A1: CPI Non-food Inflation

Figure A2: Frequency Distribution of Price Changes of CPI Items February 2009

Figure A3: Frequency Distribution of Price Changes of WPI Items February 2009

Annexure B: Technical Notes	30
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Overview

The downward trend in CPI inflation seen in recent months was broken in February 2009, with CPI (YoY) inflation rising to 21.1 percent compared to 20.5 percent in the previous month. This rise in CPI inflation (YoY) was mainly due to increase in food inflation which rose to 22.9 percent (YoY) in the month under review, compared to 21.6 percent during January 2009. The rise in food inflation was stronger and more than offset a slight moderation in non-food inflation in this period (see **Table 1.1**).

Table 1.1: Inflation (YoY)							percent
	CPI			Core Inflation		WPI	SPI**
	General	Food	Non-food	NFNE *	Trimmed		
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
Jan-09	20.5	21.6	19.7	18.9	19.6	15.7	21.3
Feb-09	21.1	22.9	19.6	18.9	20.8	15.0	23.9

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

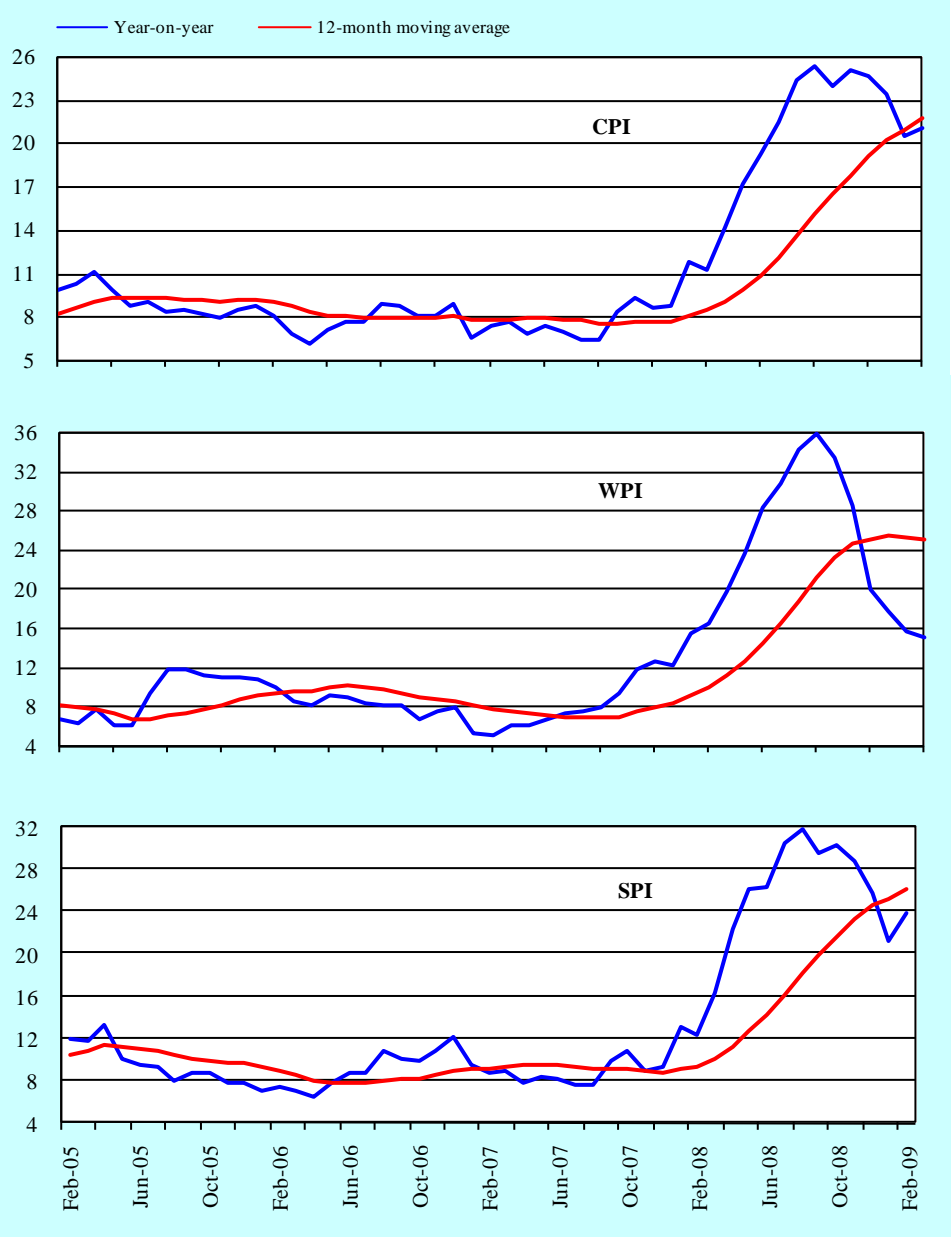
On a month-on-month (MoM) basis CPI inflation registered positive growth for the first time since October 2008. It rose by 1.0 percent during the month under review compared to a 0.4 percent decline in the previous month. This increase of February 2009 was even greater than 0.5 percent increase seen in February 2008 (see **Table 1.2**). Similar to overall CPI, both food and non-food groups of CPI registered higher MoM growth during February 2009 compared to January 2009.

Core inflation (YoY) measured by both non food non energy (NFNE) and 20% trimmed mean remained strong during February 2009. NFNE inflation (YoY) was recorded at 18.9 percent during the month under review compared to 8.1 percent in February 2008. Similarly, core inflation measured by 20% trimmed mean on YoY basis was also higher, reaching 20.8 percent during February 2009 compared to 9.6 percent in the corresponding month last year.

Table 1.2: Different Dimensions of Inflation (percent)					
	Feb-07	Feb-08	Jan-09	Feb-09	5-year average#
	Year-on-year				
Overall CPI	7.4	11.3	20.5	21.1	8.2
Food group	10.0	16.0	21.6	22.9	10.4
Non-food group	5.6	7.8	19.7	19.6	6.6
Core Inflation					
NFNE*	6.0	8.1	18.9	18.9	6.6
Trimmed	6.8	9.6	19.6	20.8	7.2
	Period average				
Overall CPI	8.0	8.9	23.9	23.5	7.6
Food group	10.3	13.0	29.8	28.9	9.5
Non-food group	6.5	5.9	19.2	19.3	6.2
Core Inflation					
NFNE*	6.1	6.8	17.6	17.8	6.2
Trimmed	6.7	8.3	20.8	20.6	6.9
	12-month moving average				
Overall CPI	7.7	8.4	21.0	21.7	0.0
Food group	8.7	12.1	27.7	28.2	9.0
Non-food group	6.9	5.7	15.8	16.8	6.1
Core Inflation					
NFNE*	6.4	6.4	14.8	15.7	6.0
Trimmed	6.6	8.2	17.5	18.9	6.7
	Monthly				
Overall CPI	1.0	0.5	-0.4	1.0	0.5
Food group	1.4	-0.5	-2.0	0.6	0.1
Non-food group	0.8	1.2	0.9	1.2	0.8
Core Inflation					
NFNE*	0.7	1.0	1.0	1.1	0.6
Trimmed	0.7	1.0	0.4	0.7	0.6
* NFNE is Non-food non-energy inflation					
# 5-year average excluding FY09					

Wholesale price index (WPI) inflation (YoY) continued to decline on YoY basis and reached 15.0 percent in February 2009 compared to 16.4 percent in February 2008. On the other hand, following the trend of CPI, inflation (YoY) measured by sensitive price indicator (SPI) increased during the month under review and was recorded at 23.9 percent (YoY) compared to 12.3 percent in February 2008 (see **Figure 1.1**).

Figure 1.1: Movements in Price Indices (percent change)



2. Consumer Price Index

Although CPI inflation (YoY) remained higher during February 2009 compared to the same month last year, a moderation in it begun in October 2008. However, CPI inflation (YoY) witnessed acceleration during February 2009 to reach 21.1 percent compared to 20.5 percent during January 2009. Though inflation recorded by both food and non-food groups of

CPI inflation remained strong during the month under review, rise in CPI inflation was mainly driven by the CPI food group. Food inflation rose to 22.9 percent during February 2009 compared to 16.0 percent during February 2008. Similarly, although the CPI non-food group decelerated a little in February 2009 from the previous month, it remained high compared to the same month last year (see **Figure 2.1**).

Figure 2.1: Consumer Price Inflation (YoY)

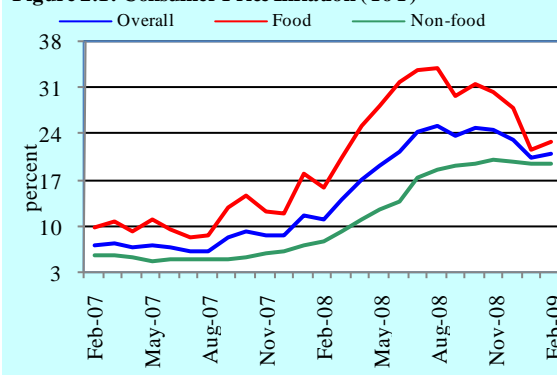
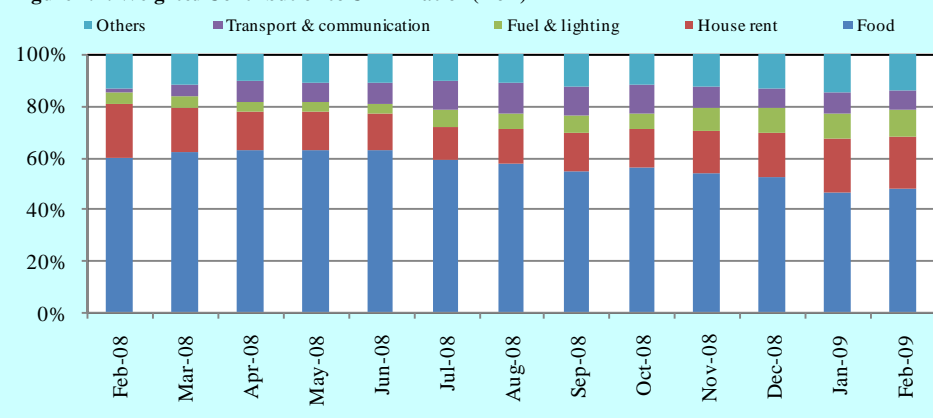


Figure 2.2: Weighted Contribution to CPI Inflation (YoY)



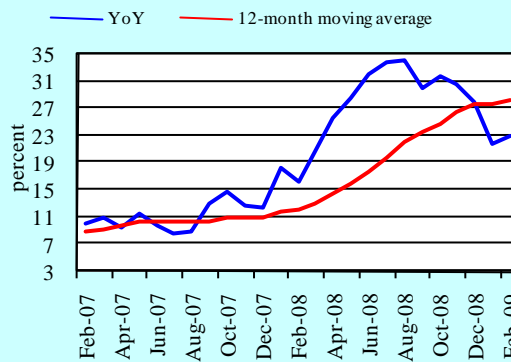
In terms of weighted contribution to overall CPI inflation, food group's contribution registered an increase for the first time since October 2008, reaching 47.6 percent during February 2009 compared to 46.6 percent during the previous month. However, this contribution is lower as compared to 59.9 percent seen in February 2008. Within non-food group, the *fuel and lighting*

sub-group witnessed a slight increase in its weighted contribution compared to the previous month (see **Figure 2.2**).

2.1 Food Inflation

After a significant decline in January 2009 compared to December 2008, food inflation increased during February 2009. Food inflation on YoY basis was recorded at 22.9 percent during the month under review compared to 21.6 percent in January 2009 and 16.0 percent in the same month last year (see **Figure 2.3**).

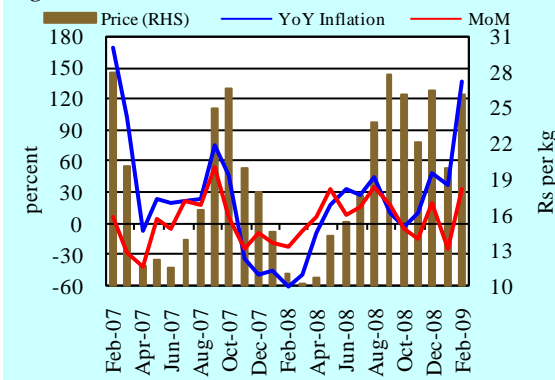
Figure 2.3: CPI Food Inflation



Out of top ten contributors to overall CPI inflation (YoY), six items, having a combined weighted contribution of 32.6 percent, belong to the food group. Within CPI food basket wheat flour, fresh milk, sugar and onion were the top four items in terms of their weighted contribution (57.1) to the food inflation.

A detailed analysis of price movements in CPI food basket on YoY basis reveals that out of 108 reported commodities, 12 items exhibited a decline in their prices and one item (chocolate candy) showed no price change, 16 items depicted a price change between 0 to 10 percent, 59 items recorded a price change between 10 to 40 percent, 18 items showed a price change between 40 to 100 percent and two commodities – coffee (108.9 percent) and onion (137.4 percent) – recorded price increases of over 100 percent. It is important to note that price change on YoY basis in onion during February 2008 was (-) 60.6 percent (see **Figure 2.4** and **Table A2** in **Annexure A**).

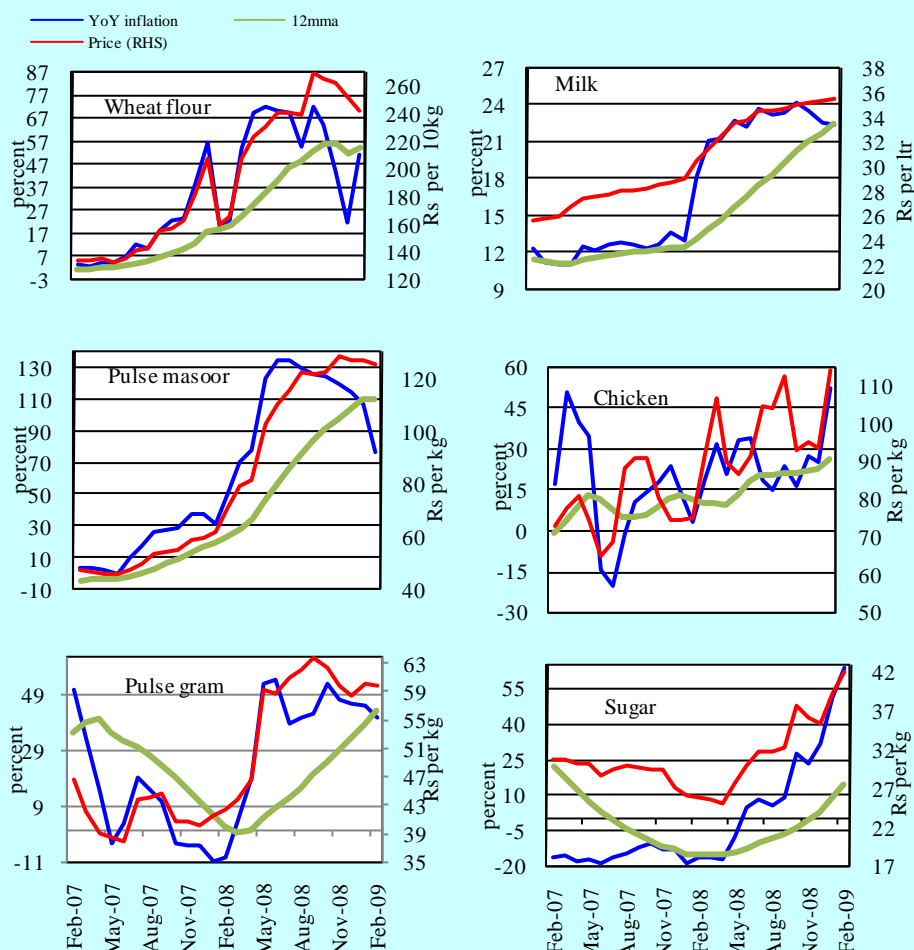
Figure 2.4: Price trends in Onion



On MoM basis food inflation reached 0.6 percent in February 2009 compared to (-)2.0 percent during January 2009 and (-)0.5 percent in February 2008. A

segregated analysis of CPI food basket on month-on-month (MoM) basis revealed that 6 items including onion, chilies green, chicken, tomatoes, kinnu and malta recorded double digit price change during February 2009 (4 items during January 2009), whereas prices of 33 items including peas, cucumber, vegetable ghee, wheat flour, rice, pulse masoor, etc. declined. It is important to note that onion recorded the highest price change (31.7 percent) on MoM basis in February 2009 compared to (-) 24.8 percent in previous month and (-) 23.9 percent during February 2008 (see **Figure 2.4**).

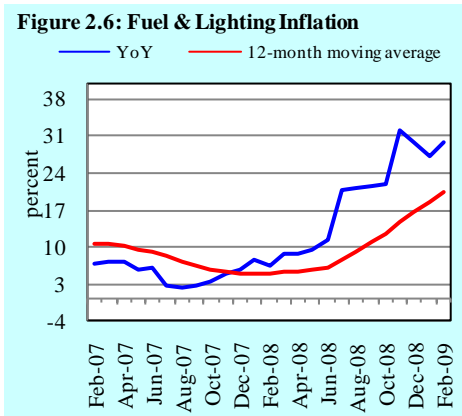
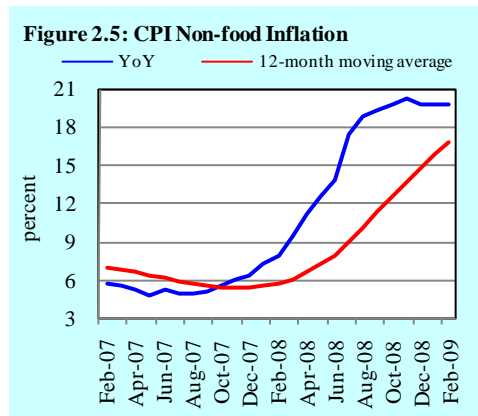
Figure 2.4a: Price Trends in Key Food Items



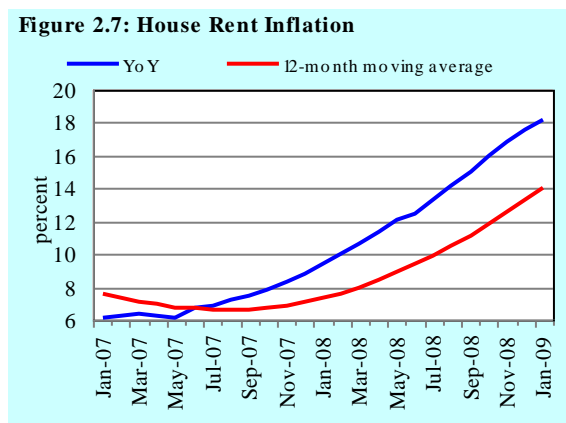
2.2 Non-food Inflation

Non-food component of CPI recorded slight decline in inflation (YoY) during February 2009 compared to the previous month, however it is still high compared to February 2008 (see **Figure 2.5**). Among the non-food groups, all sub-groups recorded double digit YoY inflation during the month under review. However *transport & communication* and *fuel and lighting* sub-groups showed significant acceleration during February 2009 compared to the same month last year.

YoY inflation for *fuel & lighting* sub-group was recorded at 29.8 percent during February 2009 compared to 6.2 percent in the same month last year (see **Figure 2.6**). More than seventy percent of the items included in the sub-group recorded double digit YoY price change during the month under review. In particular gas charges for the upper two groups (3.3719 - 6.7438 MMB and 6.7438 - 10.1157 MMB) and gas cylinder charges recorded significant increase in their prices during the month under review.



Transport & communication sub-group's YoY inflation reached to 21.5 percent during February 2009 compared to 3.0 percent in the corresponding month last year. However on MoM basis inflation in this sub-group showed a decline and was recorded at 0.2 percent during the month under review compared to 0.3 percent in January 2009.



The increasing trend in *house rent index* inflation, on YoY basis, continued during February 2009. It reached 18.5 percent during the month under review compared to 10.0 percent in February 2008. However, on a month-on-month basis, the February 2009 figure was 0.2 percentage points lower than in January 2009 (see **Figure 2.7**).

Other sub-groups 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 February 2009 compared to the same month last year (see **Figure A1** in Annexure).

Commodity wise analysis of 250 items revealed that prices of 6 items declined, 21 items showed no change in their prices, 19 showed price change between 0 to 5 percent, prices of 34 items moved between 5 to 10 percent and 170 commodities showed price change of more than 10 percent. 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). However, their weighted share is just 0.1 percent in overall CPI. On MoM basis, prices of 13 items declined, 108 commodities registered no change in their prices, 45 items recorded price change from 0 to 0.5 percent, prices change of 34 items ranged between 0.5 to 1.0 percent, remaining 50 commodities showed more than 1 percent price change. The most significant MoM price change was recorded in monthly Naunehal digest (25.0 percent).

2.3 City-wise Inflation

Increase in inflationary pressures is also evident in inflation profile of the large cities, federal and provincial capitals. While only Peshawar experienced above average CPI inflation during February 2008, Karachi and Quetta also

Table 2.1: City-wise Inflation of Selected Cities						percent
	Feb-08		Jan-09		Feb-09	
	MoM	YoY	MoM	YoY	MoM	YoY
Over all CPI	0.5	11.3	-0.4	20.5	1.0	21.1
Islamabad	1.6	9.8	-0.2	19.0	1.2	18.4
Lahore	1.6	10.4	-0.2	18.9	0.9	18.1
Karachi	0.0	9.8	-1.0	20.7	1.3	22.2
Quetta	-1.1	11.1	-0.2	23.2	0.4	25.1
Peshawar	-0.4	11.4	-1.6	22.8	0.5	23.9

joined the category in recent months. On month-on-month (MoM) basis inflation in Islamabad and Karachi was higher than overall CPI inflation (MoM) (see **Table 2.1**).

¹ A/C sleeper 101-500 km

The inflation (YoY) data collected from 35 cities revealed that 17 cities were in the category of high inflation cities, while remaining 18 cities were categorized in low inflation cities during the month under review. The highest inflation (YoY) was recorded in Mardan, followed by Nawabshah. Whereas the lowest inflation (YoY) was recorded in Jhang (see **Table 2.2**). Inflation based on MoM indicate that the highest inflation (MoM) was recorded in Kunri (2.5 percent) and the lowest inflation was recorded in Turbat ((-)1.9 percent) during February 2009.

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

	High inflation cities				Low inflation cities		
	General	Food	Non-food		General	Food	Non-food
Mardan	28.0	32.2	24.9	Turbat	20.9	23.6	19.0
Nawabshah	27.8	33.5	23.7	Sargodha	20.7	22.9	18.9
Shahdadpur	26.5	30.7	23.3	Rawalpindi	20.5	22.0	19.5
Mirpur Khas	26.2	28.0	24.9	D.G. Khan	20.5	18.3	22.3
Kunri	25.8	28.0	24.1	Samundari	20.0	19.0	20.7
Quetta	25.1	32.9	19.2	Faisalabad	19.9	18.0	21.4
Peshawar	23.9	25.8	22.3	Sialkot	19.7	20.0	19.6
Sukkur	23.6	26.8	21.2	Mianwali	19.6	20.7	18.9
Abbotabad	23.1	25.0	21.5	Vehari	19.5	20.5	18.7
Khuzdar	22.8	25.7	20.7	Attock	19.2	20.2	18.5
Loralai	22.7	26.4	20.1	Multan	18.6	19.4	17.9
D.I.Khan	22.3	26.9	18.8	Islamabad	18.4	18.7	18.2
Karachi	22.2	24.5	20.6	Lahore	18.1	17.8	18.3
Okara	22.0	21.9	22.0	Jhelum	18.1	16.6	19.1
Larkana	21.8	22.7	21.0	Gujranwala	17.0	15.2	18.4
Hyderabad	21.7	24.4	19.6	Bahawalpur	16.9	16.3	17.5
Bannu	21.6	25.5	18.6	Bahawalnagar	16.7	18.0	15.6
				Jhang	16.5	13.8	18.5

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

2.4 Income Group-wise Inflation

Income group wise inflation (YoY) data revealed that all income groups experienced higher than the average CPI inflation except for the highest income group. However, by analyzing inflation (MoM) some shift in inflationary pressures can be seen from low-income groups to high-income groups due to substantially high non-food inflation in February 2009 (see **Table 2.3**).

	Table 2.3: Income Group-wise CPI Inflation				percent
	Feb-08		Feb-09		
	MoM	YoY	MoM	YoY	
Over all CPI	0.5	11.3	1.0	21.1	
Income Groups					
Upto 3000	0.9	13.4	-0.3	21.7	
Rs.3001-5000	1.1	13.0	-0.3	22.2	
Rs.5001-12000	1.0	12.0	0.1	22.0	
Above Rs.12000	1.1	10.1	1.1	19.8	

City and income group wise data, collected from 17 cities, showed that Quetta recorded the highest inflation for all income groups and Bahawalpur experienced the lowest inflation for all income groups except for income group above Rs. 12,000 (Gujranwala being the lowest) during February 2009 (see **Table A5** in Annexure A).

2.5 Services and Non-services Inflation

Inflation (YoY) in services² and non-services sectors increased during February 2009 compared to the corresponding month last year. Services sector inflation (YoY) reached 21.0 percent compared to 7.8 percent during the same month last year. Inflation (MoM) increased from 0.9 percent during January 2009 to 1.4 percent in February 2009.

Inflation (YoY) in non-services sector showed increasing trend and was recorded at 21.2 percent in the month under review compared to 13.9 percent in the corresponding month last year. Inflation (MoM) in this sector also increased to 0.7 percent from (-) 1.4 percent during the month under review (see **Figure 2.8**).

Segregation of non-services sector into durable³ and non-durable sub-groups shows that inflation (YoY) in both sub-groups remained higher during February 2009 compared to the same month last year. Inflation (YoY) for durable goods reached 22.7 percent during February 2009 compared to 15.9 percent in the

Figure 2.8: Services & Non-services Inflation

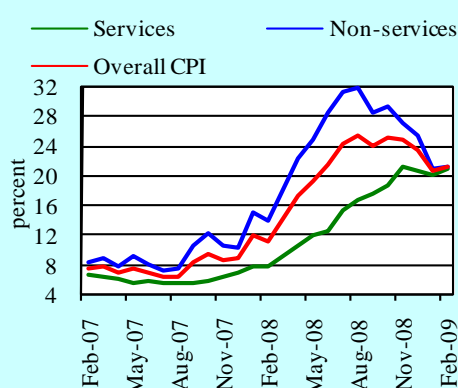
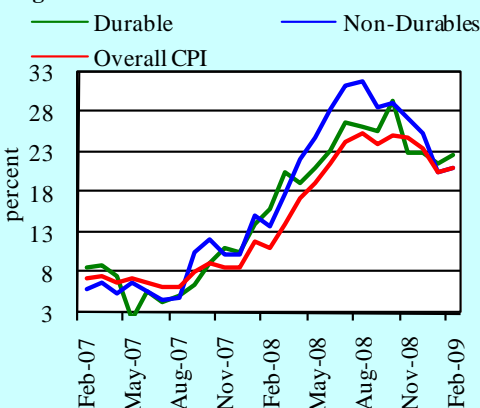


Figure 2.9: Durables and Non-durables Inflation



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.

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.

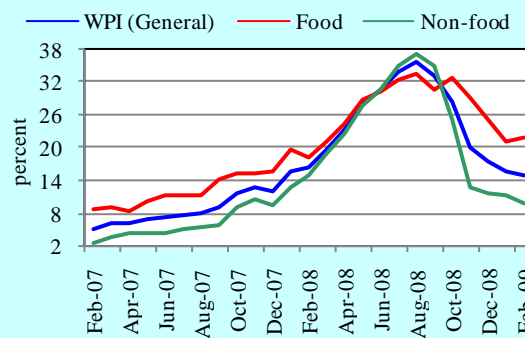
same month last year. Inflation (MoM) also recorded an increase reaching 3.3 percent in February 2009 compared to 2.2 percent during January 2009.

Inflation (YoY) in non-durable goods was recorded at 21.1 percent during the month under review compared to 13.8 percent in the same month last year. Inflation (MoM) in this sub-group also increased and was recorded at 0.6 percent during February 2009 compared to (-) 1.5 percent in January 2009 (see **Figure 2.9**).

3. Wholesale Price Index

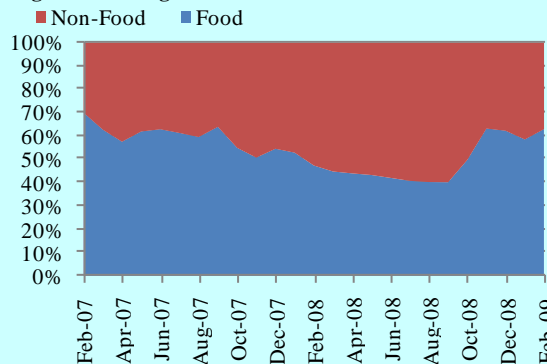
Inflation (YoY) measured by wholesale price index (WPI) continued on its downtrend since September 2008, reaching 15.0 percent during February 2009 compared to 16.4 percent during the same month last year. Simliar to the overall WPI inflation, non-food group of WPI also decreased during the month under review. WPI non-food inflation (YoY) was recorded in single digit for the first time since January 2008 as it reached 9.8 percent during February 2009 compared to 15.0 percent in the same month last year (see **Figure 3.1**). WPI food group, on the other hand, witnessed an increase in inflation during the month under review and was recorded at 22.0 percent compared to 18.3 percent during February 2008.

Figure 3.1: Wholesale Price Inflation (YoY)



Rising WPI food inflation resulted in an increase in its weighted contribution to overall WPI inflation as it reached 62.9 percent in February 2009 compared to 47.3 percent during the same month last year (see **Figure 3.2**). The major food items recording high YoY price increase during February 2009 include onions, pulse masoor, sugar, condiments, chicken,

Figure 3.2: Weighted Contributions in WPI



wheat flour, gram split, etc. On the other hand, four food items showed negative price change including tomatoes (-24.1 percent), vegetable ghee (-14.4 percent), vegetables (-13.4 percent) and pulse moong (-1.7 percent) (see **Table A7** & **Figure 3.3**).

Within WPI non-food group, more than 60 percent of the items registered double digit YoY price growth during the month under review. In particular items like sugarcane, glass products, diesel oil, cement blocks, tubes, glass sheets, etc. registered more than 40 percent growth (see **Table A7** and **Figure 3.4**). In contrast, eight non-food items, including furnace oil, cotton yarn, chemicals, etc. either declined or showed no change during the month under review.

Figure 3.3: Changes in Wholesale Prices of Selected Food Items (February 2009)

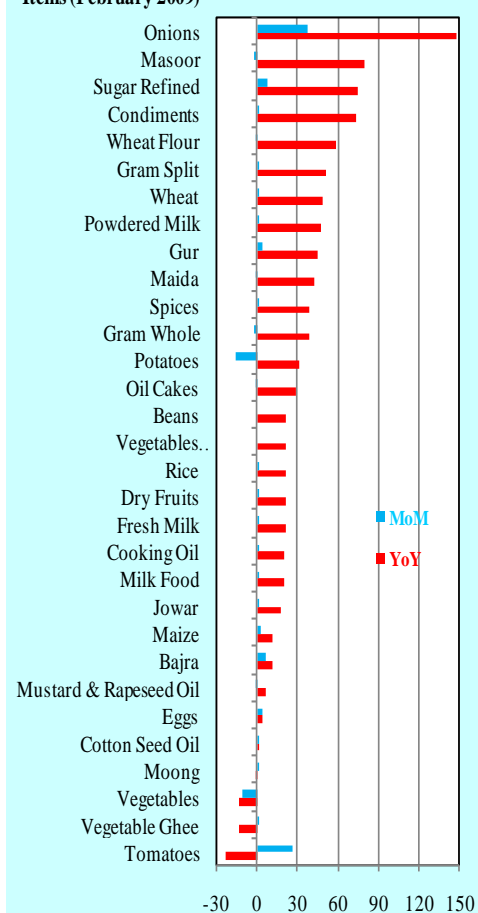
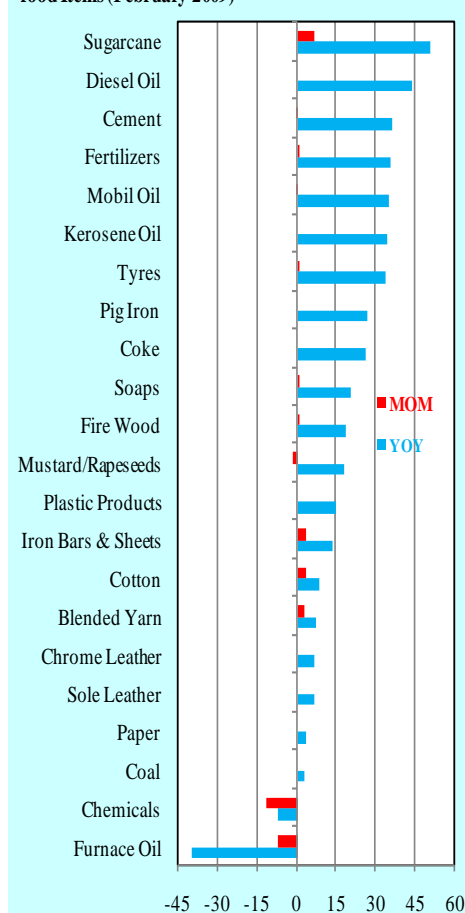


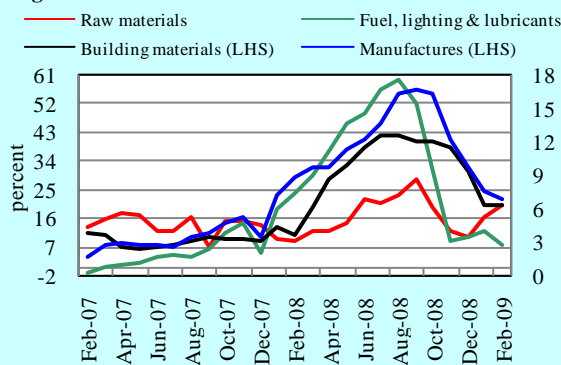
Figure 3.4: Changes in Wholesale Prices of Selected Non-food Items (February 2009)



Amongst the various sub-indices of the WPI non-food group all sub-indices, except the *raw material* sub-index, recorded lower inflation (YoY) during February 2008 as compared to the previous month (see **Figure 3.5**). Inflation recorded by the *raw material* sub-group reached 19.9 percent during February 2009 compared to 8.9 percent during the same month last year. All items included in the sub-group, except hides, witnessed positive YoY growth during the month under review with items like sugarcane, pig iron, tobacco, etc, recording more than 25 percent growth.

A detailed analysis of YoY price changes of the items included in the sub-indices of WPI non-food group is presented in **Table A7**.

Figure 3.5: WPI Non-food Inflation-YoY

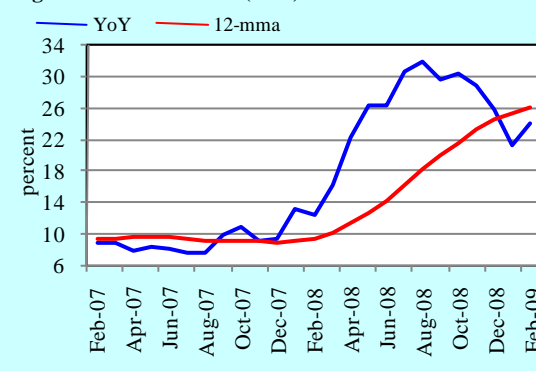


4. Sensitive Price Indicator

Sensitive price indicator (SPI) registered an increase in inflation on YoY basis to reach 23.9 percent in February 2009 compared to 21.3 percent in the previous month. Similarly the long-run trend in SPI, indicated by the 12-month moving average, continued its uptrend to reach 26.1 percent during the month under review (see **Figure 4.1**).

The major items recording high YoY growth during the month under review include onions (158.9 percent), pulse masoor (68.2 percent), sugar (63.4 percent), chicken (54.2 percent), diesel (52.4 percent), and kerosene (50.4 percent). On the other hand, seven items recorded negative YoY growth in their prices including tomatoes (19.3 percent), vegetable ghee (16.0 percent), and pulse moong (7.8 percent) (see **Table A8** in Annexure A).

Figure 4.1: SPI Inflation (YoY)



During February 2009, SPI inflation measured on MoM basis witnessed positive growth for the first time since October 2008. This uptick in SPI inflation was

contributed largely by double digit increases in the prices of a few food items such as chicken, tomatoes and onions (see **Table A8** in Annexure A).

Weekly SPI witnessed an increase in YoY inflation throughout February 2009 and fluctuated within the range of 23.1 percent to 24.5 percent (see **Figure 4.2**).

Income group-wise SPI data for February 2009 indicates higher YoY inflation for all income groups compared to both the previous and the same month last year. Like the previous month, incidence of SPI inflation (YoY) remained highest for the income group having monthly income between Rs. 5000 to 12000 (see **Table 4.2**).

Figure 4.2: Weekly SPI Inflation

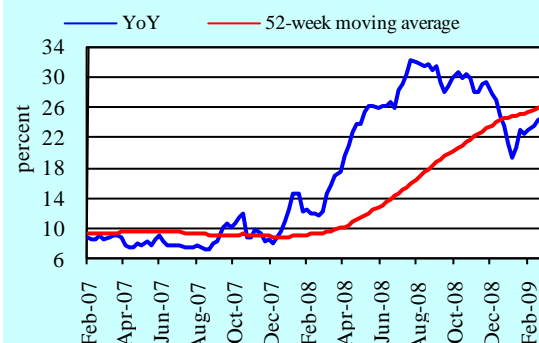


Table 4.2 : Income Group-wise SPI Inflation (YoY)

	percent			
	Feb-08	Jun-08	Jan-09	Feb-09
Up to Rs. 3000	14.6	30.0	20.8	23.4
Rs. 3001-5000	14.3	29.2	21.3	24.1
Rs. 5000-12000	13.2	27.0	22.0	25.0
Above Rs. 12000	10.4	23.5	21.0	23.6
All income groups	12.3	26.3	21.3	23.9

5. Global Commodity Prices

After showing rise during January 2009, for the first time in the last six months, international commodity prices again declined in February 2009 as a result of: (a) weak demand due to ongoing global financial crises and (b) stronger dollar (dollar gained 3.6 percent against Euro)⁴. This decline is evident from all major price indices (see **Table 5.1**).

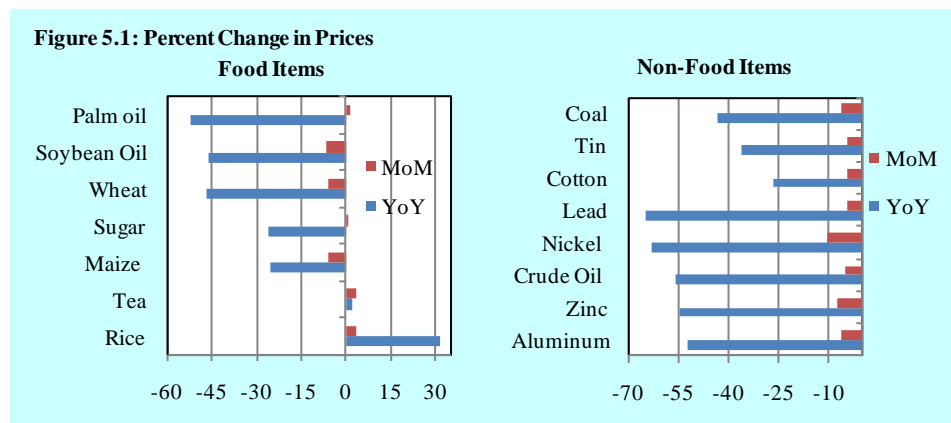
Table 5.1: Commodity Price Indices (February 2009)

	Percentage Change Over	
	Previous Year	Previous Month
All Commodities	-42.96	-4.30
Non-Fuel	-31.60	-2.39
Food Price	-24.62	-2.43
Industrial Inputs	-40.35	-2.73
Agriculture	-25.40	-2.22
Metals	-46.92	-3.05
Fuel	-49.06	-5.64

Source: IMF

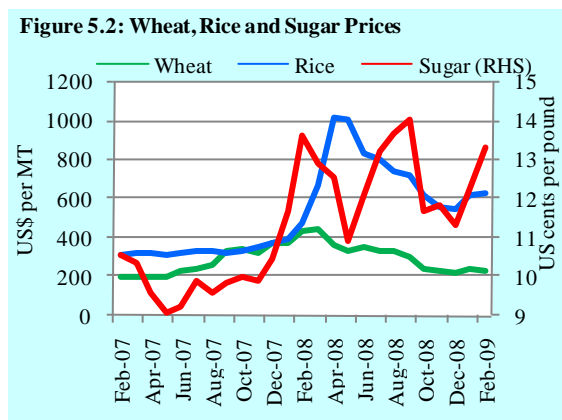
⁴ Commodity Market Review, World Bank March 10, 2009.

This decline in international commodity price indices was mainly contributed by a decrease in the prices of non-food items. In particular metal prices dropped on falling demand and rising stocks of almost all industrial metals. The prices of nickel, zinc and aluminum dropped due to weak stainless steel demand especially outside China and steady gains in their inventories. However, the prices of precious metals (gold and silver) strengthened in the international markets during February 2009 on investors' safe haven buying. Cotton prices also fell in international markets due to reduced demand from textile producers, especially China.



In the case of major food items, the price movements showed mixed trend. Prices of rice, sugar, tea and palm oil gained, whereas the prices of wheat, soybean oil and maize (corn) declined in February 2009 over January 2009 (see **Figure 5.1** and **Figure 5.2**).

The decline in wheat price was mainly due to initial expectations of a bumper crop as global wheat production is expected to reach 683 million tons during 2008-09 – i.e. 12 percent higher than the previous year. Similarly the price of soybean oil decreased as a result of (a) better production estimates in the U.S.; and (b) improved weather conditions in South America (Brazil and Argentina).



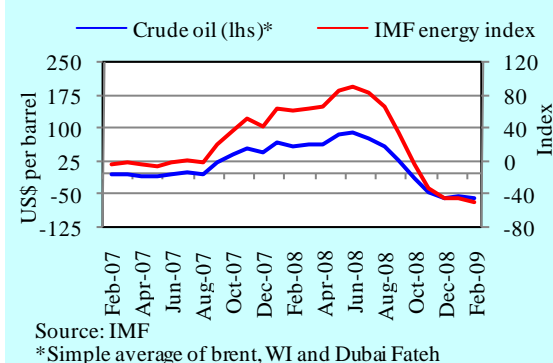
Sugar prices rose (YoY) during February 2009 largely because of the expectations that India has become a net importer due to poor sugarcane harvest this year. In international markets, sugar futures rose as the government of India, the world's second-biggest sugar producer, took steps to lower tariffs on imports for domestic use. According to initial estimates, India is expected to produce 40 percent less sugar this season, totaling 16 million metric tons for the year ending by September 2009. India may need to import as much as 1.5 million tons to fill its deficit. Indian farmers have produced less sugarcane as they shifted land to more profitable crops. Moreover, lower crops of sugarcane are also expected in the US, China and Australia. Going forward, a tight demand and supply situation would result in an uptrend in sugar prices

Rice prices rose in international market during February 2009 over the preceding month on hopes that if US relaxes trade restrictions on Cuba, it will lead to more rice exports.

A detailed picture of fuel (energy) group depicts that average crude oil⁵ prices declined as its stocks continued to rise amid weak global demand; despite significant cuts in OPEC production. Other factors that contributed to the current decline in international crude oil price include: (a) A bigger than expected increase in the supplies of the commodity. According to the energy department, US crude oil supplies jumped to the highest since June 2007, and (b) Japan's economy, the world's largest oil consumer after the U.S. and China, contracted the most since 1974 in fourth quarter, according to a government report.

Current fall in the prices of crude oil prices was also reflected by IMF energy index that declined by 5.6 percent compared to the previous month (see **Figure 5.3**).

Figure 5.3: Crude Oil Price/Index



⁵ Simple average of brent, WTI and Dubai Fateh.

Annexure A

Table A1: CPI Inflation (YoY) by Groups						
	Weights	Feb-05	Feb-06	Feb-07	Feb-08	Feb-09
I. Food Group	40.3	12.9	7.5	10.0	16.0	22.9
II. Non-Food Group	59.7	8.0	8.4	5.6	7.8	19.6
Apparel, textile, etc.	6.1	2.6	3.9	6.2	6.7	15.4
House rent	23.4	12.3	9.4	6.3	10.0	18.5
Fuel & lighting	7.3	5.8	10.1	6.5	6.2	29.8
Household furniture & equipment	3.3	7.0	4.4	7.5	6.3	14.7
Transport & communication	7.3	9.3	15.9	0.9	3.0	21.5
Recreation & entertainment	0.8	0.1	-0.2	-0.1	0.7	14.0
Education	3.5	2.5	6.7	8.3	3.4	18.0
Cleaning, laundry, etc.	5.9	4.8	3.0	4.5	13.0	18.3
Medicare	2.1	1.2	3.0	9.3	7.9	14.2
Headline	100	9.9	8.0	7.4	11.3	21.1

Table A2: Distribution of Price Changes of CPI Basket, February 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	22.9	108	13	8	8	79
II. Non-Food Group	19.6	250	27	19	34	170
Apparel, textile, etc.	15.4	42	1	—	13	28
House rent	18.5	1	—	—	—	1
Fuel & lighting	29.8	15	3	1	—	11
Household furniture & equipt	14.7	44	—	1	5	38
Transport & communication	21.5	43	5	1	1	36
Recreation & entertainment	14.0	16	2	4	4	6
Education	18.0	24	3	3	1	17
Cleaning, laundry, etc.	18.3	36	1	4	8	23
Medicines	14.2	29	12	5	2	10
Overall	21.1	358				

Note: Prices of 16 seasonal food items were not reported during the month.

Table A3: Top Ten Contribution to YoY CPI Inflation in February 2009					
Items		Weights	YoY change		Weighted Contribution
			Feb-08	Feb-09	
A. Ranked by Weighted Contribution					
1	House Rent Index	23.43	9.96	18.53	20.31
2	Wheat Flour	5.11	25.31	49.33	13.2
3	Milk Fresh	6.66	13.04	22.40	7.71
4	Electricity	4.37	0.00	33.20	5.19
5	Transport Fare/Charges	2.12	2.66	43.38	4.85
6	Natural Gas	2.05	9.73	25.93	3.61
7	Sugar	1.95	-16.43	63.63	3.47
8	Onions	0.64	-60.57	137.37	2.85
9	Meat	2.70	5.77	15.46	2.81
10	Rice	1.34	56.19	28.97	2.58
Total		50.36			66.55
B. Ranked by Percentage Change					
1	Onions	0.64	-60.57	137.37	2.85
2	Match Box	0.13	0.00	100.00	0.39
3	Pulse Masoor	0.22	51.16	76.73	1.00
4	Sugar	1.95	-16.43	63.63	3.47
5	Chicken Farm	0.92	3.30	52.56	2.05
6	Condiments	0.34	41.44	49.49	0.81
7	Wheat Flour	5.11	25.31	49.33	13.17
8	Train Fare	0.15	0.00	48.96	0.38
9	Gur	0.07	-16.58	48.06	0.13
10	Transport Fare/Charges	2.12	2.66	43.38	4.85
		11.65			29.09
C. Ranked by Weights					
1	House Rent Index	23.43	9.96	18.53	20.31
2	Milk Fresh	6.66	13.04	22.40	7.71
3	Wheat Flour	5.11	25.31	49.33	13.17
4	Electricity	4.37	0.00	33.20	5.19
5	Bakery & Confectionary	2.98	8.17	12.66	1.44
6	Meat	2.70	5.77	15.46	2.81
7	Vegetable Ghee	2.67	51.60	-6.10	-1.13
8	Tution Fees	2.36	3.39	13.72	1.41
9	Transport Fare/Charges	2.12	2.66	43.38	4.85
10	Natural Gas	2.05	9.73	25.93	3.61
		54.45			59.38
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 21.1 percent in February 2009.					

Table A4: Distribution of Price Changes - Selected CPI Items, February 2009

Groups	Decrease or no change	Subdued increase (upto 5%)	Moderate increase (5 to 10%)	Increase of over 10%
Food Group	Vegetable Ghee (Loose), Chocolate Candy (Small Size, Tomatoes, Pulse Moong (Washed), Cauliflower Peas, Chillies Green, Garlic	Vegetable Ghee Tin, Toffee (Hilal), Apple, Eggs Farm, Cold Drink (Standard Size), Biscuits-Packed, Carrot, Radish	Cigarettes K-2 10's, Pulse Mash (Washed), Jam Ahmed/Mitchelles Rooh Afza, Fruit Juice Tetra Pack, Pepper Black National, Cardamom Large Loose Average Quality, Cloves Loose Average Quality	Milk Fresh (Unboiled), Wheat Flour Bag, Sugar Refined, Beef With Bone Average Quality, Wheat Flour Fine/Superior, Mutton Average Quality, Chicken Farm Broiler (Live), Cooking Oil (Dalda), Onion
Apparel & Textile	Gents Sandal Bata		School Uniform. Kameez, Shalwar Girl, Tailoring Coat-Pant Suit Gents Shoe	Lawn Average Quality, Shirting Average Quality
House Rent Index				House Rent Index
Fuel & Lighting	Gas Charges Upto 3.3719 Mmbtu, Electricity Charges Upto 50 Units	Tube Light Philips 40 Watts		Electricity Charges Above 1000 Units, Electricity Charges 301 - 1000 Units, Kerosene Oil, Match Box Small
Household Furniture & Equipment		Carpet Plain Average .Quality	Blanket (90" X 54") Electric Juicer For Apple, S.Steel Deghchi Medium Size	Tea-Set S.Steel 3 Pieces, Quilt (Lihaf) 3 Kg. Cotton, Washing Machine Singer
Transport & Communication.	Petrol Super Platform Ticket Postal Envelope Domestic, Aerogram For Saudi Arabia	Telephone Charges Local Call	Telephone Charges Local Call, Telephone Charges Out Side City	A/C Bus Fare Outside City, High Speed Diesel, Minibus Fare, U.M.S.
Recreation & Entertainment	Weekly "Akhbar-E-Jahan", TV. License Fee	Video Game Sega 16 Byte, Video. Cassette, V.C.P. Panasonic	Cinema A/C. Highest Class, T.V. 20" Colored With R/Cont Cinema Non-A/C High Class	Daily "Jang", Daily "Nawa-E-Waqt," Daily "Dawn"
Education	Govt. College Fee Ist. Year, Govt. College Fee 4th. Year	Computer with Printer & Speaker, Govt. University Fee MSc	Urdu Book Class V	School Fee Secondary English medium, School Fee Primary
Cleaning & Laundry	Toothpaste Macleans 70 Gram	Brylcreem 210 ml. Lipstick S.Miss/Medora Toilet Paper Roll	Toothpowder Dentonic 90 grams, Beauty Parlor Hair Style Charge, Wrist Watch Ladies Citizen, Wrist Watch Gents Citizen	Haircut Charges For Men, Washing Soap Toilet Soap Lux 95 Grams, Shampoo Plain Medora 200 Ml.
Medicare	Dettol (Medium) Jouhar Joshanda Entox Tablet.	Daonil Tablet. 5 mg, Ventolin Talet. Septran Tablets	Brufen Tablet, O.R.S. (Nimcol)	Doctor (MBBS) Clinic Fee, Cotton Bandage 2" - 4", Gripe-Water Woodward's

Table A5: City-wise Inflation (YoY) by Income Groups, February 2009							
		Upto Rs:3000			Rs 3001-5000		
		General	Food	Non-Food	General	Food	Non-Food
1	Lahore	18.3	18.5	18.2	18.7	18.1	19.1
2	Faisalabad	19.8	18.2	20.8	20.6	18.1	22.3
3	Rawalpindi	20.6	21.9	19.7	21.4	22.6	20.6
4	Multan	18.2	19.9	17.1	18.6	19.5	18.0
5	Gujranwala	15.9	14.6	16.7	17.2	15.4	18.3
6	Islamabad	18.3	17.5	18.9	18.1	18.0	18.1
7	Sargodha	19.4	22.5	17.3	20.5	23.4	18.5
8	Sialkot	19.3	20.9	18.2	19.5	19.6	19.5
9	Bahawalpur	15.4	15.8	15.1	17.0	16.8	17.1
10	Karachi	21.9	23.0	21.2	22.4	23.1	22.0
11	Hyderabad	21.6	24.8	19.4	21.0	23.4	19.4
12	Sukkur	22.9	27.3	20.0	23.8	28.0	21.0
13	Larkana	21.7	23.8	20.3	20.9	21.6	20.4
14	Peshawar	22.2	24.4	20.7	24.8	27.1	23.2
15	Bannu	22.5	26.4	19.8	21.9	25.8	19.3
16	Quetta	27.3	35.6	21.7	25.1	33.2	19.7
17	Khuzdar	22.2	25.4	19.9	23.5	26.8	21.2
		Rs 5001-12000			above Rs 12000		
		General	Food	Non-Food	General	Food	Non-Food
1	Lahore	18.9	18.2	19.3	17.3	17.2	17.3
2	Faisalabad	20.5	18.0	22.2	19.3	18.0	20.1
3	Rawalpindi	21.3	22.2	20.8	19.7	21.6	18.4
4	Multan	19.1	19.5	18.7	17.9	18.9	17.1
5	Gujranwala	17.2	15.1	18.7	16.5	15.5	17.3
6	Islamabad	19.8	19.3	20.1	18.2	18.5	18.0
7	Sargodha	21.1	23.3	19.7	19.8	21.8	18.4
8	Sialkot	20.0	19.7	20.2	19.6	20.2	19.2
9	Bahawalpur	17.2	16.5	17.7	16.9	15.8	17.7
10	Karachi	23.1	23.9	22.5	21.4	25.4	18.7
11	Hyderabad	22.0	24.5	20.3	21.1	24.6	18.7
12	Sukkur	23.8	27.0	21.6	22.8	25.2	21.1
13	Larkana	21.7	22.5	21.1	22.6	23.9	21.6
14	Peshawar	24.8	26.7	23.6	22.8	24.4	21.7
15	Bannu	21.4	25.9	18.4	21.3	24.5	19.1
16	Quetta	26.1	34.1	20.7	23.9	31.4	18.8
17	Khuzdar	22.9	27.5	19.7	22.5	27.6	19.0

Table A6 : Income group-wise Inflation (YoY)								percent
	Jul-08	Aug-08	Sep-08	Oct-08	Nov-08	Dec-08	Jan-09	Feb-09
<u>Up to Rs. 3000</u>								
General	27.2	28.5	26.4	28.1	27.3	24.8	20.9	21.7
Food	36.4	37.3	32.2	34.7	33.0	29.0	21.9	23.7
Non-food	20.6	22.0	21.9	23.0	22.9	21.5	20.0	20.1
<u>Rs. 3001-5000</u>								
General	26.9	28.0	25.9	27.5	27.4	25.0	21.3	22.2
Food	36.6	37.2	32.0	34.2	32.4	28.6	21.7	23.6
Non-food	19.8	21.3	21.4	22.4	23.7	22.3	21.0	21.1
<u>Rs. 5000-12000</u>								
General	25.3	26.4	24.7	26.1	26.1	24.4	21.1	22.0
Food	34.8	35.2	30.6	32.5	31.2	28.3	21.7	23.3
Non-food	18.2	19.8	20.2	21.0	22.2	21.3	20.6	21.1
<u>Above Rs. 12000</u>								
General	22.8	23.7	22.6	23.3	22.5	21.8	19.7	19.8
Food	31.4	31.4	28.1	29.5	28.5	27.0	21.4	22.1
Non-food	16.5	17.8	18.3	18.4	17.7	17.7	18.4	18.1
<u>All income groups</u>								
General	24.3	25.3	23.9	25.0	24.7	23.3	20.5	21.1
Food	33.8	34.1	29.9	31.7	30.4	27.9	21.6	22.9
Non-food	17.3	18.7	19.2	19.7	20.2	19.8	19.7	19.6

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

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

Table A8: SPI Item-wise Price Movements

S.No	Items	Unit	Price Feb 09	Percentage change	
				YoY	Monthly
1	Wheat	Kg.	24.5	41.3	-0.2
2	Wheat flour average quality.	Kg.	25.2	48.8	-2.7
3	Rice Basmati. broken	Kg.	44.9	21.6	-1.0
4	Rice irri-6	Kg.	36.6	36.9	-0.3
5	Masur pulse washed	Kg.	129.1	68.2	-2.3
6	Moong pulse washed	Kg.	48.2	-7.8	-0.5
7	Mash pulse washed	Kg.	75.9	7.3	0.3
8	Gram pulse washed	Kg.	60.0	39.1	-2.2
9	Beef	Kg.	143.1	17.4	0.9
10	Mutton	Kg.	258.7	10.9	1.2
11	Egg hen (farm)	Doz.	58.0	6.3	-0.3
12	Bread plain	Each	24.4	29.6	2.9
13	Sugar	Kg.	38.8	63.4	8.2
14	Gur	Kg.	42.6	48.9	8.0
15	Milk fresh	Litr	36.2	22.2	1.0
16	Milk powdered Nido	400g	170.0	17.2	0.0
17	Curd	Kg.	43.1	23.8	0.5
18	Vegetable ghee tin	2.5k	329.8	2.8	-0.9
19	Vegetable ghee loose	Kg.	100.0	-16.0	-1.2
20	Mustard oil	Kg.	142.5	6.0	-0.9
21	Cooking oil	2.5l	351.5	8.9	-0.1
22	Potatoes	Kg.	16.0	15.4	-17.4
23	Onions	Kg.	21.9	158.9	41.6
24	Tomatoes	Kg.	23.5	-19.3	26.7
25	Bananas	Doz.	34.7	8.8	3.2
26	Salt powdered	Kg.	6.1	19.1	2.8
27	Red chillies (powdered)	Kg.	135.8	-3.2	-2.0
28	Garlic	Kg.	43.4	-2.9	-3.9
29	Tea packet	250g	100.0	44.7	0.0
30	Tea (prepared)	Cup	8.5	22.7	1.9

continued

Table A8 (continued)

S.No	Items	Unit	Price Feb 09	Percentage change	
				YoY	Monthly
31	Cooked beef plate	Each	40.4	21.5	0.9
32	Cooked Dal plate	Each	25.8	26.4	0.3
33	Cigarettes k-2	10's	8.9	9.7	2.5
34	Coarse latha	Mtr.	45.2	15.4	0.0
35	Lawn (average .quality)	Mtr.	89.9	11.4	-0.3
36	Voil printed	Mtr.	45.5	15.8	0.0
37	Shirting	Mtr.	79.4	10.4	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	50.4	-0.5
42	Firewood	40kg	268.7	16.5	0.5
43	Elec. Bulb 60-wats	Each	14.5	15.6	3.2
44	Match box	Each	1.0	0.0	0.0
45	Washing soap	Cake	12.6	24.3	0.6
46	Bath soap lifebuoy	Cake	22.0	21.3	0.0
47	Chicken (farm)	Kg.	92.5	54.2	23.9
48	Gas chrg. All clb. Comb	D.mmbt	273.7	22.0	6.7
49	L.P.G .(cylinder 11kg.)	Each	844.2	4.3	-2.0
50	Elec.chrg.all slabs comb	Bd. Unit	6.8	32.4	0.0
51	Petrol	Litr	58.3	8.3	0.0
52	Diesel	Litr	57.7	52.4	0.0
53	Telephone local	Call	2.4	4.8	0.0
Maximum				158.9	41.6
Median				17.4	0.0
Minimum				-19.3	-17.4

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

Item and Specification	Weights	Index	
		Feb-08	Feb-09
GENERAL	100.0006	158.50	191.90
FOOD & BEVERAGES.	40.3412	172.16	211.58
1 WHEAT	0.4830	201.66	285.59
2 WHEAT FLOUR	5.1122	174.40	260.43
3 MAIDA	0.1059	198.21	269.03
4 BESAN	0.1320	150.83	213.41
5 RICE	1.3369	222.68	287.18
6 PULSE MASOOR	0.2214	196.43	347.15
7 PULSE MOONG	0.2230	171.43	160.67
8 PULSE MASH	0.2017	155.43	167.87
9 PULSE GRAM	0.4272	146.30	206.18
10 GRAM WHOLE	0.1491	136.89	183.30
11 MUSTARD OIL	0.0456	232.46	257.68
12 COOKING OIL	0.6858	200.38	220.41
13 VEGETABLE GHEE	2.6672	231.04	216.94
14 SUGAR	1.9467	93.56	153.09
15 GUR	0.0735	119.18	176.46
16 TEA	1.2559	112.22	160.32
17 MILK FRESH	6.6615	172.65	211.32
18 MILK POWDER	0.1105	175.38	204.52
19 MILK PRODUCTS	0.5607	156.64	196.68
20 HONEY	0.0358	133.24	187.99
21 CEREALS	0.0878	164.69	229.50
22 JAM,TOMATO,PICKLES & VINEGAR	0.2472	140.37	163.83
23 BEVERAGES	0.7286	142.34	162.64
24 CONDIMENTS	0.3392	161.62	241.60
25 SPICES	0.6008	167.34	210.22
26 DRY FRUIT	0.2760	243.91	309.89
27 BAKERY & CONFECTIONARY	2.9837	127.53	143.67
28 CIGARETTES	0.9527	158.57	180.30
29 BETEL LEAVES & NUTS	0.1851	148.51	171.80
30 READYMADE FOOD	1.6833	180.69	220.07
31 SWEETMEAT & NIMCO	0.3846	182.53	223.69
32 FISH	0.2703	153.87	189.31
33 MEAT	2.6981	225.30	260.14
34 CHICKEN FARM	0.9158	142.28	217.06
35 EGGS	0.4119	219.28	225.56
36 POTATOES	0.5931	121.31	142.29
37 ONIONS	0.6362	108.79	258.24
38 TOMATOES	0.4958	224.12	159.64
39 VEGETABLES	1.7998	200.44	171.95
40 FRESH FRUITS	1.6156	167.95	197.23
APPAREL, TEXTILE & FOOTWEAR.	6.0977	133.42	153.92
41 COTTON CLOTH	1.6197	136.38	155.92
42 SILK,LINEN,WOOLEN/CLOTH	0.5766	135.52	152.43
43 TAILORING CHARGES	0.8636	137.40	161.79
44 HOSIERY	0.1528	143.72	164.79
45 READYMADE GARMENTS	1.2038	127.55	141.07
46 WOOLEN READYMADE GARMENTS	0.1485	155.82	177.78
47 FOOTWEAR	1.5327	128.66	154.64
HOUSE RENT.	23.4298	156.25	185.20
48 HOUSE RENT INDEX (Combined)	23.4298	156.25	185.20

(continued)

(continued)

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

Item and Specification	Weights	Index	
		Feb-08	Feb-09
FUEL AND LIGHTING.	7.2912	160.45	208.21
49 KEROSENE	0.1366	276.35	387.99
50 FIREWOOD	0.4778	250.96	302.95
51 MATCH BOX	0.1301	100.00	200.00
52 BULB & TUBE	0.1311	93.52	102.82
53 ELECTRICITY	4.3698	119.53	159.21
54 NATURAL GAS	2.0458	227.12	286.02
H.HOLD.FURNITURE & EQUIPMENT ETC.	3.2862	141.41	162.17
55 UTENSILS	0.3690	127.62	148.73
56 PLASTIC PRODUCTS	0.1055	150.33	190.62
57 SUITCASE	0.0470	131.28	156.60
58 HOUSE HOLD EQUIPMENTS	0.0953	126.13	144.07
59 FURNITURE (Ready Made)	0.3054	144.20	173.38
60 FURNISHING	0.6362	136.94	154.75
61 ELECT.IRON FANS & WASHING MACHINE	0.1889	128.11	164.43
62 SEWING MACHINE,CLOCK AND NEEDLES	0.1270	120.24	140.47
63 REFRIGERATOR & AIRCONDITIONER	0.1756	102.62	127.73
64 MARRIAGE HALL	0.0445	158.65	186.97
65 HOUSE HOLD SERVANT	1.1918	157.63	172.67
TRANSPORT & COMMUNICATION.	7.3222	153.15	186.04
66 PETROL	1.7253	192.05	189.71
67 DIESEL	0.2070	260.92	362.66
68 CNG. FILLING CHARGES	0.1649	153.67	205.46
69 SERVICE CHARGES	0.3835	138.49	163.34
70 VEHICLES	0.2596	102.73	134.32
71 TYRE & TUBE	0.2831	129.67	157.82
72 TRANSPORT FARE/CHARGES	2.1236	176.01	252.36
73 TRAIN FARE	0.1514	170.01	253.24
74 AIR FARE	0.0983	280.47	342.93
75 COMMUNICATION	1.9255	86.82	91.31
RECREATION & ENTERTAINMENT.	0.8259	106.34	121.25
76 RECREATION	0.3399	101.91	131.89
77 ENTERTAINMENT	0.4860	109.44	113.83
EDUCATION.	3.4548	139.60	164.68
78 TUTION FEES	2.3629	145.58	165.55
79 STATIONERY	0.3500	131.43	169.14
80 TEXT BOOKS	0.6894	127.69	165.52
81 COMPUTER & ALLIED PRODUCTS	0.0525	81.52	84.57
CLEANING LAUNDRY & PER.APPEARANCE.	5.8788	141.52	167.37
82 WASHING SOAP & DETERGENT	1.5535	128.48	161.64
83 TOILET SOAP	0.7436	161.07	186.50
84 TOOTH PASTE	0.4036	108.92	113.13
85 SHAVING ARTICLES	0.3480	121.35	146.70
86 COSMETICS	1.4272	128.86	149.94
87 WATCHES	0.0552	128.62	138.22
88 JEWELLERY	0.3936	259.38	319.00
89 LAUNDRY CHARGES	0.2207	152.65	179.11
90 HAIR CUT & BEAUTY PARLOUR CHARGES	0.7334	135.87	150.94
MEDICARE.	2.0728	131.34	149.97
91 DRUGS & MEDICARES	1.0752	108.19	117.80
92 DOCTOR'S FEE	0.9976	156.29	184.63

Figure A1: CPI Non-food Inflation

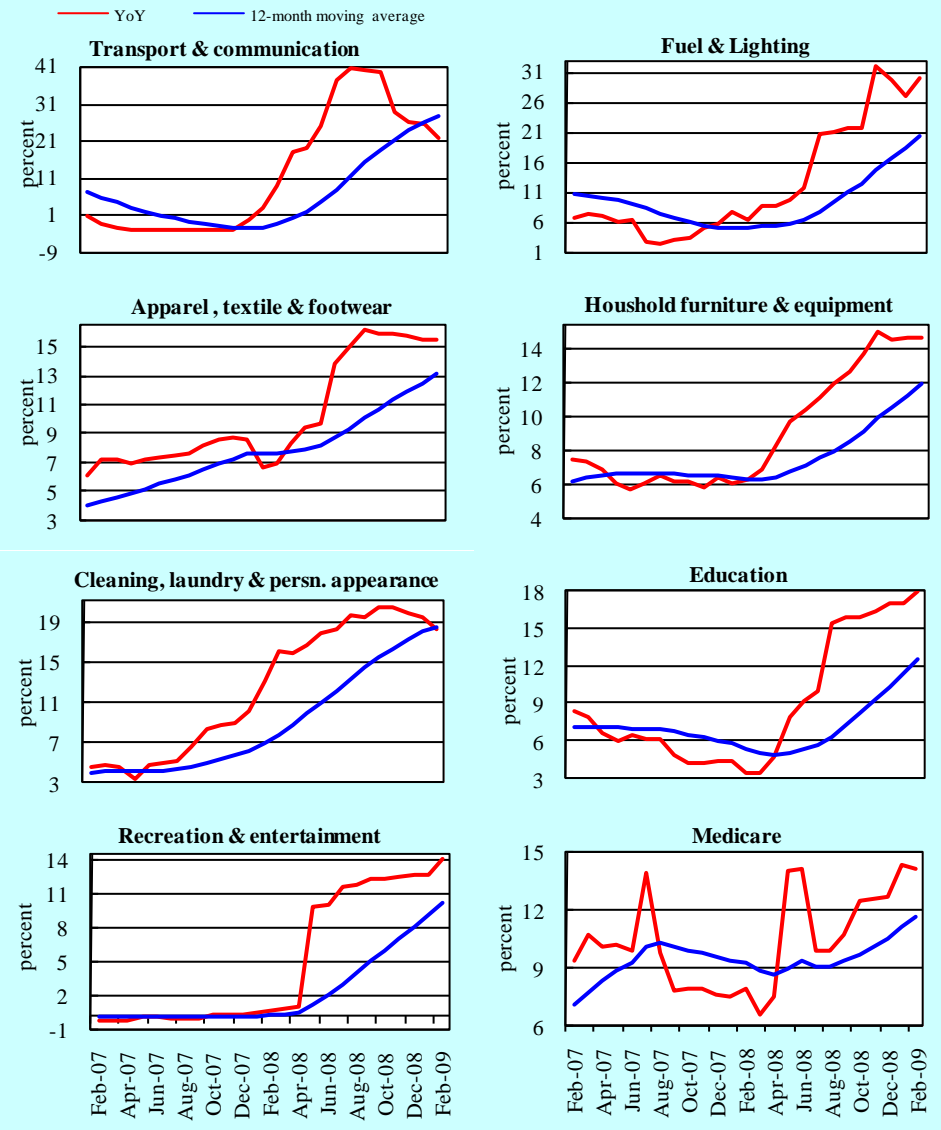


Figure A2: Frequency Distribution of Price Changes of CPI Items, February 2009

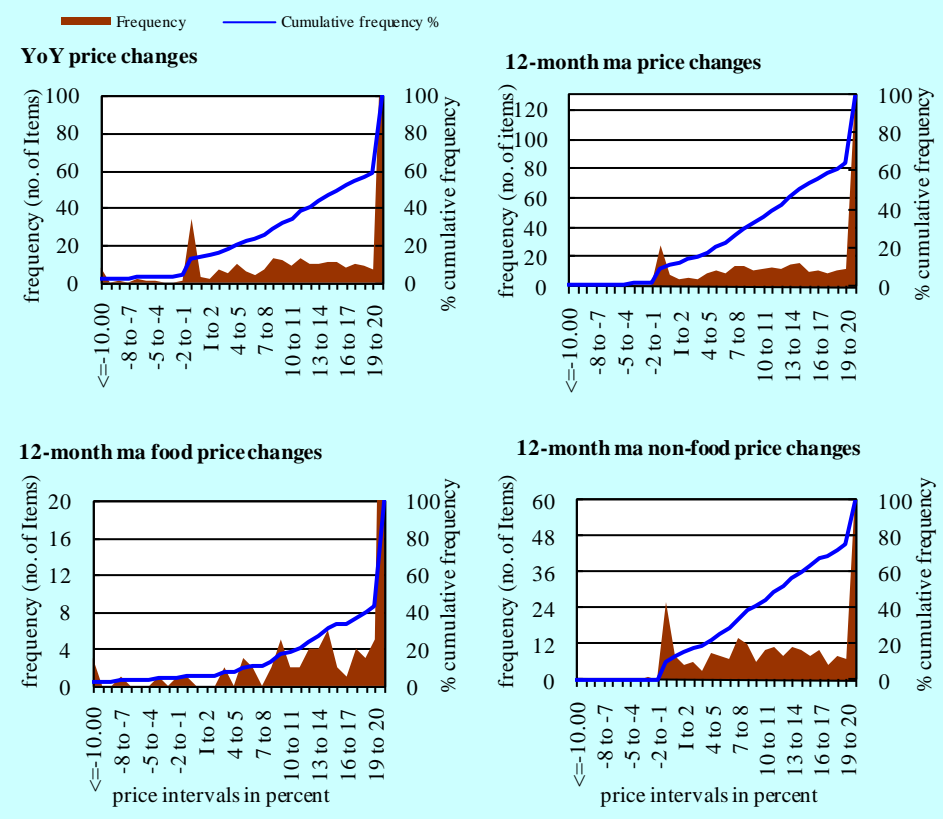
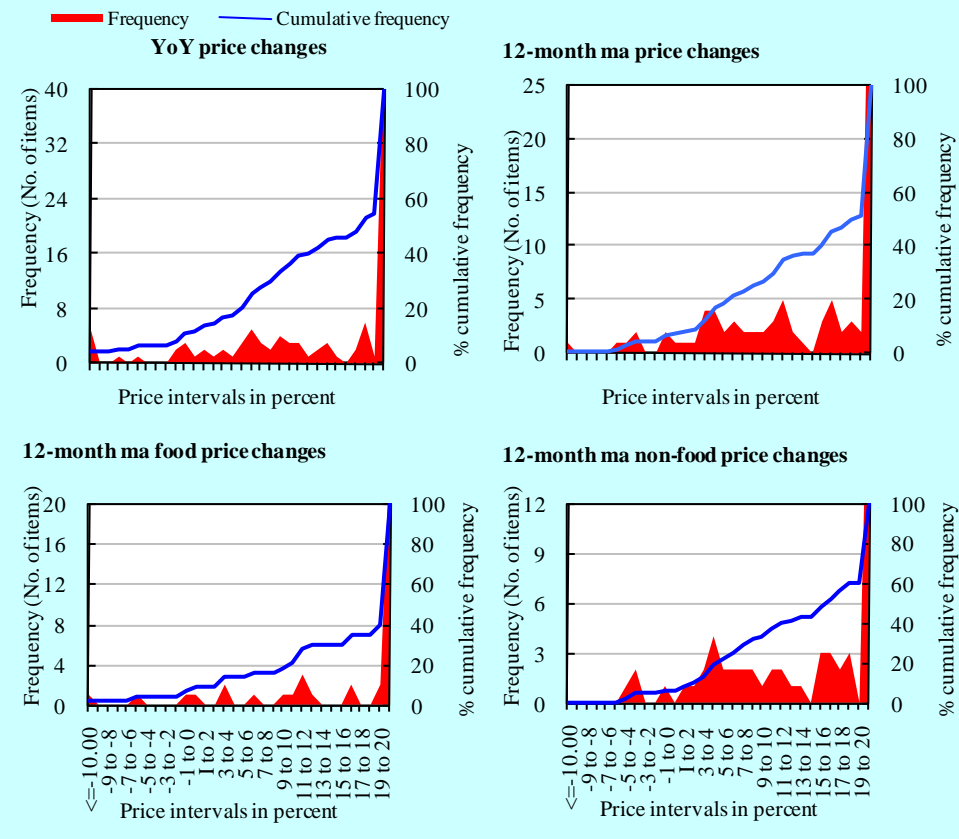


Figure A3: Frequency Distribution of Price Changes of WPI Items, February 2009



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