

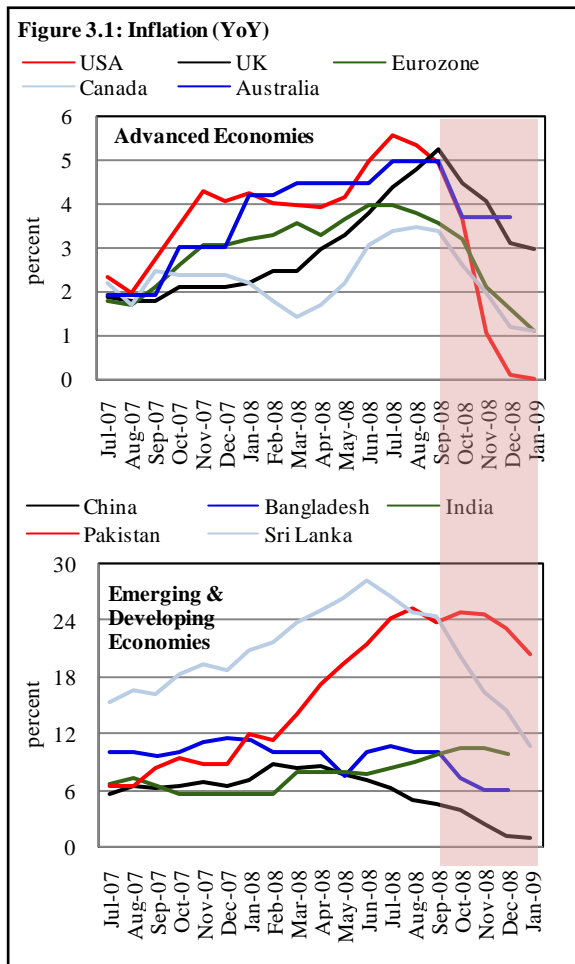
# 3 Prices

## 3.1 Global Inflation Scenario

Inflationary pressures have eased significantly in almost all economies since October 2008 (see **Figure 3.1**), mainly due to a deepening global economic recession. The turmoil in the international credit markets has particularly hit consumer demand in the advanced countries, and the resulting slowdown in aggregate demand is compounding the impact of the declining credit availability, with negative spillovers for the entire global economy.

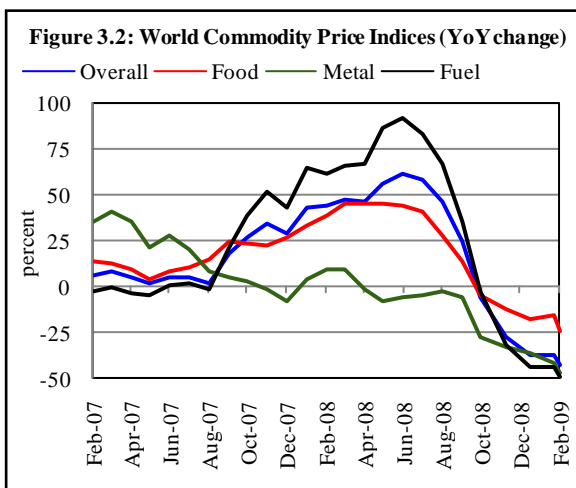
This is clearly seen in the sharp decline in key commodity prices. While the decline in oil, fuel and metal prices is principally attributed to ease in global demand for these commodities, the fall in food commodity prices is mainly due to: (1) increased supply, as farmers brought more area under cultivation to materialize the gains of higher prices of these commodities, as well as, (2) a sharp downturn in oil prices which made bio-fuels less attractive as a substitute of oil.

The pace of the downtrend is surprisingly strong. For example, the IMF Commodity Price Index, is down by 55.4 percent from peak level reached in July



2008. Moreover, oil prices<sup>1</sup> alone have fallen sharply by 68.5 percent after reaching their monthly peak of US\$ 132.5 per barrel in July 2008.

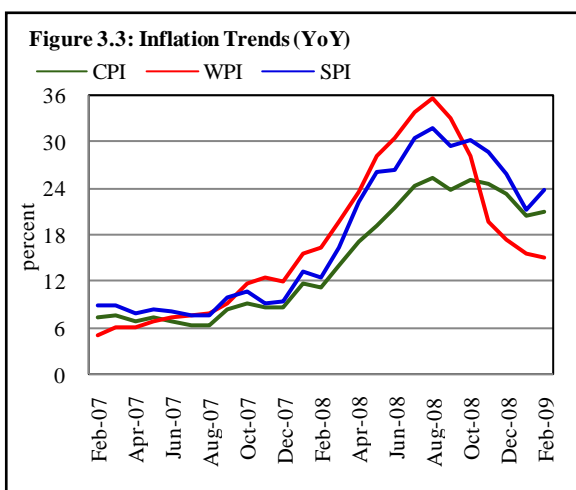
Declining commodity prices have had varying effects on different economies of the world. The plummeting fuel prices benefitted oil importing countries, particularly those with high oil consumption (this is generally the case for advanced economies). On the other hand, oil exporting countries have been severely hurt by the unexpected decline in oil prices. Similarly, net importers of grains, mostly developing countries, are benefitting from a decline in commodity prices and are now better placed to overcome macroeconomic imbalances that emerged as a result of the earlier steep rise in commodity prices.



Similarly on the policy front, concerns over growth and the possibility of a deflationary spiral have pushed central banks around the world to ease monetary policy and the governments are introducing fiscal stimulus packages to shore up the financial sector in order to boost demand.

### 3.2 Domestic Scenario

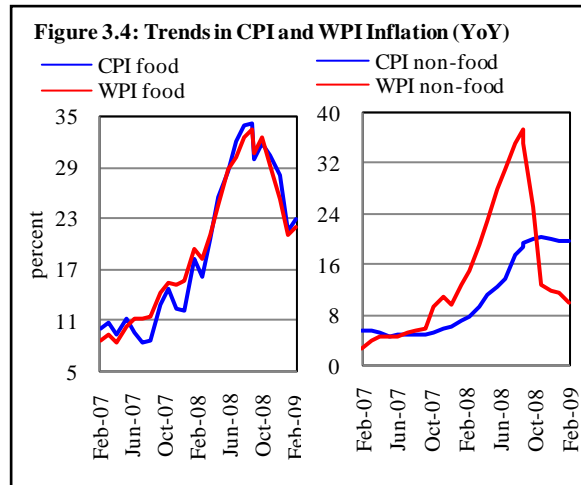
Although the disinflationary process in Pakistan has proved to be relatively slow, the



<sup>1</sup> Oil prices represented by simple average of three spot prices; Dated Brent, West Texas Intermediate, and the Dubai Fateh as reported by IMF.

underlying inflationary pressures have started retreating from Q2-FY09. All price indices i.e. CPI, WPI and SPI, witnessed a clear downtrend in recent months (see **Figure 3.3**).

The relative slowdown in domestic inflation since September 2008 was mainly driven by the deceleration in domestic food inflation as exhibited by the food groups of both CPI and WPI. While WPI non-food inflation dropped in tandem with international commodity prices, CPI non-food inflation showed stubbornness upto Feb-2009 (see **Figure 3.4**).



This difference in the trends of the two inflation indices is because: (1) pass through of declining global fuel and commodity prices to the wholesale prices has been quicker as compared to the retail prices. This is mainly because prices of most items included in the WPI basket are based on international prices,<sup>2</sup> (2) the impact of decreases in prices of manufacturing inputs such as cotton and metals is fully reflected in the WPI non-food, whereas CPI non-food group exhibits their partial effect as CPI non-food items also incorporates labor wages which are impacted by second-round effects of persistent rise in cost of living, and finally (3) about 40 percent of CPI non-food constitutes of house rent index (HRI) which is being estimated by using 24-month geometric mean, which makes this large component relatively inflexible. Given that WPI non-food inflation has shown persistent downtrend, it is expected that it may also help bring down retail prices in the coming months.

It is important to note that a continued tight monetary stance of the central bank helped contain CPI non-food inflation, which is also evident from a substantial gap between WPI and CPI non-food inflation during most of 2008 (see **Figure**

<sup>2</sup> e.g. items like furnace oil, metals etc are reported in WPI but not in CPI, and these are linked with international prices.

3.4)<sup>3</sup>. The impact of continued tight monetary posture also yield dividend in terms of a relative ease in core inflation numbers during recent months.

Core inflation measured by 20 percent trimmed mean registered below 21 percent in January and February 2009 for the first time since July 2008 (see **Table 3.1**). It indicates a relative ease in inflationary expectations in the economy. Similarly, core inflation measured by Non-food Non-energy (NFNE) is hovering around 18.8 percent since October 2008, showing resilience in inflationary pressures. In fact, firmness in the NFNE measure of core inflation has been supported by a continued rising house rent index (HRI) during the recent months.<sup>4</sup>

**Table 3.1: Inflation Trends**  
percent

	<u>Year-on-Year<sup>1</sup></u>			<u>12-month moving average<sup>2</sup></u>		
	Feb 08	Peak value	Peak month	Feb 09	Feb 08	Feb 09
<b>CPI</b>	11.3	25.3	Aug 08	21.1	8.4	21.7
<i>Food</i>	16.0	34.1	Aug 08	22.9	12.1	28.2
<i>Non-food</i>	7.8	20.2	Nov 08	19.6	5.7	16.8
<b>WPI</b>	16.4	35.7	Aug 08	15.0	10	25
<i>Food</i>	18.3	33.5	Aug 08	22.0	13.5	27.6
<i>Non-food</i>	15.0	37.4	Aug 08	9.8	7.6	23
<b>SPI</b>	12.3	31.8	Aug 08	23.9	9.4	26.1
<b>Core</b>						
<i>NFNE<sup>3</sup></i>	8.1	18.9	Feb 09	18.9	6.4	15.7
<i>Trimmed mean</i>	9.6	21.7	Oct 08	20.8	8.2	18.9

<sup>1</sup>e.g. change in Feb 2009 over Feb 2008

<sup>2</sup>e.g. change in 12-month average of Feb 2009 over Feb 2008

<sup>3</sup>Non-food non-energy

Source: Federal Bureau of Statistics

It is important to note that an uptick in headline CPI inflation during February 2009, principally driven by a rise in food inflation, is not surprising. Generally, wheat prices decline during February each year due to pre-harvest seasonal impact. However, this year wheat prices did not decline as domestic prices are already aligned with the procurement price for FY09 wheat crop. This irregularity

<sup>3</sup> Prices of most of the WPI items are based on international prices or determined by market forces. However, a weaker pass through to CPI non-food exhibits stress in demand stemming from monetary policy.

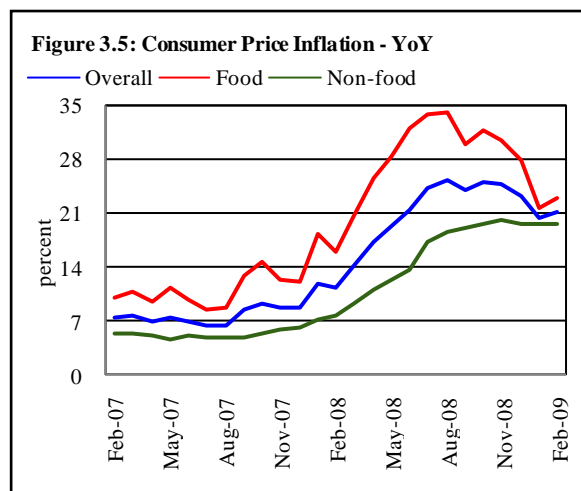
<sup>4</sup> HRI has 23.4 percent weight in overall CPI basket and a dominating 45.9 percent weight in core inflation (NFNE). HRI inflation accelerated to 18.5 percent (YoY) in February 2009 compared to 12.4 percent in June 2008.

in wheat prices is reflected in higher food inflation during the month. However, food inflation is likely to decelerate at a faster pace from April onward when the impact of a bumper wheat and rice crops is likely to translate into lower consumer prices.

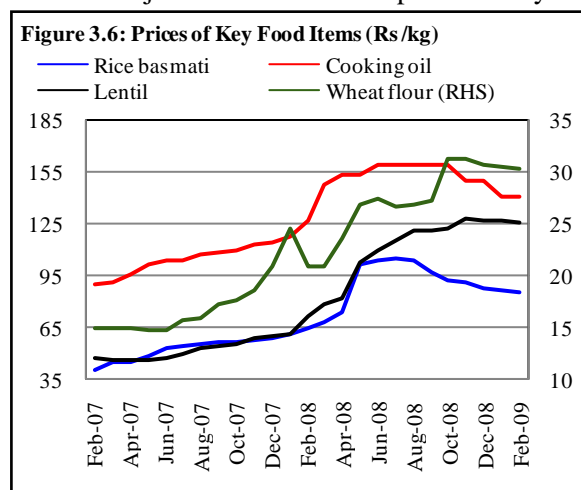
### 3.3 Consumer Price Index (CPI)

After showing a continuous acceleration since March 2008, CPI inflation (YoY) started easing from November 2008 and reached 21.1 percent in February 2009 as against a peak of 25.3 percent in August 2008. However, this inflation is higher compared to 20.5 percent in the preceding month and 11.3 percent in the same month last year.

The recent downturn in CPI inflation was mainly due to a relative ease in food inflation that has dropped from 34.1 percent in August 2008 to 22.9 percent by February 2009 (see **Figure 3.5**). Encouragingly, CPI non-food inflation (YoY) showed a slight decline for the third consecutive month and recorded at 19.6 percent in February 2009 compared with a peak of 20.2 percent in November 2008 and 7.8 percent in February 2008.

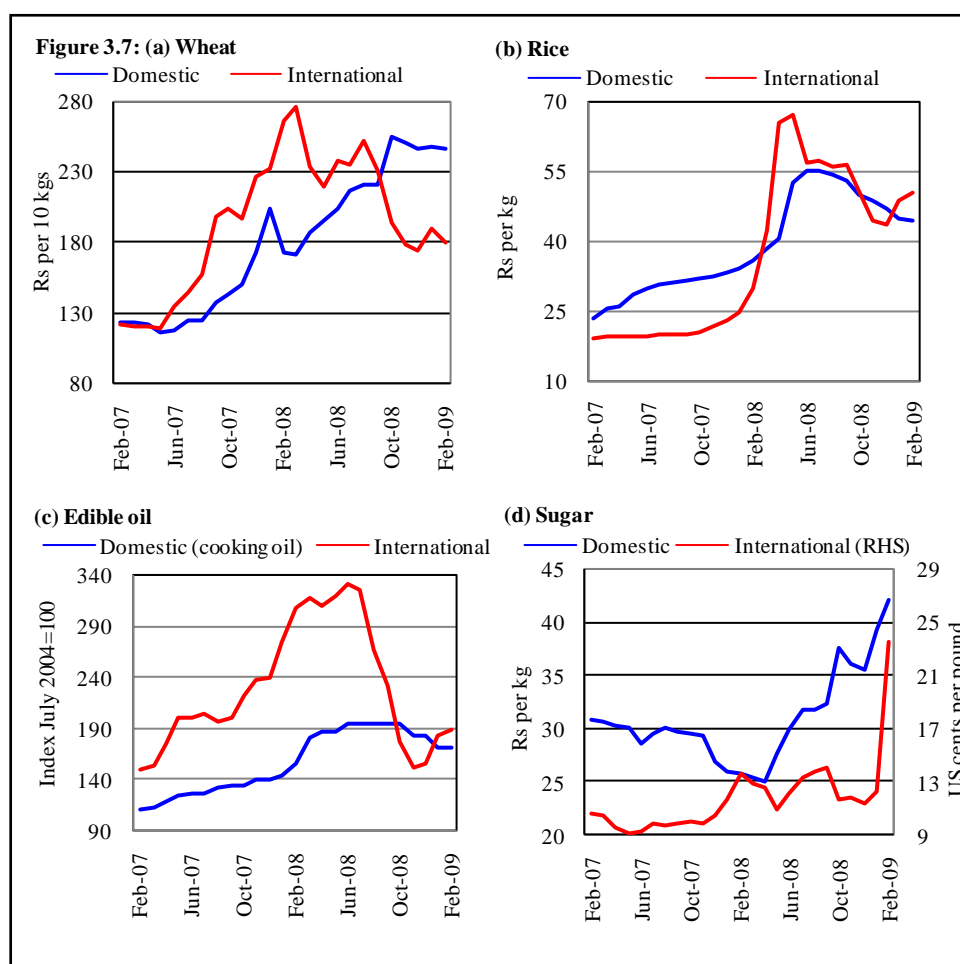


It is imperative to note that the downward adjustment in domestic prices of key fuels in response to a decline in international oil prices is likely to further ease non-food inflation in months ahead. Moreover, given a significant decline in metal and other construction material prices, HRI is also likely to see a reversal in its rising trend going forward. Consequently, CPI non-food inflation would decelerate sharply.



### 3.3.1 CPI Food Inflation

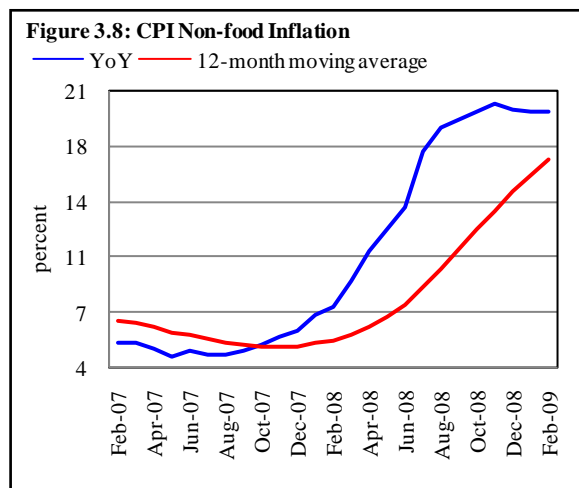
CPI food inflation started decelerating from September 2008 after reaching a three decade high of 34.1 percent YoY in August 2008 and reached 22.9 percent YoY in February 2009. The prices of some key staples either showed a decline or stabilized in recent months (see **Figure 3.6 and 3.7**). More importantly, the pace of decline of food commodity prices is slower than the downtrend in international market, which points towards specific domestic factors or market structure issues. It is notable that a part of the gains was offset by the depreciation of the rupee during 2008.



In the case of wheat, the current ease in price level was mainly due to improved supply due to: (1) aggressive import of the wheat, (2) decline in illegal cross

border movement of the grain as lower international prices eroded incentives, and (3) anticipation of a bumper crop as farmers cultivated more area (due to higher support price and support from favorable weather). It is important to note that the procurement target of 6.5 million tons of wheat would be challenging for the government given (1) inadequate storage capacity with the public sector as a sufficient stock of imported wheat is also available, and (2) in case of substantially lower international wheat prices,<sup>5</sup> domestic prices are also likely to ease further. In any case, government is likely to incur a cost. In case of aggressive procurement, wastage and losses are likely due to improper storage, and in case of latter government would have to extend a very large subsidy on the issue price to dispose of available stocks. Large-scale procurement operations would also reduce liquidity in the banking system. To avoid downward pressures on wheat prices (which is important to protect farmers and achieve repeat bumper harvests in FY10 onwards), it would be imperative to keep a strict check on smuggling of wheat and leakages from Afghan Transit Trade.

In case of edible oil and rice there is a risk of renewal of upward pressures on domestic prices due to recent gains in international prices.<sup>6</sup> Similarly domestic price of sugar is likely to increase in months ahead due to lower domestic production in the season and speculative hoarding of the commodity. The country is likely to face a shortfall of around 0.4 million tons of sugar during FY09, which may increase further due to higher usage of sugarcane for gur manufacturing. However, the decision by the State Bank of



<sup>5</sup> Wheat prices eased in international markets following an above expected wheat harvest estimates in Australia coupled with improved prospects for wheat crop in Argentina and some parts of wheat growing regions in China as a result of rains in these areas (source [www.bloomberg.com](http://www.bloomberg.com)).

<sup>6</sup> International rice prices have recovered recently, indicating renewed pressures due to Thailand - Vietnam agreement on fixation of rice export price.

Pakistan to impose 50 percent cash margin for financing against sugar stocks is likely to discourage hoarding of sugar and restrict surge in sugar prices.

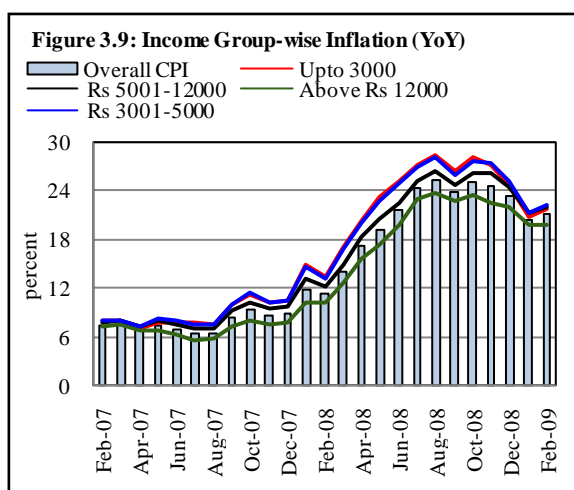
### 3.3.2 CPI Non-food Inflation

CPI non-food inflation started accelerating from H2-FY08. This trend has continued in FY09 and CPI non-food inflation has remained around the 20 percent YoY mark since September 2008 (see **Figure 3.8**).

The persistence in CPI non-food inflation (YoY) was contributed by all sub-indices in the non-food group as they have recorded double digit YoY inflation since September 2008 (see **Table 3.2**). In particular *house rent index* (HRI) has maintained an uptrend throughout FY09 reflecting the impact of increases in the prices of construction materials. Amongst other sub-groups, the *transport & communication* sub-index has shown the highest variability in FY09. This sub-index rose by 40.5 percent YoY in August 2008 before decelerating to 21.5 percent by February 2009. The initial increase in this sub-group was due to an upward price adjustment of key fuels and subsequent rise in transportation charges. However, downward adjustment in fuel prices and a slight decline in some transportation charges in response to a decline in

**Table 3.2: CPI Inflation (YoY) by Groups**

	Weight	Jul-08	Sep-08	Jan-09	Feb-09
<b>Non-Food Group</b>	<b>59.7</b>	<b>17.3</b>	<b>19.2</b>	<b>19.7</b>	<b>19.6</b>
Apparel, textile	6.1	13.8	16.1	15.4	15.4
House rent	23.4	13.3	15	18.2	18.5
Fuel & lighting	7.3	20.5	21.5	26.9	29.8
Household furniture	3.3	11.1	12.7	14.6	14.7
Transport & com	7.3	37.2	39.9	25.2	21.5
Recreation & entert	0.8	11.5	12.2	12.6	14.0
Education	3.5	10.0	16.0	17.1	18.0
Cleaning, laundry	5.9	18.2	19.3	19.4	18.3
Medicare	2.1	9.8	10.7	14.4	14.2
<b>Overall CPI</b>	<b>100</b>	<b>24.3</b>	<b>23.9</b>	<b>20.5</b>	<b>21.1</b>





international fuel prices are the major contributory factors helping in the downward movement of *transport & communication* sub-index.

### 3.3.3 Incidence of inflation:

Income group-wise inflation during FY09 shows that the highest incidence of inflation has remained on the lowest income group. All income groups, except the highest income group (with earnings above Rs 12000), recorded higher inflation incidence than the overall CPI inflation (see **Figure 3.9**). However, the difference in inflation between the highest income group and lower income groups during the initial five months of FY09 has narrowed down since December 2008. This is because of a relative decline in food inflation which is normally expected to bring relief in inflationary pressures for the lower income groups, given that staple food accounts for a greater proportion of their total expenditure.

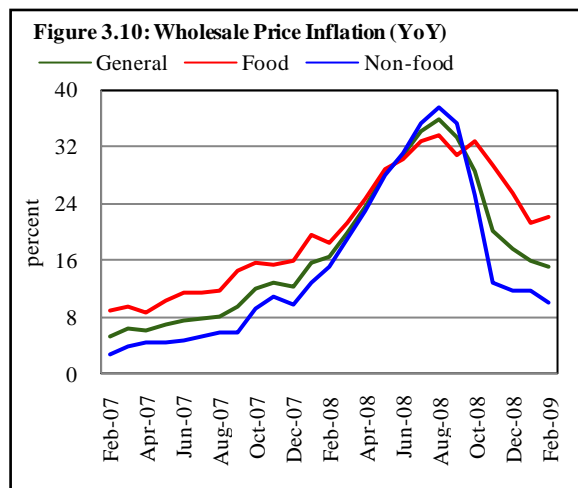
**Table 3.3: City-wise Inflation of Selected Cities**

percent	Nov-08	Dec-08	Jan-09	Feb-09
<b>Overall CPI</b>	<b>24.7</b>	<b>23.3</b>	<b>20.5</b>	<b>21.1</b>
Islamabad	21.0	20.9	19.0	18.4
Lahore	22.5	21.8	18.9	18.1
Karachi	24.2	23.7	20.7	22.2
Quetta	26.9	26.5	23.2	25.1
Peshawar	27.8	26.8	22.8	23.9

City-wise inflation data revealed that the inflation (YoY) in major cities, after declining from October to January FY09 picked up again in three out of five major cities during February 2009 (see **Table 3.3**).

### 3.4 Wholesale Price Index

After reaching the highest level of 35.7 percent YoY in August 2008, wholesale price index (WPI) inflation showed a sharp deceleration and reached 15.0 percent YoY in February 2009. This deceleration was evident in both food and non-food group inflation (see **Figure 3.10**). WPI food inflation YoY reached 22.0 percent during February 2009 compared to 33.5 percent in August 2008. Similarly, WPI non-food group inflation also showed significant decline after September 2008 and was



recorded at 9.8 percent during February 2009 compared to its peak of 37.4 percent in August 2008. All sub-indices of the non-food group have shown a decline in YoY inflation during the same period, however, the decline in *fuel, lighting & lubricants* and *building material* sub-indices has been more significant.

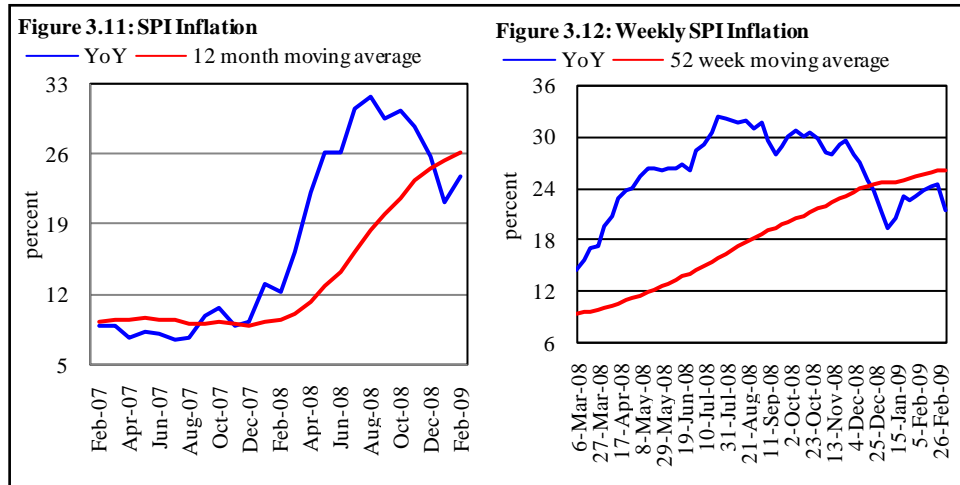
An analysis of the distribution of price changes (YoY) of the WPI basket shows that the share of items showing double digit increases is still high (see **Table 3.4**). This implies that (1) a sharp decline in WPI inflation is principally a reflection of the ease in the magnitude of the price increases as evident in the percent of items recording more than 50 percent inflation have decreased in the recent months (2) despite a substantial fall in WPI inflation, inflationary pressures in wholesale prices are still broad based.

**Table 3.4: Distribution of WPI Price Changes (YoY)**

percent of items	Above 50%	30-50%	10-30%	5% - 10%	<5%
Feb-08	11.3	10.4	18.9	14.2	45.3
Mar-08	8.5	14.2	21.7	16.0	39.6
Apr-08	13.2	12.3	25.5	14.2	34.9
May-08	16.0	9.4	31.1	16.0	27.4
Jun-08	17.9	9.4	35.8	14.2	22.6
Jul-08	21.7	10.4	35.8	13.2	18.9
Aug-08	20.8	16.0	31.1	17.0	15.1
Sep-08	20.8	17.0	33.0	16.0	13.2
Oct-08	17.9	19.8	34.0	15.1	13.2
Nov-08	12.3	21.7	37.7	14.2	14.2
Dec-08	8.5	24.5	38.7	15.1	13.2
Jan-09	6.6	20.8	40.6	15.1	17.0
Feb-09	7.5	22.6	36.8	15.1	17.9

### 3.5 Sensitive Price Indicator (SPI)

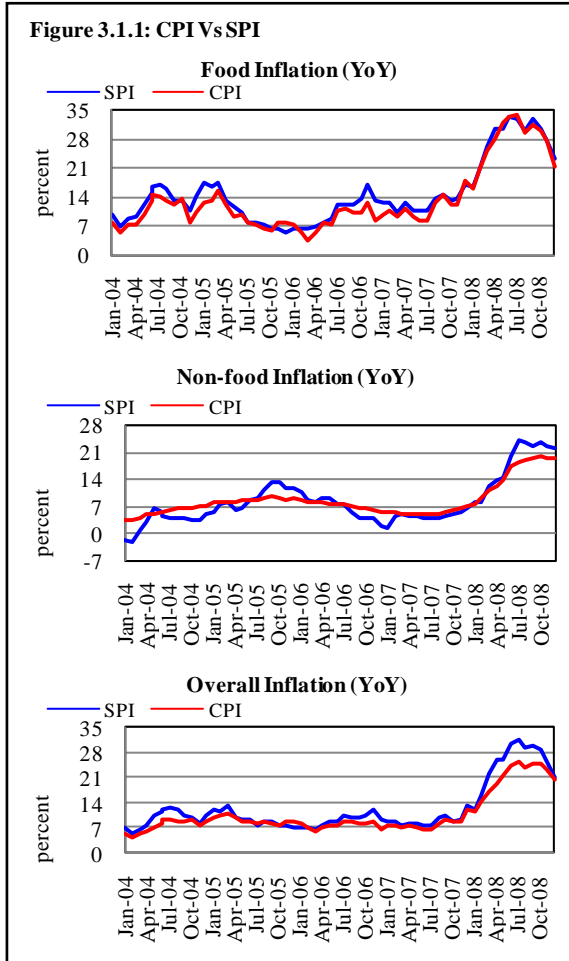
Following the trend of CPI and WPI, the sensitive price indicator (SPI) has also showed deceleration since October 2008 and reached 23.9 percent (YoY) in February 2009. However, this level of SPI inflation is still high as compared to the same month last year (see **Figure 3.11**). Weekly SPI, on the other hand, after witnessing a gradual fall in inflation since November 2008 has witnessed an increase in inflation from the second week of January 2009 (see **Figure 3.12**). However, a decrease in YoY inflation was witnessed in the first week of March 2009.



**Box 3.1: Can movements in SPI Predict CPI?**

Assessment of CPI inflation plays a key role in decision making process of central banks. At times when inflation turns out to be high and volatile, the inflation projections based on econometric models may provide estimate that deviates from the original trend. For this SPI – another measure of inflation – can provide some support as it is reported on weekly basis and is readily available at the end of every week. The selection of SPI as an alternative for projecting CPI inflation is based on:

1. SPI items are subset of CPI basket;
2. Prices of SPI items are available on weekly basis (these items are also included in CPI basket); and
3. Out of total 53 items represented in the SPI, 34 fall under the category of food group while rest belong to non-food group;



As weights for SPI items are available, proxies for SPI food and non-food inflation can be calculated which can form necessary assessment of food and non-food components of CPI inflation.

**The link between SPI and CPI inflation (YoY)**

Graphical presentation of CPI and SPI inflation (YoY) shows that both are following a similar trend. Food and non-food SPI inflation can be used to project trend in CPI and SPI food inflation. The graph highlights the closeness in CPI and SPI food inflation, however there are some deviations in case of CPI and SPI non-food inflation (see **Figure 3.1.1**). This might be due to the presence of very limited number of items in SPI (only 19 non-food items in SPI compared to 250 non-food items in CPI basket).

Interdependence between SPI and CPI inflation is also visible from the correlation matrix. Overall CPI and SPI food inflation depicts strong positive correlation with overall SPI and SPI food inflation (see **Table 1**).

**Table 1: Correlation Matrix YoY - Inflation**

	SPI food	SPI non-food	SPI
CPI food	0.98	0.73	0.98
CPI non-food	0.76	0.97	0.90
CPI	0.93	0.88	0.98

An analysis of 61 months consecutive inflation data for CPI and SPI verifies strong correlation (see **Table 2**). The above analysis portrays a clear picture about the co-movement of inflation not only for overall CPI and SPI but also for food and non-food groups and can thus support in providing better projections of inflation trends.

**Table 2: Frequency of Movements in SPI and CPI (YoY Inflation)**

	Food	Non-food	Overall
Same direction	48	43	52
Opposite direction	13	18	9
Total observations	61	61	61