3 Prices

3.1 Overview

Inflationary pressures eased during H1-FY10 resurged January 2010 onwards[1] (see **Figure 3.1**). Importantly, inflationary pressures largely emanated from non-core (food & energy) components. Rise in food and energy prices have strong second-round effects, therefore, core inflation is also likely to increase in months ahead. Inflation measured by both CPI and SPI is moving in a narrow range; evident from lower variability during Jan-Apr FY10.[2]

Figure 3.1: Inflation Trends

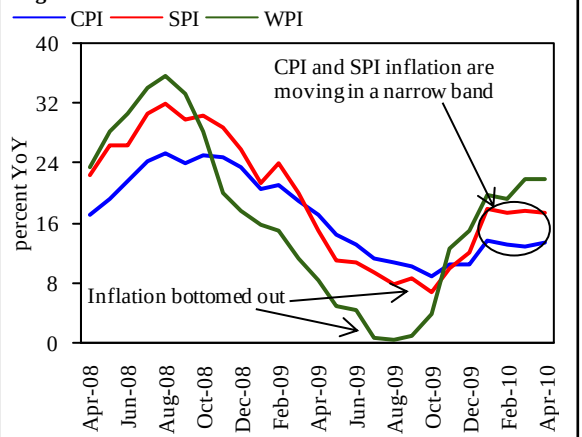
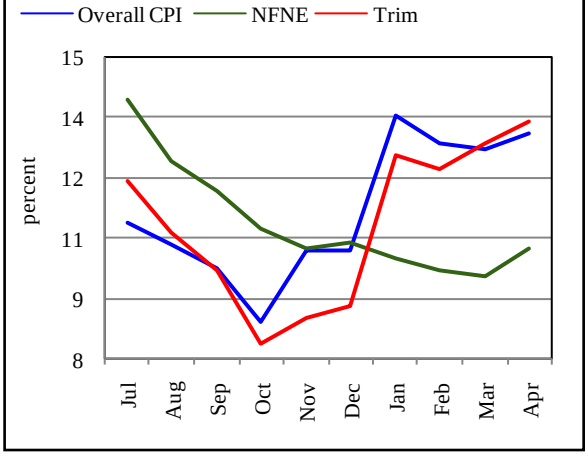


Figure 3.2: Inflation during FY10 (YoY)



Headline CPI inflation (YoY) rose to 13.3 percent by April 2010, slightly higher than 12.9 percent seen in the preceding month, but significantly higher than the short-term low of 8.9 percent in October 2009. Core inflation measured by 20% trimmed mean is in the trajectory of headline CPI inflation (see **Figure 3.2**). However, core inflation measured by non-food non-

[1] Average CPI inflation was 10.3 percent during H1-FY10, rose to 13.2 percent in the third quarter of FY10.

[2] Standard deviation reduced to 0.4 during Q3-FY10 compared with 0.8 in H1-FY10 and 1.0 in Q3-FY09. A low standard deviation with high average inflation indicates persistence of inflation at high level.

energy (NFNE) was declining up to March 2010 and dropping to single digits, for the first time in 23 months. However, NFNE measure of core inflation also witnessed an uptick during April 2010, showing that inflationary pressures are strengthening (see **Table 3.1**). A resurge in NFNE and an unchanged trimmed mean indicate that inflationary pressures are broad-based and probably reflect second round effects of persistently high food and energy inflation in the economy during recent months.

Table 3.1: Different Dimensions of Inflation

percent YoY

	Apr-09	Mar-10	Apr-10
Overall CPI	**17.2**	**12.9**	**13.3**
Food group	17.0	14.5	14.5
Non-food group	17.3	11.6	12.2
HRI	18.9	12.0	11.2
WPI	**8.3**	**21.8**	**22.0**
Food group	17.2	16.3	15.2
Non-food group	1.8	26.5	27.7
SPI	**15.0**	**17.6**	**17.4**
Core inflation			
NFNE	**17.7**	**9.9**	**10.6**
NFNE excl. HRI	16.6	8.0	10.0
Trimmed	17.6	12.7	12.7
Trimmed excl. HRI	17.4	13.0	13.5

Increase in inflation in recent months is largely attributed to a number of factors, such as: (a) higher international commodity prices, particularly crude oil, metals, pulses and cotton; (b) upward adjustment in electricity tariffs and administered domestic fuel prices; (c) relatively poor harvests amid water shortages coupled with strong growth in exports of vegetables, fruits, livestock, etc.,[3] (d) expansionary fiscal stance; and (e) recovery in domestic economy as indicated by a 4.4 percent rise in LSM growth during Jul-Mar FY10 against a fall of 7.4 percent in Jul-Mar FY09.

Small resurgence in inflationary pressures was already anticipated given scheduled upward revisions in electricity tariff and pressures on international prices of crude oil. As elaborated in previous Monetary Policy announcement at end-March 2010, persistence of high inflation was one of the reasons that the central bank adopted a cautious monetary stance. Moreover, expansionary fiscal stance also infuses inflationary pressures. However, SBP was mindful of the fact that an increase in policy rate to curb inflationary pressures may hurt the recovery in manufacturing sector, which is in its initial stage. In this backdrop, SBP forecasts suggest that annual average headline CPI inflation will be slightly higher than estimated earlier, falling in the range of 11.5 – 12.5 percent during FY10.

[3] For details see Section 2.1 Performance of Agriculture Sector.

3.2 Consumer Price Index (CPI)

Headline CPI inflation (YoY) is hovering around 13 percent for the fourth consecutive month in April 2010 (see **Figure 3.3**). Although, CPI inflation at 13.3 percent by April 2010 is substantially lower than the 17.2 percent seen in April 2009, it remained at uncomfortably high level. Importantly, while inflation was sharply declining in the corresponding period, inflation is moving in a narrow range in recent months. This persistence in inflation is largely due to; (a) high-food inflation (see **Figure 3.4**); (b) upward adjustment in electricity tariffs; and (c) rise in the prices of key fuels. Upward pressures on CPI inflation are also evident from the fact that share of number of items registering double digit inflation during recent months has been increasing since November 2009 (see **Figure 3.5**). Most of the commodities witnessing higher increases in prices were from food and energy sub-groups. However, a rise in CPI non-food inflation from 11.6 percent in March 2010 to 12.2 percent in April 2010 is also contributed by; (a) impact of higher cotton prices on apparel & textiles; (b) rise in the prices of medicines; and (c) sharp upward revision in television license fee.

Figure 3.3: CPI Inflation (YoY)

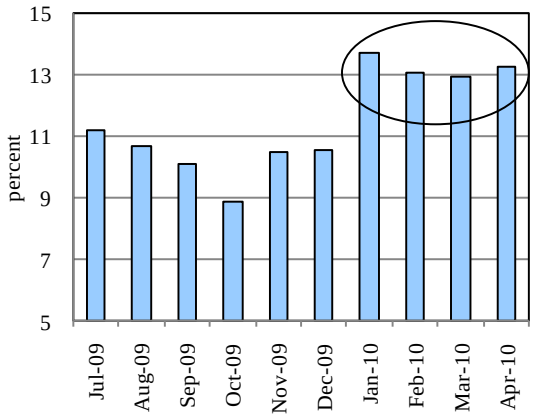
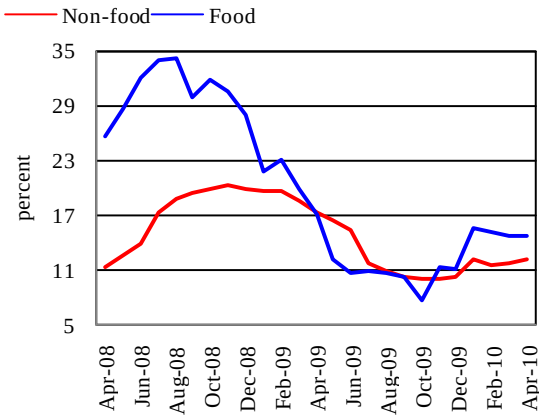


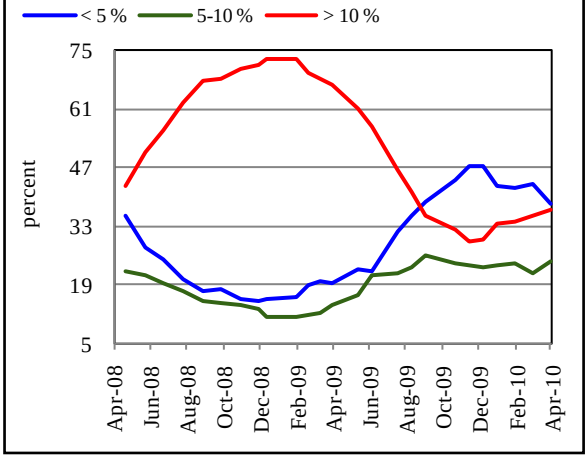
Figure 3.4: CPI Inflation (YoY)



At glance, **Table 3.2** reveals that major contribution in CPI inflation was from food and energy items. Out of top ten commodities contributing in CPI inflation during April 2010, six were from food group and three from energy group.

Combined weighted contribution of these food items[4] in overall CPI inflation was 32.1 percent. A very high contribution (9.6 percent) in food inflation is from wheat flour, which is mainly a function of government's pricing policy. While wheat price in international market plummeted, its impact on domestic market has not been fully realized. This is despite the fact that the country achieved bumper wheat harvest for the consecutive two years and ample domestic stocks.

Figure 3.5: Distribution of Price Changes (YoY)



On the other hand, domestic fuel prices are increasing due to rising international oil prices. It suggests that the government's involvement in price setting

Table 3.2: Weighted Contribution in CPI Inflation (YoY)

		Weights	Apr-08	Apr-09	Jul-09	Feb-10	Mar-10	Apr-10
1.	House rent index	23.4298	15.4	24.4	34.9	22.1	21.0	19.1
2.	Milk fresh	6.6615	8.7	6.7	10.4	8.1	8.7	9.2
3.	Meat	2.6981	1.5	3.7	4.9	5.5	6.4	6.6
4.	Electricity	4.3698	1.4	4.9	7.0	5.3	5.2	5.0
5.	Wheat flour	5.1122	15.8	9.9	7.9	9.6	9.8	4.8
6.	Sugar	1.9467	-1.5	4.8	4.9	7.4	6.1	4.6
7.	Petrol	1.7253	3.5	-2.1	-7.2	2.9	3.5	3.8
8.	Vegetables	1.7623	2.2	1.2	4.0	4.4	4.4	3.6
9.	Natural gas	2.0458	1.2	4.3	0.8	4.0	4.0	3.5
10.	Vegetable ghee	2.6672	10.5	-4.0	-6.1	2.8	3.0	3.3

mechanism is harmful for the consumers. It becomes more important when government is unable to extend subsidies to consumers due to either limited fiscal space or in compliance with IFIs. Reduction in subsidy on electricity is the case in point here. The combined impact of fuel and electricity charges on inflationary expectation cannot be underestimated. While a part of food inflation is due to significantly lower availability of vegetables and fruits, increased transportation cost is also responsible for rising food prices. In contrast, despite a downtrend,

[4] Having a total weight of 20.8480 percent in CPI basket.

house rent index (HRI) has continuously remained higher contributor in CPI inflation[5] due to its high weight.

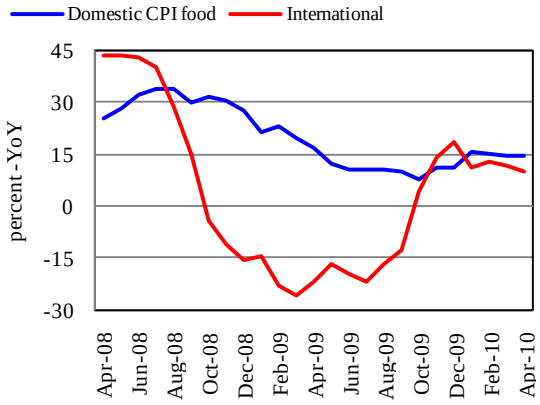
3.2.1 CPI Food Inflation

CPI food inflation bottomed out at 7.5 percent YoY in October 2009, has bounced back in double digits since then. Encouragingly, while it showed no change in April compared to March 2010, it remained at very high level of 14.5 percent. The impact of declines in the prices of sugar, wheat and some perishable commodities during April 2010 relative to the preceding month was offset by the increases in the prices of pulses, milk, rice, tomatoes and some beverages.

Domestic sugar prices retreated due to falling international prices since January 2010. International sugar prices plummeted due to increased production in Brazil and India.[6] However, going forward, sugar-importing countries are expected to make fresh purchases to replenish domestic stocks. Therefore international sugar prices are likely to rise again by mid 2010. In this background, it would be prudent to import adequate sugar to meet strong domestic demand in summer and holy month of Ramadan.

A recent moderation in wheat prices may not last long due to aggressive public procurement and possible export. A major contribution to CPI food inflation came from dairy & livestock products. A part of this rise is coming from increasing cost of transportation and fodder. However growing domestic as well as external demand is also instrumental in a continuous surge in the prices of meat and milk.

Figure 3.6: Domestic Food Inflation is Less Volatile



Source : IMF for international prices and FBS for CPI food

[5] HRI has the highest weight of 23.43 percent in CPI basket. The high contribution of HRI in CPI inflation is primarily due to its high rate in the consumer basket. Therefore, if the objective is to analyze inflation itself, then HRI contribution becomes less significant. Thus major drivers of inflation remain food and energy items.

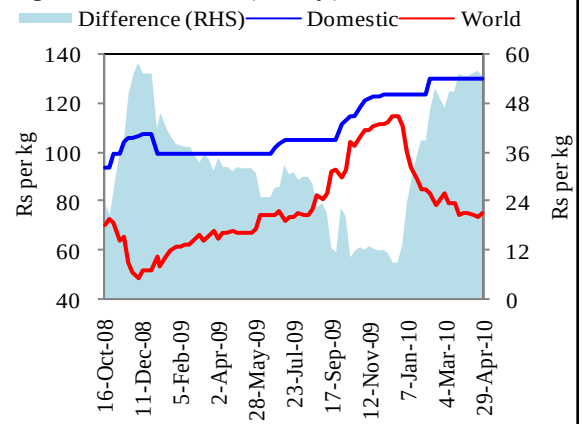
[6] Sugar output is estimated to increase by 17.0 percent YoY (from 33.1 to 38.7 million tons) in Brazil during 2010. Indian sugar output estimates have been gradually revised upward from 14.5 million tons to 18.5 million tons during 2010.

It is instructive to note that a sustained rise in the prices of some food commodities (e.g., milk & meat), nominal stickiness in domestic food prices, as well as, government intervention led to a lower volatility in domestic food inflation relative to highly volatile international food prices (see **Figure 3.6**). However, domestic food inflation remained higher most of the time, which implies that domestic consumers are paying the cost of: (a) lower productivity in some areas; (b) imperfect markets; and (c) government intervention in commodity prices. It has also been observed that domestic prices of most of the food items rise with the surge in their international prices. However, in case of a decline in international prices, the pass through is largely insignificant. For example, tea prices rose in international market during Q4-CY09 then came back to their normal levels by March 2010. In contrast, domestic tea prices are witnessing a continued uptrend (see **Box 3.1**). Price trends of sugar, wheat, rice, palm oil etc. also reveals similar story.

Box 3.1: Tea Prices

International tea prices surged above US$ 5.0/kg by end-October 2009 from its average of US$ 3.5/kg for the last one year (November 2008-October 2009). The departure from its normal range was mainly attributed to reduction in production due to drought in key tea producing countries, mainly Kenya. However, international tea prices peaked out at US$ 5.5/kg by end-December and retreated to their normal levels (US$ 3.6/kg) by end-April 2010 after improvement in weather conditions.

Figure 3.1.1: Tea Prices (Weekly)



Source: Bloomberg, The Public Ledger

Domestic tea prices also responded to rise in international prices, almost immediately. However, despite a significant downward correction in international prices, domestic tea prices continued to rise in recent weeks (see **Figure 3.1.1**). A part of adjustment in domestic tea prices is justified given rise in electricity tariff, transportation cost and pressures on wages. However, these components have very small share in cost of tea supplied in the domestic markets. The disappointment here is that the domestic tea prices did not see any correction, rather the uptrend is continued.

A plausible justification of accumulated inventory can be made. However, if traders enjoyed inventory gains when international tea prices were rising (Oct-Dec 2009), a continued rising trend in domestic tea prices seems unjustified, since international prices are declining from January 2010.

3.2.2 CPI Non-food Inflation

CPI non-food inflation (YoY) remained in double digits and moving in a narrow range during recent months. CPI non-food inflation was recorded at 12.2 percent in April 2010, slightly higher than 11.6 percent registered in the preceding month, but significantly lower than 17.3 percent in April 2009 (see **Figure 3.7**). In fact, the

Figure 3.7: Components of CPI Non-Food Inflation

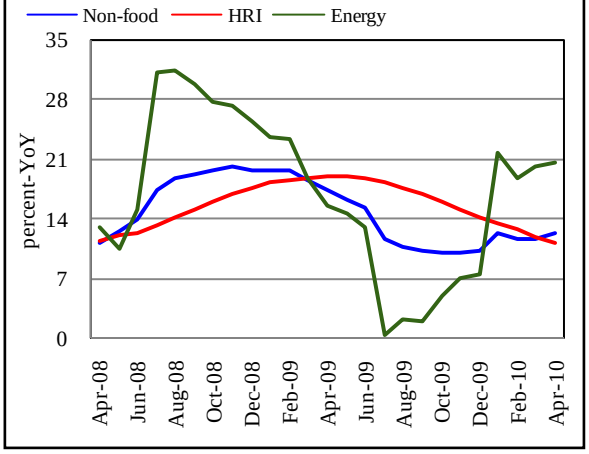


Table 3.3: CPI Non-food Inflation (YoY) by Groups

percent

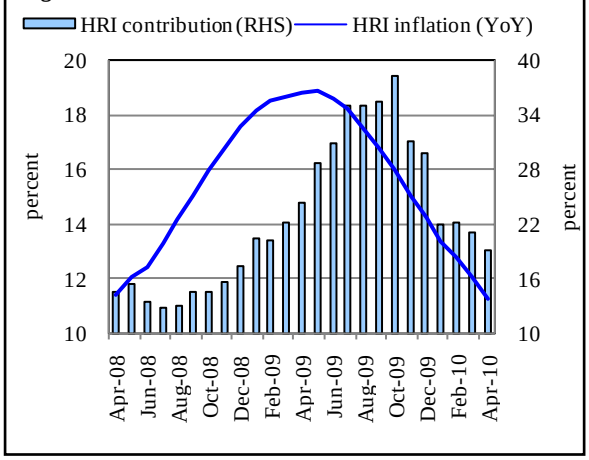
		MoM			YoY		
	Weights	**Apr-09**	**Mar-10**	**Apr-10**	**Apr-09**	**Mar-10**	**Apr-10**
Non-food group	59.6584	0.9	0.8	1.5	17.3	11.6	12.2
Apparel, textile, etc.	6.0977	0.7	0.8	2.2	12.3	6.1	7.7
House rent	23.4298	1.3	0.6	0.6	18.9	12.0	11.2
Fuel & lighting	7.2912	0.0	-0.1	-0.4	26.7	17.1	16.7
Household furniture & equipment	3.2862	0.3	0.4	0.9	12.6	5.3	5.9
Transportation & communication	7.3222	0.1	3.4	5.8	8.6	14.0	20.5
Recreation & entertainment	0.8259	0.1	0.1	10.0	13.9	4.3	14.7
Education	3.4548	6.2	0.2	2.7	23.0	12.5	8.8
Cleaning & laundry	5.8788	0.0	0.3	0.4	16.0	8.6	9.1
Medicare	2.0704	0.1	0.2	2.6	13.4	6.0	8.6

impact of a slowdown in HRI and *education* sub-groups was more than offset by acceleration in *transport & communication, apparel, textiles & footwear, recreation & entertainment, cleaning & laundry* and *medicare* sub-groups during April 2010 over the preceding month.

Inflation in *transport & communications* sub-group surged as a result of rising crude oil prices in international market and subsequent upward adjustment in the prices of key fuels (see **Table 3.3**). *Apparel, textile & footwear* sub-group continued to exhibit acceleration since December 2009 mainly due to rising prices of cotton and cotton products (see **Box 3.2**).

The contribution of HRI in CPI is declining gradually (see **Figure 3.8**). However, the pace of this decline is slowing. In fact, a moderation in HRI inflation was principally a function of falling prices of cement amid weaker demand. However, a surge in the prices of other construction material, particularly iron bars and copper is offsetting the impact of lower cement prices. It is expected that downtrend in HRI would be reversed in early months of the next fiscal year.

Figure 3.8: HRI Contribution in CPI Inflation



3.2.3 Incidence of Inflation

Since present inflation continued to be driven by rising prices of food commodities, the incidence of inflation is disproportionately higher in low income groups. This suggests that targeted subsidy programs for low income households should be introduced to protect them from the rising prices of essential food items. However, recent surge in non-food inflation, particularly rise in the prices of fuels, apparel, laundry etc have also hit higher income groups as evident from higher non-food inflation for the highest income group (see **Table 3.4**).

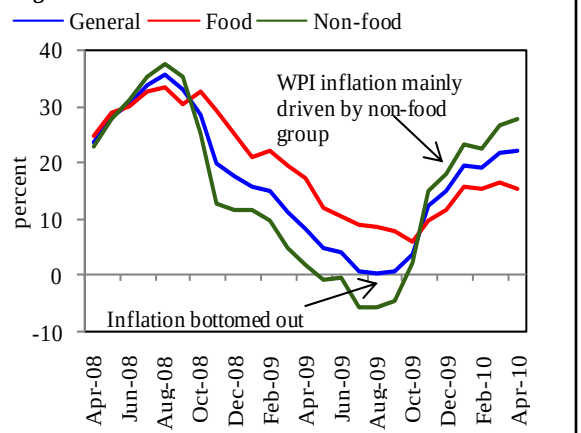
Table 3.4: Income Group-wise CPI Inflation
percent YoY

Income group		Overall CPI	CPI food	CPI non-food
Up to Rs 3,000	Apr-09	17.7	18.5	16.7
	Mar-10	13.8	16.0	11.1
	Apr-10	13.5	15.4	11.1
Rs 3,001-5,000	Apr-09	17.8	17.8	17.8
	Mar-10	13.6	15.6	11.3
	Apr-10	13.4	15.2	11.3
Rs 5,001-12,000	Apr-09	18.0	17.3	18.7
	Mar-10	13.1	14.9	11.4
	Apr-10	13.2	14.8	11.6
Rs 12,000 and above	Apr-09	16.2	16.3	16.1
	Mar-10	12.5	13.6	11.9
	Apr-10	13.3	13.8	12.9

3.3 Wholesale Price Index

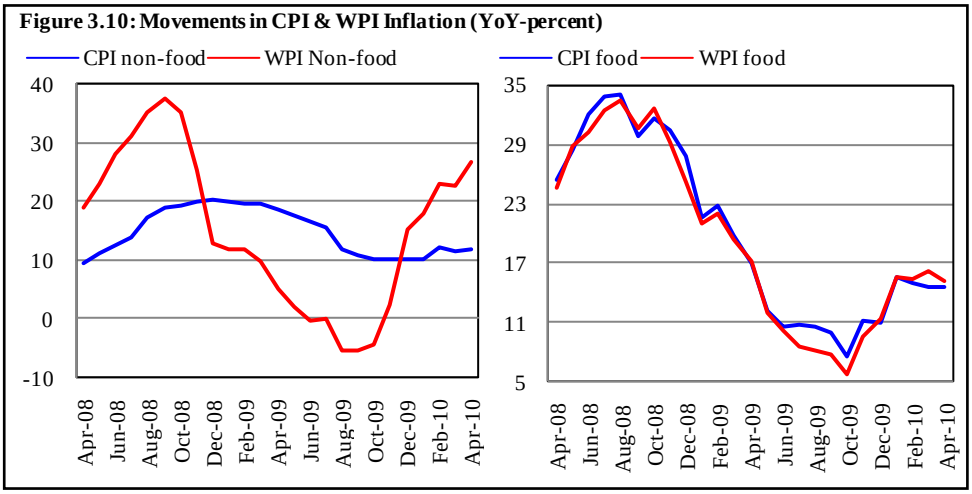
Inflationary pressuures are more evident in stubbornly high WPI inflation. WPI inflation rose to 22.0 percent YoY during April 2010 from its bottom of 0.3 percent in August 2009 (see **Figure 3.9**). While CPI non-food inflation is moving in a narrow range , WPI non-food inflation is increasing sharply. This is due to the direct impact of rising international prices of cotton, base metals and POL on WPI.

Figure 3.9: WPI Inflation YoY



During the initial months of FY10, WPI inflation was significantly lower than the CPI inflation. Nonetheless, WPI inflation surpassed CPI inflation in recent months. This divergence is explained by the surge in WPI non-food inflation as food inflation in both indices are moving in tandem (see **Figure 3.10**). In addition, bullish prospects of international commodity prices suggests that WPI inflation would remain strong in months ahead.

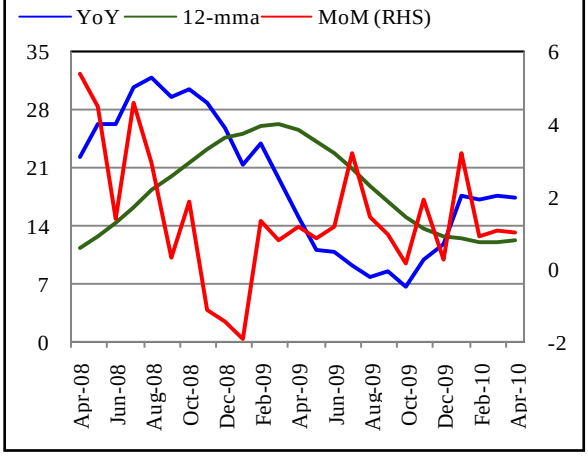
Figure 3.10: Movements in CPI & WPI Inflation (YoY-percent)



Within WPI non-food group, *raw materials, building material,* and *fuel & lighting*

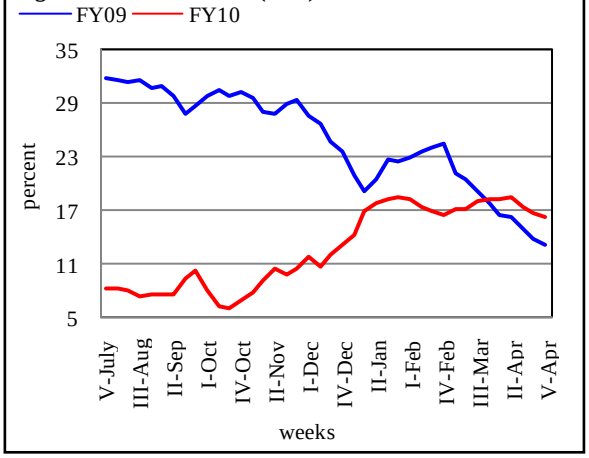
sub-groups witnessed significant acceleration in inflation. Inflation in the former group rose sharply largely due to surge in the prices of cotton and cotton products. *Fuel & lighting* sub-component witnessed increase amid rising prices of crude oil in international market.

Figure 3.11: SPI Inflation (percent)



Buidling materials sub-group was dragging WPI inflation downward due to continued deflation. However, inflation in in *building materials* sub-index has increased significantly to 7.8 percent in April 2010 from deflation in the preceding months. This trend reversal is attributed to sharp rise in the prices of base metals and cement products. The rising prices of cement blocks, despite declining prices of cement, probably indicate pressures on wages, rising prices of other material and increasing transportation cost. This shows that the contribution of this group will further increase in WPI inflation in months ahead.

Figure 3.12: SPI Inflation (YoY)



3.4 Sensitive Price Indicator

Following trends in CPI and WPI, SPI inflation has also increased during recent months. SPI inflation (YoY) was 17.4 percent during April 2010 compared to 17.6 percent in March 2010. Higher incidence of SPI inflation was mainly due to rise in the prices of essential food items (see **Figure 3.11**).

On the other hand, weekly SPI inflation (YoY) bottomed out at 6.1 percent in the third week of October 2009, but remained above 16 percent from the 1st week of January 2010 (see **Figure 3.12**). SPI inflation reached as high as 18.4 percent by

the 2nd week of April 2010 before retreating to 16.3 percent by the fifth week of April 2010.

3.5 Global Inflation Scenario

Inflation worldwide has trended upwards due to a stronger global recovery than anticipated earlier. Growth in emerging economies is strong, and largely driven by strong domestic demand whereas, in developed economies though growth is fragile but real activity is rebounding with supportive monetary and fiscal policies. Uptrend in inflation is partially attributed to fiscal and monetary stimulus and partly attributed to rising international commodity prices.

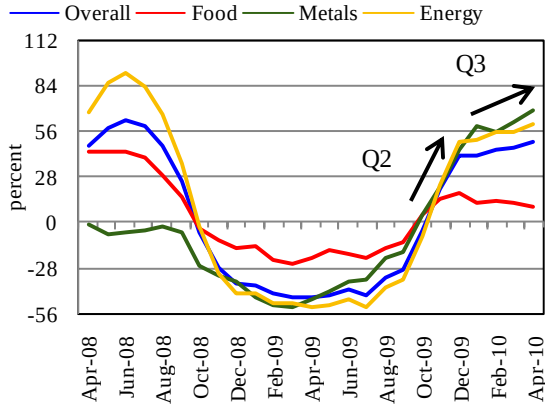
Table 3.5: Policy Rates in Major Economies

Major economies	Current policy rate	Previous	Changed on
United States	0.25	1.00	Dec 16 2008
United Kingdom	0.50	1.00	Mar 05 2009
Euro Area	1.00	1.25	May 07 2009
Japan	0.10	0.30	Dec 20 2008
Canada	0.25	0.50	Apr 21 2009
Australia	**4.50**	**4.25**	**May 04 2010**
China	5.31	5.58	Dec 22 2008
India	**5.25**	**5.00**	**Apr 20 2010**
Korea, South	2.00	2.50	Feb 12 2009
Malaysia	**2.25**	**2.00**	**Mar 04 2010**
Indonesia	6.50	6.75	Aug 05 2009
Philippines	4.00	4.25	Jul 09 2009
Thailand	1.25	1.50	Apr 08 2009
New Zealand	2.50	3.00	Apr 30 2009
Pakistan	12.50	13.00	Nov 24 2009

Sources: Bloomberg, central banks' websites.

Resurge in inflation is most evident in developing countries where food and fuel represents a larger share of consumer spending. Whereas, according to the World Bank's Economic Monitoring Team, core inflation has been more stable and continue to moderate across many countries (similar to the case of Pakistan). In order to manage inflationary pressures led by growth amid excess liquidity (injected through fiscal stimulus packages), central banks are moving towards contractionary policies. Australia, India, Malaysia and Singapore have recently raised their inertest rates (see **Table 3.5**). Going forward it is likely that some other countries also tighten monetary policy in order to avoid the formation of asset bubbles.

Figure 3.13: IMF Price Indices (YoY)



Source : IMF

3.5.1 International Commodity Prices

International commodity prices rose by 48.4 percent YoY in April 2010 compared with a fall of 45.5 percent a year earlier. In particular, increase in energy and metal prices was more pronounced (see **Figure 3.13**). This has been attributed to (a) relative weakening of US dollar; (b) recovery in global economy; and (c) revision in price setting mechanism for iron ore.

Food

Fortunately, rise in food prices slowed down somewhat amid ample supplies of food grains based on huge carryover stocks and favorable prospects for 2010 crops. Decline in sugar prices was the major source of deceleration in food commodity prices. Upward revisions in sugar production estimates in India and significant rise in sugar production in Brazil resulted in sharp contraction in the international sugar prices. Raw sugar prices dropped from a 29 year high of US cents 28.4/pound in January 2010 to US$ 16.3/ pound by April 2010. Tea prices also declined during the third quarter of FY10 owing to improvement in weather in dorught striken parts of Kenya and Uganda.

Energy

Crude oil prices remained in the range of US$70 – US$80 per barrel during Q3-FY10. In April 2010, it rose to US$ 84.2 per barrel, the highest level since September 2008. Positive macroeconomic developments such as; (a) improved manufacturing and services sectors along with employment generation in the US, the largest consumer of oil in the world and; (b) IMF upward revision in its forecast of world economy growth to 4.2 percent from January 2010 forecast of 3.9 percent, kept crude oil prices at higher levels during recent months.

Metals

Industrial metal prices recovered sharply during last six months registering 69.3 percent growth in April 2010. Metals prices also rose on economic optimism based on strong growth in China and India coupled with encouraging news from OECD countries led by US and Japan. Revision in the mechanism of customary annual contract price of iron ore has also pushed up base metal prices in international market.

Cotton

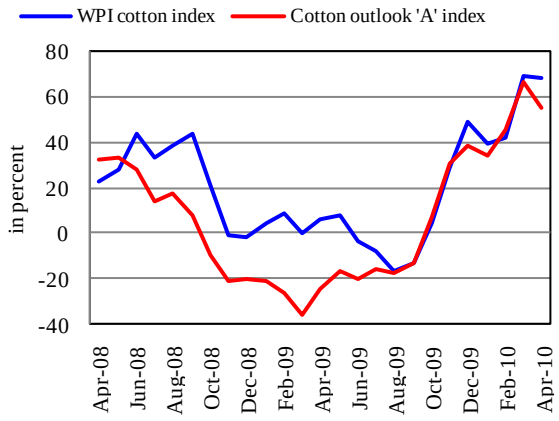
Cotton prices have increased sharply since November 2009 due to recovery in textile demand together with supply shortage in raw cotton markets (see **Box 3.2**). Cotton prices retreated by mid March 2010. However, as a result of imposition of a ban on exports by India, cotton prices resurged again by the second week of April 2010.

Box 3.2: Surge in International Cotton Prices

International cotton prices rose to a record US$ 0.88/pound by April 2010 from US$ 0.57/pound in April 2009. This sharp jump was mainly driven by; (a) increase in cotton consumption amid recovery in global economy; (b) decline in cotton output principally in China and US; as well as, (c) estimated decline in cotton stocks by end of this year. According to US Department of Agriculture Foreign Agricultural Services (USDA FAS),[7] global cotton production this year is estimated to be 22.3 million metric tons (MMT) against earlier estimates of 22.4 MMT and 23.4 MMT during 2008-09 (see **Figure 3.2.1**).

Apparently, the pace of rise in domestic cotton prices seems higher than the international cotton prices. This difference however, disappeared after exchange rate adjustment. It means the movements in domestic cotton prices fully explained by changes in international prices. This is an outcome of a number of factors including: (a) government is out of cotton business; and (b) domestic cotton market is performing well. Domestic cotton prices reached to as high as Rs 6800/40kg by end April 2010, almost double than a year earlier. The recent spike (end-April 2010) in cotton prices is a result of imposition of a ban on cotton export by India.

Figure 3.2.1: Change in Cotton Prices (YoY)



Source : FBS, IMF

An improvement in FY10 cotton harvest was quite fortunate for the domestic farmers, particularly in Sindh where farmers were able to raise yield. Spinning sector also took advantage of higher global prices and export of cotton yarn increased by a hefty 38.9 percent in value (31.7 percent in quantum) during Jul-Mar FY10. Given, importance of cotton in agriculture and economy, there is a need to increase domestic output by using quality seeds and modern cultivation methods to meet the growing domestic and external demand. The role of government is appreciable in cotton market; it should continue to act as a facilitator and regulator.

[7] USDA FAS revised its estimates of world cotton supply, use, and trade in April 2010 from earlier forecasts in March 2010.