3 Prices

3.1 Global Inflation Scenario

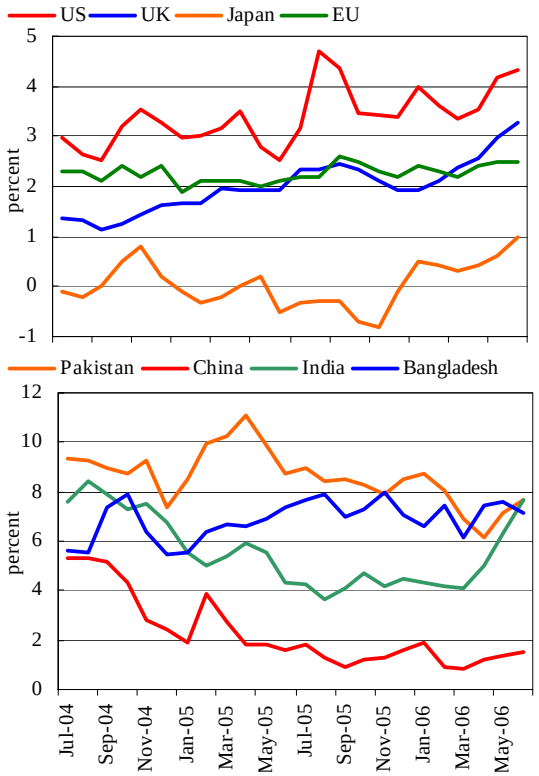
A gradual improvement in the economy and a strong rise in international oil prices contributed to a rise in the average inflation rate in 2006 for many major economies globally, compared to that in 2005. In the UK and the US, house prices remained strong, while the recent increase in inflation in China and India also stemmed from a rise in food and raw material prices in addition to oil prices (see **Figure 3.1**).

The sharp increase in international oil prices, not only put pressure on trade balances of oil importing countries and affected real growth but also accelerated inflation globally **(**see **Figure 3.2**). The average price of crude oil remained above US$60 during most of 2006, and it touched the level of US$ 78.4 per barrel in mid-July 2006. Turmoil in Iraq, unrest in Nigeria, uncertainty of supply by Yukos — the Russian oil giant, dispute over Iran's nuclear program — and high demand from a booming China coupled with supply constraints added premium in rising oil prices. Moreover, Hurricane Ivan that hit the Caribbean and South-Eastern USA played a role in disrupting oil supplies during 2005 and 2006.

Moreover, prices of key commodity groups such as metals and food also witnessed a rising trend during the last two years; this was mainly due to strong demand principally from rapidly growing China and other Asian economies.

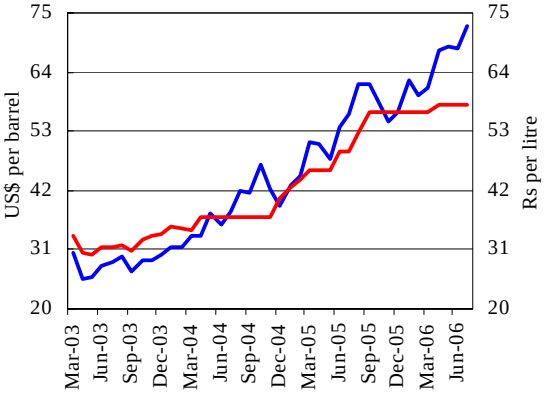
In response to these mounting inflationary pressures, many central banks around the world tightened their monetary policy during 2005 and 2006.

Figure 3.1: Inflation in Selected Countries



Sources : IMF, ADB, central banks' websites and Economist

Figure 3.2: Crude Oil Prices



3.2 Domestic Scenario

While Pakistan's economy also suffered due to rising commodity prices, inflationary pressures eased somewhat in the domestic economy as headline Consumer Price Index (CPI) witnessed a deceleration from a peak of 9.3 percent average inflation in FY05 to 7.9 percent during FY06 (see **Table 3.1**), mainly due to monetary tightening to soften demand pressures as well as administrative measures to counter supply shocks. Moreover,

while the sharp acceleration in CPI inflation during FY05 was equally contributed by *food* and *non-food* components, the FY06 deceleration is solely a result of ease in food inflation. Even though, *house rent index* (HRI) sub-group contributed to a slowdown in *non-food* component, a strong surge in *fuel & lightning* and *transport & communication* sub-groups more than offset the impact of the moderation in HRI during this period.

Table 3.1: Inflation Trends
percent

		Annual average			Annual marginal		
	GDP	June to June basis			June to June basis		
Period	deflator	CPI	WPI	SPI	CPI	WPI	SPI
FY01	6.7	4.4	6.2	4.8	2.5	4.6	2.0
FY02	2.5	3.5	1.2	3.3	4.4	1.9	3.7
FY03	4.5	3.1	5.6	3.6	1.9	4.1	2.9
FY04	9.0	4.6	7.9	6.8	8.5	10.2	12.6
FY05	8.8	9.3	6.8	11.6	8.7	6.2	9.2
FY06	10.3	7.9	10.1	7.0	7.6	9.0	8.5
Sep-FY07-		8.4	8.2	10.4	8.7	8.1	11.2

Source: FBS, Economic Survey 2005-06

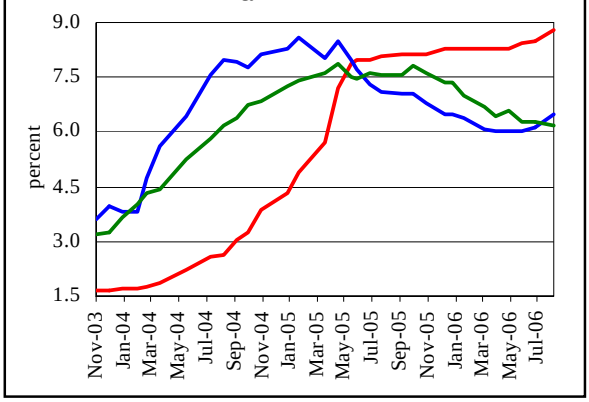
Indeed, the resilience in non-food inflation, coupled with a rising trend in inflation measured by both Wholesale Price Index (WPI) and GDP deflator, indicates that inflationary pressures persist in the economy. The major impetus to WPI inflation stemmed from the *raw material* and *energy* sub-groups. Similarly, the rise in the GDP deflator also witnessed primarily due to increase in *industrial* sub-index following a surge in the cost of energy and raw materials.

One intriguing explanation for the difference in the trend of WPI and GDP deflator with that of CPI could be that while the cost of production increased significantly in FY06, not all of it was passed through to consumers. Reasons for this could include: (1) increased productivity which would have compensated for a part of increased cost; particularly if (2) domestic producers are facing tough competition from cheap imports, and that (3) competition between domestic producers for market shares has intensified.

It is important to note that while increasing energy costs, and the rising international prices of commodities such as sugar, cement, fertilizer and steel did contribute significantly to domestic inflation, the dominant stimulus to inflationary pressures during FY06 remained from domestic sources. These included the domestic supply shocks (wheat, sugar, pulses and milk) as well as the continued strength of aggregate demand (despite the visible impact of the monetary tightening instituted throughout FY06).

The impact of slower growth in money supply is reflected in the deceleration of core inflation (see **Figure 3.3**) and in overall CPI inflation, but a degree of caution is clearly warranted. While the impact of the deceleration in core inflation was enhanced by a simultaneous decline in *food* inflation, it is unclear whether this will continue in FY07. Moreover, while *food* inflation is admittedly less responsive to monetary policy, it must be kept in mind that the *inflation expectations* will continue to be driven by overall CPI inflation.

Figure 3.3: Core Inflation and Monetary Policy



Furthermore, while CPI inflation remains the primary policy variable for monetary policy, it is foolish to ignore totally the instability in the downtrend of CPI inflation, the still-high WPI inflation, and the fact that the significant divergence between the GDP deflator and CPI inflation (see **Box 3.1**) during FY06. All of the factors suggest that despite the decline in CPI, there is a risk that inflationary pressures still persist in the economy.

Box 3.1: Sectoral Analysis of Price Trends as Reflected in GDP Deflator and CPI

Despite definitional differences,[1] the GDP deflator and CPI inflation generally move together; although, there may be divergence occasionally in the trends of two indices as has been observed in last couple of years (see **Figure 3.1.1**). GDP deflator showed higher change of 10.3 percent in FY06 compared with that in FY05, while CPI inflation slowed in FY06. A detailed investigation shows that the agriculture and services sub-indices of both, CPI and GDP deflator, moved in the same direction and it was the industrial sector that witnessed divergent trend in inflation measured by the two indices (**Table 3.1.1**). While the consumer prices of industry related items showed a YoY deceleration in FY06, industrial producers' prices, as reflected by industry deflator, witnessed a sharp increase from 4.1 percent growth in FY05 to 11.7 percent in FY07. The industry deflator is based on Producer Price Index (PPI), which is computed by the Federal Bureau of Statistics for the purpose of national accounts compilation and shows the ex-factory price of goods. Thus the recent trend shows that producers' receipts increased at a higher pace compared with wholesalers and retailers margins.

Table 3.1.1: Comparison of CPI & GDP Deflator Trend

	FY04	FY05	FY06
CPI overall	*4.6*	*9.3*	*7.9*
CPI agricultural commodities	4.3	16.8	8.6
CPI Industrial commodities	5.2	7.8	6.6
CPI services	4.1	8.0	8.9
GDP deflator	*9.0*	*8.8*	*10.3*
Agriculture deflator	7.5	10.8	5.7
Industry deflator	18.2	4.1	11.7
Services deflator	5.4	10.4	11.4

Figure 3.1.1: GDP Deflator & CPI Inflation

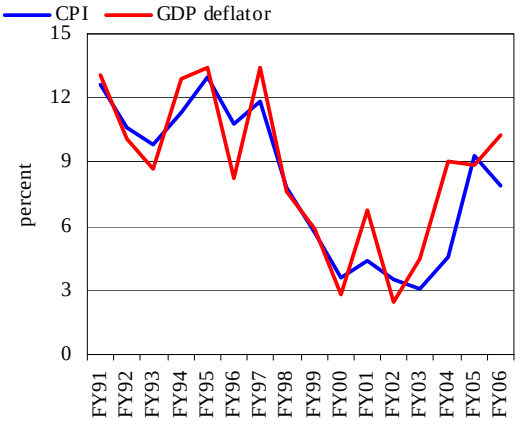
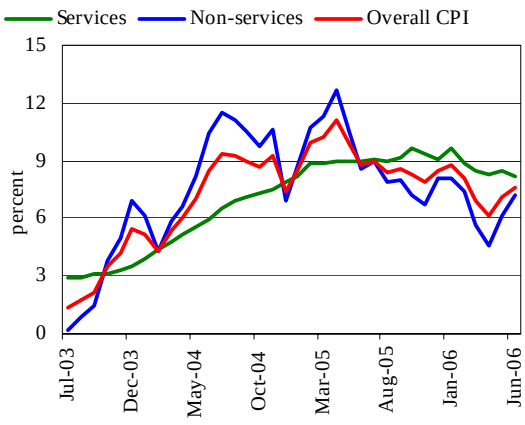


Figure 3.1.2: Services & Non-services CPI Inflation



Within the overall basket of the consumer price index, the items related to services sector[2] have been showing a high, though stable or decelerating, inflation during FY06. Non-services inflation, i.e. price increases in the commodity sector, on the other hand saw a sharp reduction from an average of 10.0 percent in FY05 to 7.0 percent in FY06. As the commodity sector constitutes about 57.0 percent of the CPI basket, the overall inflation in the consumer price index is mostly driven by commodity inflation (see **Figure 3.1.2**).

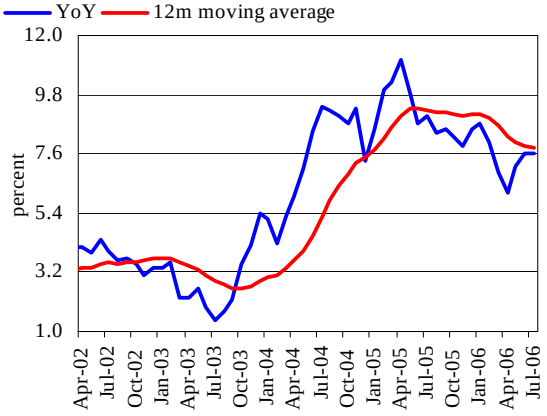
This risk is also evident in the behavior of core inflation. While core inflation measured by the trimmed mean declined throughout FY06, the fall has been very gradual, and it remains high. Similarly, core inflation as measured by *non-food non-energy* inflation also maintained its declining trend throughout the fiscal year except towards the end, which seems to indicate sluggishness in further deceleration. As the core inflation generally represents the persistent component of demand-pull inflation, its decline can be attributed to demand management policies adopted during FY06.

[1] GDP implicit price deflator and consumer price index (CPI) are different from each other in a number of aspects including particularly; (a) CPI is based on fixed basket of goods while composition of GDP deflator may change, (b) CPI is computed on the basis of fixed weights of commodities while GDP deflator is based on variable weights, and (c) CPI includes imported items and hence is directly affected by imported inflation while GDP deflator excludes imported items.

[2] Consumer services include items like house rent index, electricity charges, marriage hall, house hold servant, transport fare, communication, recreation, tuition fees, laundry charges, hair cut & beauty parlor charges, doctor's fee, readymade food, tailoring charges, etc.

But, by the same definition, it seems that continued demand containment measures would be required to sustainably reduce the core inflation in the economy.
Given (1) high levels of CPI inflation and core inflation, (2) resilience in non-food inflation, which is still at high levels, (3) acceleration in broader measures of inflation and (4) a lower inflation target of 6.5 percent for FY07, SBP is likely to continue with its tight monetary policy in months ahead. In this background, cetris paribus, current SBP forecasts suggests that CPI inflation is likely to be in the range of 6.7 – 7.5 percent during FY07, a little above the annual target.

Figure 3.4: CPI Inflation



3.3 Consumer Price Index

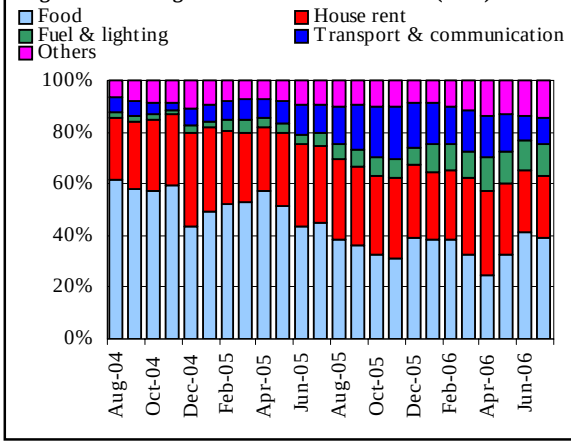
The sustained rise in CPI inflation seen in FY05 visibly slackened in FY06, particularly in the latter half of the fiscal year (see **Figure 3.4**). The downward trend of CPI inflation was principally due to a sharp deceleration in the inflation of *food* prices, as well as significant deceleration in *house rent* inflation (see **Table 3.2**). Unfortunately, the impact of these developments on overall CPI inflation was considerably muted by a rise in inflation in other components of the CPI basket, principally including a sharp rise in *fuel & lighting* and *transport & communication* sub-indices.

Table 3.2: Consumer Price Inflation (period average)

percent

	FY05	FY06
Overall	*9.3*	*7.9*
Food	12.5	6.9
Non-food	7.1	8.6
Apparel, textile & footwear	3.0	4.1
House rent	11.3	9.9
Fuel & lighting	3.7	9.0
Household furniture & equipment	6.0	5.2
Transport & communication	8.4	16.6
Recreation & entertainment	-0.1	-0.3
Education	2.9	6.4
Cleaning, laundry & personal appearance	4.1	3.1
Medicare	1.0	2.5

Figure 3.5: Weighted Contribution to CPI (YoY)



In terms of the contribution to overall inflation, the share of the *food* group declined significantly during the year, its average contribution to inflation declined from 54.2 percent during FY05 to 35.0 percent during the year under review. In April 2006, the *food* groups' contribution of 24.0 percent was the lowest in the past 32 months however, a part of these gains were then surrendered in subsequent months of FY06 (see **Figure 3.5**). Within the *non-food* group, the contribution of HRI also declined from more than 32.0 percent in June 2005 to 24.0 percent in June 2006, but the impact of this was offset by higher inflation in other components of *non-food* sub-group. In particular, the combined share of *fuel& lighting* and the *transport & communication* sub-groups in inflation increased significantly from an average of 9.0 percent during FY05 to 24.0 percent in FY06.

A frequency distribution of consumer items with respect to their YoY inflation in June 2006 shows that 34 out of 110 items of *food* group witnessed a rise of prices in double digits, and 49 items remained in a range of negative change in prices to below 5 percent increase; the rest of the items showed a moderate rise of 5 to below 10 percent. Within the *non-food* group, more than 60 percent of the items showed either negative price change or subdued inflation below 5 percent and only 13 percent of the items were in double digit range of inflation (see **Table 3.3**). This analysis suggests that (1) the current inflation is not broad based as well as (2) the impact of administrative measures and tight monetary policy is visible in subdued price changes in a number of items in both *food* and *non-food* sub-groups.

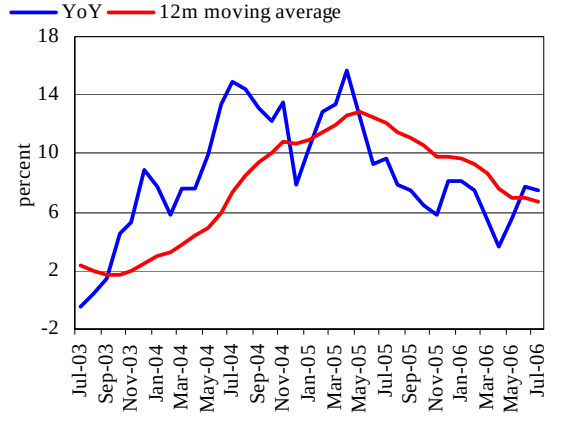
Table 3.3: Distribution of Price Changes of CPI Basket, June 2006 (YoY)

Groups	Weights	Percent changes	Total number of items	Number of items in each inflation range			
				Decrease or no change	Subdued increase	Moderate increase	Double digit increase
				(< 0 %)	(0 to 5%)	(5 to 10%)	(> 10%)
I. Food group	**40.3**	**5.6**	**110**	**25**	**24**	**27**	**34**
II. Non-food group	**59.7**	**7.5**	**250**	**78**	**90**	**50**	**32**
Apparel, textile, etc.	6.1	3.6	42	7	21	12	2
House rent	23.4	7.9	1	0	0	1	0
Fuel & lighting	7.3	11.7	15	7	1	1	6
Household furniture & equip	3.3	6.0	44	2	27	15	0
Transport & com.	7.3	10.4	43	12	5	10	16
Recreation & entertainment	0.8	-0.1	16	12	2	2	0
Education	3.5	6.6	24	6	10	4	4
Cleaning, laundry, etc.	5.9	3.7	36	12	18	2	4
Medicines	2.1	4.4	29	20	6	3	0
Overall	**100.0**	**7.6**	**360**	**103**	**114**	**77**	**66**

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

Thus, further measures to contain aggregate demand appeared desirable in light of the relatively high level of CPI inflation, the potentially unstable downtrend in CPI inflation, and the resilient *non-food* inflation (which hovered around 8 percent through most of FY06) and the inflation risk from an increasingly expansionary fiscal policy. This was even more important given that the challenging task of reducing average inflation to 6.5 percent during FY07. It is in this context that the SBP chose to further tighten its monetary stance early into FY07.

Figure 3.6: CPI Food Inflation

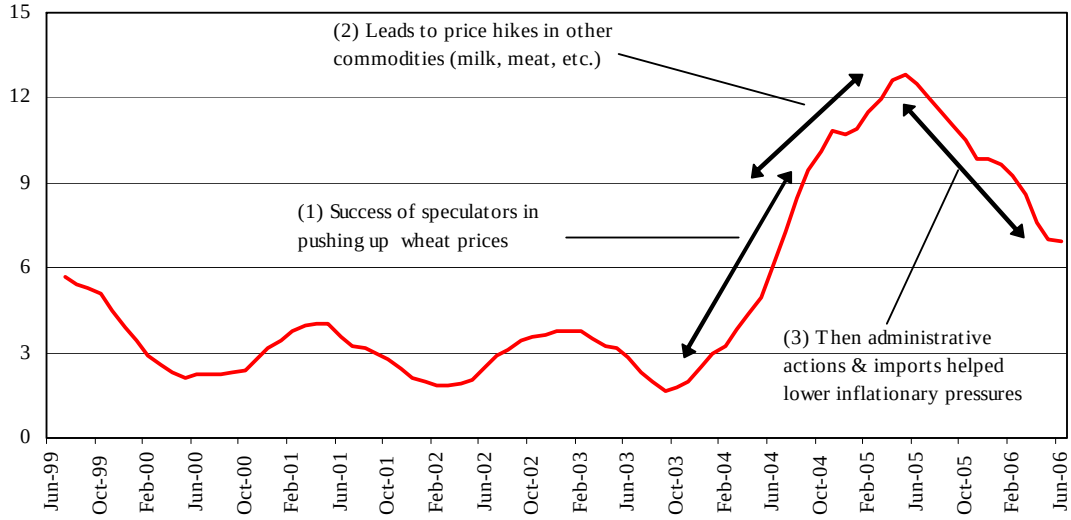


3.3.1 CPI Food Group

Inflation in CPI *food* started declining from the beginning of FY06 and was recorded at 3.6 percent YoY during April 2006 – the lowest in the last 30 months. Although it increased subsequently to 5.6 percent in May and further to 7.8 percent in June 2006, it nonetheless remained lower relative to the 9.3 percent seen at end-FY05 (see **Figure 3.6**).

Given that the food prices are generally less sensitive to monetary stimuli, it is important to understand the key role played by administrative measures and market-based government interventions in the decline of *food* inflation in FY06. The context of *food* price inflation in recent

Figure 3.7: Impact of Changing Expectations of Pricing Power on Food Inflation



years is clearly illustrated in **Figure 3.7**. The reduction in wheat procurement by government and its substitution by private procurement (and ample availability of low-interest credit), left the door open to speculative wheat price increases. The consequent realization of pricing power subsequently encouraged price hikes in other commodities, further fueling *food* price inflation[3]. These expectations persisted until the government finally re-asserted its authority against anti-competitive practices in FY06. This is particularly evident in the wake of the sugar crisis where sugar mills reduced sales of stocks in order to maintain higher than equilibrium prices. The government responded to importing large quantities of sugar, the supply of which was sold at subsidized rates.

As a result, *food* inflation saw a clear deceleration in FY06. However, some residual volatility remains, which is a reflection of supply shocks of sugar, increases in the prices of milk, pulses, vegetables and fruits during the year.

It is important to stress here that while a market system is desirable, and direct interventions should be avoided in general, the latter perception does not hold true if market failures lead to non-competitive behavior. In such case, the government needs to assess the causes of the problem, and institute corrective market based policies. Where this is not possible (e.g. in natural monopolies), there is a strong case for price regulation. In any case, in the interim until corrective policies implemented, strictly temporary direct government intervention may be desirable to protect consumers. The recently announced administrative measures to control prices and enhanced role of utility stores are case in point, and are likely to reduce volatility in food inflation in months ahead.

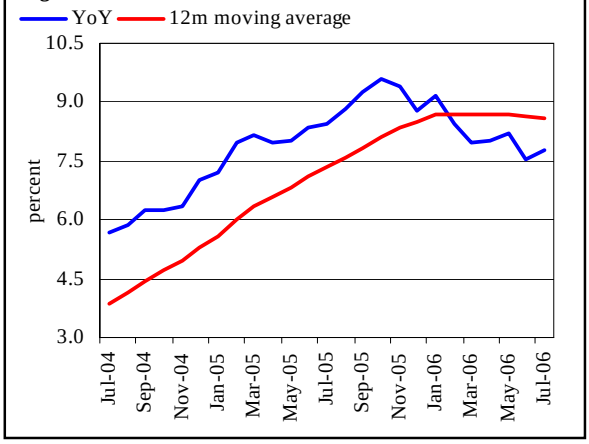
3.3.2 CPI Non-food Group

In contrast to *food* inflation, *non-food* inflation averaged 8.6 percent during FY06, higher than the 7.1 percent average for FY05. In particular, the first half of the year witnessed accelerated inflation in *non-food* items, and while this tapered off a little during H2-FY06 (see **Figure 3.8**), it nonetheless remained high. The main reason of sluggishness in *non-food* inflation in the second half of the fiscal year was a persistent decline in HRI inflation.

[3] In FY05, supply shortages of some other commodities such as onion, tomato, meat etc. also joined the on-going rally of rising prices of food items.

The *house rent index* (HRI) maintained its declining trend from 12.3 percent in February 2005, to reach 7.9 percent (YoY) by June 2006. However, the impact of this on aggregate CPI *non-food* inflation was muted by significant increases in other components of *non-food* inflation. This was particularly true for *fuel & lighting* inflation, which rose by 7.1 percent (YoY) points during FY06.

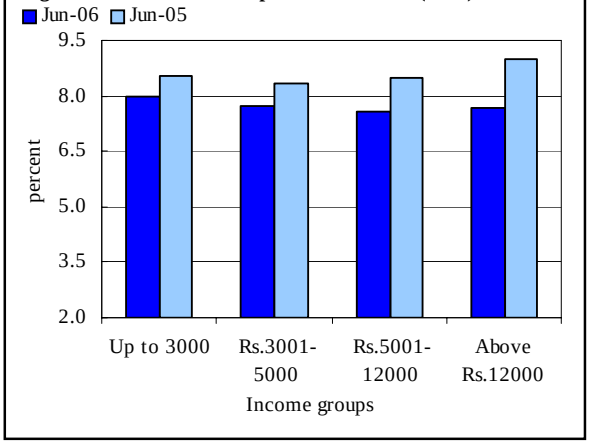
Figure 3.8: CPI Non-food Inflation



Similarly, the *transport & communication* sub-index showed double digit inflation during June 2006, but the 10.4 percent YoY inflation here was nonetheless significantly lower than the 13.6 percent in the corresponding month of 2005. *Medicare* and *education* were the other two groups of *non-food* category that showed significantly higher inflation (YoY) in June 2006 compared with the corresponding month of FY05.

The recent softening in international oil prices is likely to help ease *non-food* inflation, which may therefore see a clear declining trend going forward. However, it should also be kept in mind that the declining trend of HRI (with a dominant weight of 23.43 percent in the CPI) may reverse by January 2007.

Figure 3.9: Income Group-wise Inflation (YoY)



3.4 Incidence of Inflation

The income group-wise distribution of inflation shows that the highest inflation was experienced by the lowest income group (having income up to Rs 3000 per month per household) in June 2006 (see **Figure 3.9**). This is surprising given a significant deceleration in *food* inflation, which normally be expected to reduce the incidence of inflation on low income groups.

The counter-intuitive result suggests that the rise in *non-food* inflation is specific to the low income group. Further analysis indicated that the relatively higher incidence of inflation for the low income group is principally attributed to a rise in the cost of transport fare, utility charges, etc.

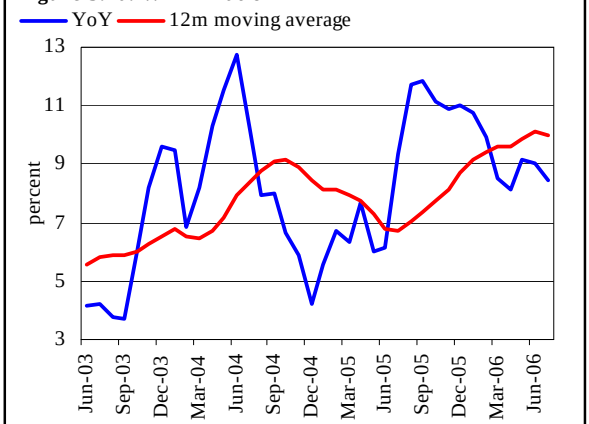
In terms of improvement in incidence of inflation during FY06 relative to FY05, while the lowest gains were received by the two low income groups (0.6 percentage points), the highest decline of 1.9 percentage points in YoY inflation was observed in the case of high income group.

This suggests need for pro-poor anti-inflationary policies with particular emphasis to provide essential food items and utilities at subsidized rates to vulnerable groups. Moreover, there is a need to monitor the rise in transport fares in response to increased fuel cost, it should be proportional, and more importantly, in case of downward adjustment in fuel prices would be made in future, transport fares should be revised downwards as well.

3.5 Wholesale Price Index (WPI)

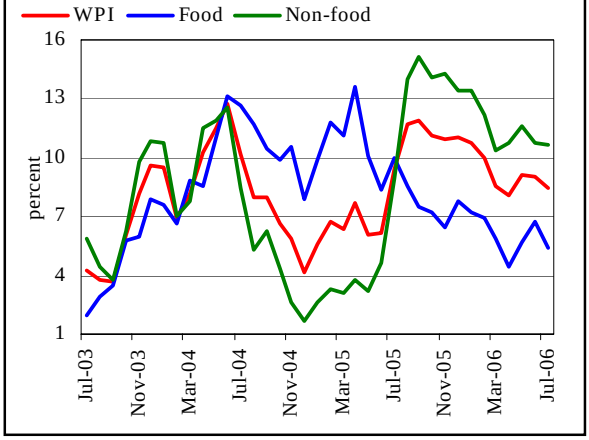
In contrast to the CPI trend, despite declining *food* inflation, average annual WPI inflation accelerated significantly in FY06; it rose to 10.1 percent as compared to 6.8 percent in FY05. However, it is important to note that even here a sustained downtrend in inflation is evident after the sharp rise observed in the initial months of FY06 (see **Figure 3.10**).

Figure 3.10: WPI Inflation



The dominant contribution to the higher WPI inflation in FY06 has been from *non-food* prices; inflation in the prices of these jumped from 4.0 percent in FY05 to 12.4 percent in FY06.The sharp rise in WPI *non-food* inflation during Aug 2005 (see **Figure 3.11**) was mainly a result of a jump in international oil prices amidst strong demand and some supply constraints. As a result, WPI reached its peak of 11.9 percent in Sep 2005 before trending downwards. Subsequently, inflation in the *raw material* sub-index suddenly jumped to 15.2 percent YoY during Oct 2005 from only 0.1 percent YoY in the preceding month, largely due to a sharp increase in the prices of cotton seeds.

Figure 3.11: WPI Inflation (YoY)



The other two sub-groups of WPI (*building materials and manufactures*) witnessed subdued inflation during FY06 (see **Table 3.4**). In particular, a deceleration in *building material* sub-index despite a significant rise in the prices of cement and bricks reflected declining metal prices in the international and domestic markets.

Interestingly, the impact of a rise in international oil prices is much stronger in the case of WPI than CPI. This is mainly due to the fact that prices of most of the fuel and lighting related items in CPI basket are largely regulated,[4] but prices of many important fuel-related inputs (e.g. lubricants, furnace oil etc.) that are in the WPI basket are determined on the basis of trends in the international market.

Table 3.4: Group-wise WPI Inflation (average)

percent

WPI and its components	FY03	FY04	FY05	FY06
Food	3.5	7.0	10.7	7.0
Raw materials	14.4	17	-18.1	10.2
Fuel, lighting & lubricants	12.5	2.8	15.8	26.5
Manufactures	1.7	7.9	1.1	2.9
Building materials	1.7	22.9	13.7	0.3
Overall index	**5.6**	**7.9**	**6.8**	**10.1**
Overall excl. food	*7.1*	*8.6*	*4.0*	*12.4*
Overall excl. fuel	*3.9*	*9.2*	*4.5*	*5.6*
Overall excl. food and fuel	*4.3*	*11.7*	*-1.8*	*4.0*

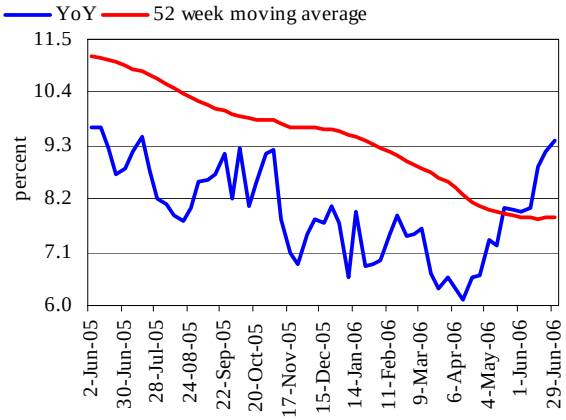
3.6 Sensitive Price Indicator (SPI)

On average, weekly inflation in SPI increased slightly from 8.8 percent in last week of FY05 to 9.4 percent in the corresponding week of FY06. However, average inflation during FY06 was 8.5 percent which is lower than the 9.2 percent seen in FY05 (see **Figure 3.12**).

[4] In fact, government is providing subsidy on diesel.

The major items contributing to the SPI inflation were pulses, vegetables, gas and other liquid fuel prices. More than one-third of the total items in the SPI basket recorded double-digit YoY inflation during June 2006, with some of the items like pulses, tomato, diesel, L.P.G. cylinders, etc. witnessing inflation of more than 20 percent.

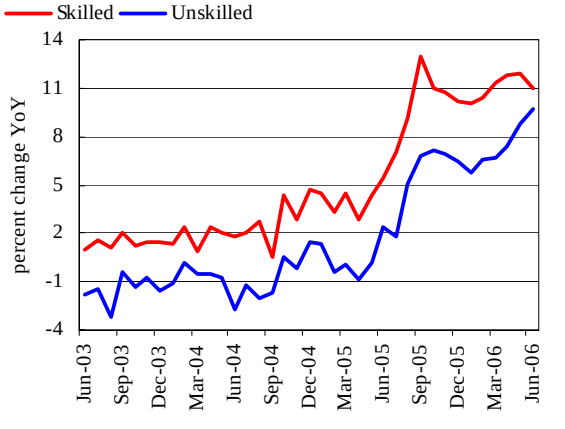
Figure 3.12: Weekly SPI Inflation



3.7 Wage Inflation

The sustained high growth in the economy and increased activity particularly in the construction sector resulted in a rise in the real wages of the construction related labor groups (such as carpenter, mason, electrician etc.) during FY06 (see **Figure 3.13**). The rise of 8.6 percent YoY in the average real wages of the construction workers witnessed during FY06 compared with only 1.7 percent increase in FY05 and only 0.2 percent in FY04.

Figure 3.13: Real Wages of Construction Workers



The rise in real wages, on the one hand, shows strong demand for skilled and unskilled construction workers, on the other hand, it suggests an increase in employment at least in construction sector. The increase in real wages also provides evidence of a rise in the purchasing power of the construction workers. It may be noted that the rise in the real wages was seen for all categories of construction workers, but impact was more pronounced in the case of unskilled labor.

It should also be kept in mind that a broad based sharp rise in real wages, however, may slow the employment absorption by reducing demand for additional labor, it may also decelerate the present growth momentum going forward.

3.8 Inflation during Jul-Sep FY07

Although the current fiscal year started with the same inflationary pressures as witnessed at the end of FY06, the headline CPI inflation increased significantly in the months of August and September 2006 primarily driven by *food* inflation. CPI *food* inflation was 11.1 percent in August 2006 which increased further to 11.3 percent in the month of September. While supply disturbances due to rains and floods pushed food inflation up in the double-digit range during August, demand escalation ahead of *Ramadan* caused food prices to remain at a higher position in September 2006. In contrast *non-food* inflation maintained its declining trend and was recorded at 7

Figure 3.14: Core Inflation YoY

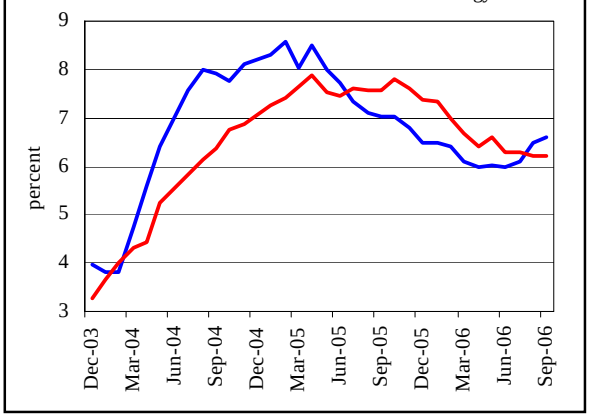


Table 3.5: Inflation (YoY)
percent

	CPI			WPI			SPI	Core inflation	
	General	Food	Non-food	General	Food	Non-food		NFNE *	Trimmed mean
Sep-05	8.5	7.5	9.3	11.9	7.5	15.2	7.0	7.6	7.0
Oct-05	8.3	6.4	9.6	11.1	7.2	14.1	6.5	7.8	7.0
Nov-05	7.9	5.8	9.4	10.9	6.4	14.3	5.4	7.6	6.8
Dec-05	8.5	8.1	8.8	11.0	7.8	13.7	6.2	7.4	6.5
Jan-06	8.8	8.2	9.2	10.8	7.2	13.8	6.0	7.3	6.5
Feb-06	8.0	7.5	8.4	9.9	6.9	12.2	7.0	7.0	6.4
Mar-06	6.9	5.4	8.0	8.5	5.9	10.4	6.8	6.7	6.1
Apr-06	6.2	3.6	8.0	8.1	4.5	10.8	6.8	6.4	6.0
May-06	7.1	5.6	8.2	9.1	5.7	11.6	8.6	6.6	6.0
Jun-06	7.6	7.8	7.5	9.0	6.7	10.7	8.5	6.3	6.0
Jul-06	7.6	7.4	7.8	8.4	5.4	10.7	8.8	6.3	6.1
Aug-06	8.9	11.1	7.4	8.2	8.2	8.2	10.6	6.2	6.5
Sep-06	8.7	11.3	7.0	8.0	9.2	7.2	11.2	6.2	6.6

*: Non-food non-energy

percent in September 2006 compared with 9.3 percent in the corresponding month last year (see **Table 3.5**).

The SPI also followed food inflation with a YoY growth of 11.2 percent in September 2006 compared with 7 percent during FY06. The major items contributing to SPI inflation were pulses, vegetables, gas, diesel, etc. Almost half of total items in the SPI basket recorded double digit inflation during September 2006 with some of the items like moong, gram, mash, tomato, and gas and electricity charges witnessing inflation of more than 40 percent.

More importantly, core inflation measured as trimmed mean also increased significantly from 6 percent by end of FY06 to 6.6 percent in September 2006. However, core inflation measured as *non-food non-energy* remained stable (see **Figure 3.14**).