Inflation Monitor

March 2006

State Bank of Pakistan

Economic Policy and Research Departments

Contents

Researchers

Muhammad Farooq Arby
Research Department
farooq.arby@sbp.org.pk

Fida Hussain
Economic Policy Department
fida.hussain@sbp.org.pk

Syed Sarfaraz Ali Shah
Research Department
syed.sarfaraz@sbp.org.pk

Editorial Assistance
Uzma Shakir
Research Department
uzma.shakir@sbp.org.pk

1. Overview

Inflationary pressures continued to weaken during March 2006 as the rate of increase in all the three measures of inflation, viz. consumer price index (CPI), wholesale price index (WPI) and sensitive price indicator (SPI) declined during the month. Headline consumer price inflation dropped to 6.9 percent year-on-year (YoY) in March 2006, which was its lowest since May 2004; wholesale price inflation declined to 8.5 percent during the month from an average inflation of more than 11 percent during the first half of the FY06; inflation in sensitive price indicator was 6.8 percent in March 2006 which, though slightly above the nine months average of the current fiscal year, was significantly lower than 11.4 percent inflation during the corresponding month last year (see **Table 1.1**).

A further analysis of the recent trends in price indices reveals that decline in YoY food inflation remained in the background of the current slowdown in overall inflation. Food inflation decelerated sharply both in CPI and WPI during March 2006, due to the strong base of last year as well as YoY decline in the prices of a number of important food items. Inflation in non-food component of both CPI and WPI has also been decelerating for the last couple of months which, along with decline of food inflation, suggests that inflationary pressures are easing off in the economy.

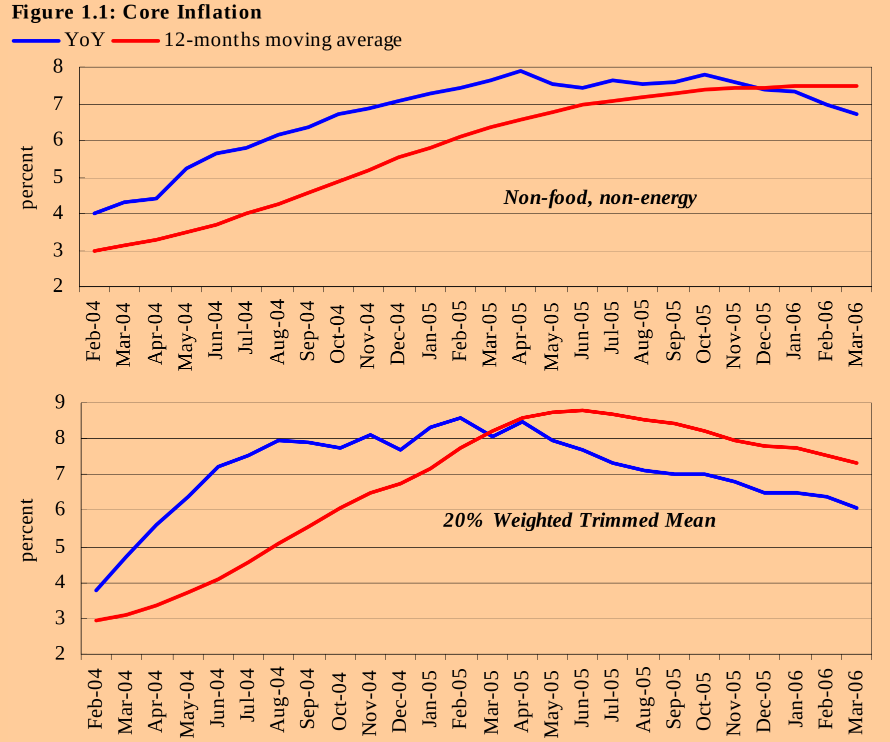
Table 1.1: Inflation (YoY)

percent

	CPI			WPI			SPI	Core Inflation	
	General	Food	Non-Food	General	Food	Non-Food		By Exclusion	By Trimming
Mar-05	10.2	13.3	8.2	6.3	11.1	3.1	11.4	7.6	8.0
Apr-05	11.1	15.7	8.0	7.7	13.6	3.7	13.4	7.9	8.5
May-05	9.8	12.5	8.0	6	10.1	3.2	9.9	7.5	8.0
Jun-05	8.7	9.3	8.4	6.2	8.4	4.6	9.2	7.4	7.7
Jul-05	9	9.7	8.5	9.4	10.0	8.9	8.0	7.6	7.3
Aug-05	8.4	7.8	8.8	11.7	8.6	14.0	7.1	7.6	7.1
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

Core inflation, measured both by excluding food and energy components from CPI basket and by trimming 20 percent of CPI items showing extreme changes, also continued to decline during the month (see **Figure 1.1**). As held earlier,[1] if no supply shocks occur during the subsequent months, the persistent decline in core inflation is very likely to lead the headline inflation down by the end of this fiscal year.

Figure 1.1: Core Inflation



The long-run trends of price indices, measured as 12-month moving average, are also indicating a slowdown in inflation; however, due to the lag impact of price hike that occurred during the last couple of months of FY05, the magnitudes are still high. The long-run trend of WPI inflation, which has been rising since the beginning of the current fiscal year, is expected to show deceleration if the current rate of decrease in YoY inflation continues (see **Figure 1.2**).

Table 1.2 gives different dimensions of inflation including period average inflation and monthly inflation in addition to the above discussed YoY and 12-

[1] Inflation Monitor, February 2006.

month moving average inflation. It can be seen that, although declining, inflation rates are still above the average of the past five years.

Figure 1.2: Movements in Price Indices

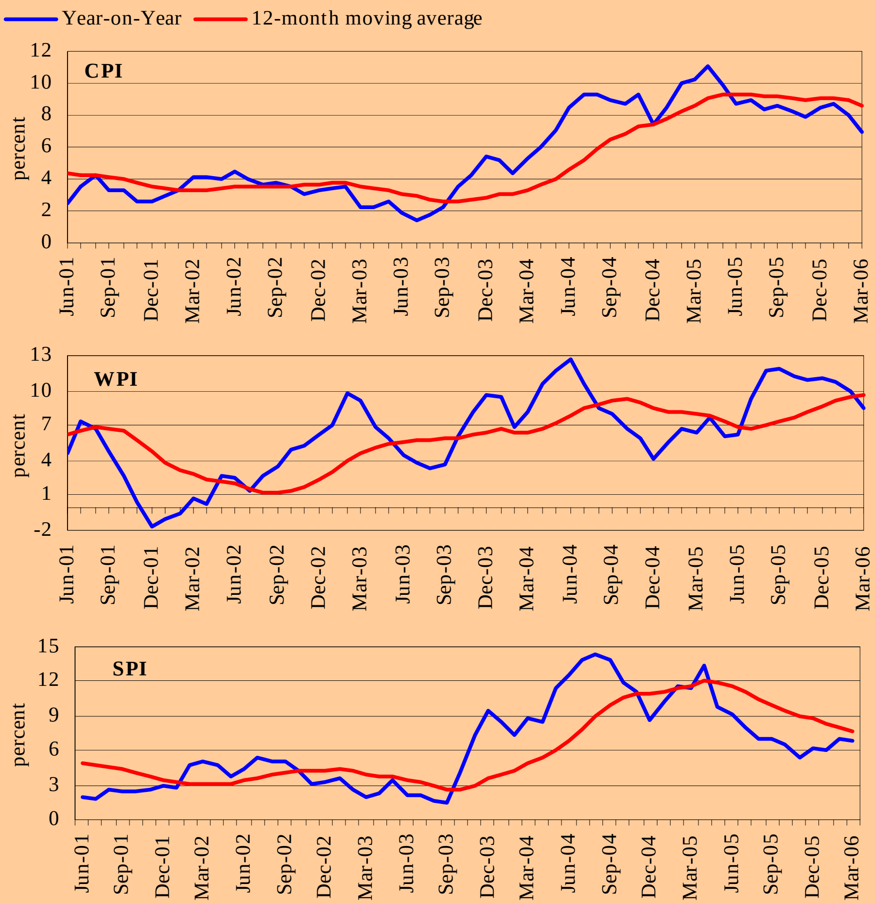


Table 1.2: Different Dimensions of Inflation

Index	General	Food	Non-Food	Past Five Years Average General	Past Five Years Average Food	Past Five Years Average Non-Food
Year-on-Year (March-06 *over* March-05)						
CPI	6.9	5.4	8.0	5.8	6.1	5.6
WPI	8.5	5.9	10.4	6.6	6.1	7.0
SPI	6.8	-	-	6.8	-	-
Period average (Jul-Mar FY06 *over* Jul-Mar FY05)						
CPI	8.2	7.4	8.9	5.5	5.9	5.3
WPI	10.6	7.5	12.8	6.3	5.8	6.8
SPI	6.7	-	-	6.2	-	-
12-month moving average (Apr 05 - Mar 06 *over* Apr 04 - Mar 05)						
CPI	8.6	8.6	8.7	5.5	6.0	5.2
WPI	9.6	8.2	10.6	6.3	5.8	6.7
SPI	7.6	-	-	6.2	-	-
Monthly (Mar-06 *over* Feb-06)						
CPI	0.2	0.2	0.3	0.8	1.3	0.4
WPI	0.1	0.1	0.0	1.0	0.6	1.3
SPI	0.8	-	-	0.8	-	-

2 Consumer Price Inflation

Consumer price inflation continued to decelerate sharply during March 2006, and was recorded at 6.9 percent (YoY) as compared to 10.2 percent in the same month last year. Both food and non-food components of CPI contributed to the sharp fall in the overall CPI inflation during March 2006; however, the contribution of sizeable deceleration in food inflation was more pronounced. While the strong base of last year is playing its role in the slowdown of inflation in the recent months, YoY decline in prices of some important food items, stagnant fuel prices and persistent deceleration in HRI inflation have also added to the current weakening of inflationary pressures in the economy (see **Figure 2.1**).

2.1 Food Inflation

Despite increase in the prices of milk, meat, sugar and that of some pulses and vegetables, inflation in the overall food group declined sharply to 5.4 percent (YoY) in March 2006 as against 13.3 percent inflation recorded in March 2005; food inflation in the month under review was the lowest rate recorded since December 2003 (see **Figure 2.2**)

Figure 2.1: CPI & Major Groups Inflation (YoY)

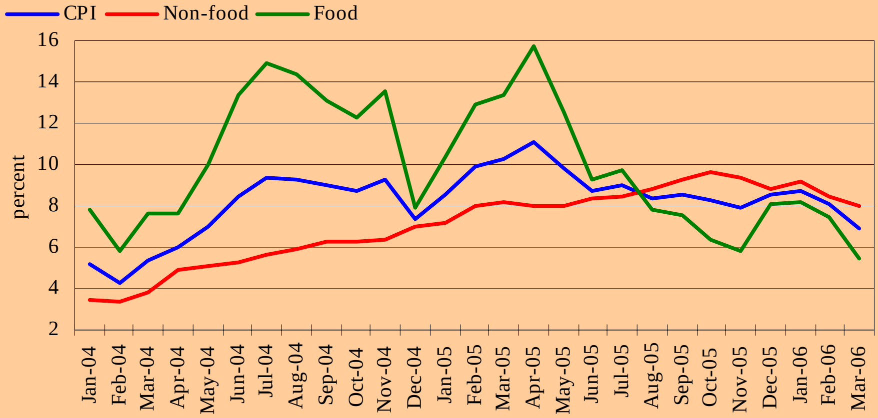
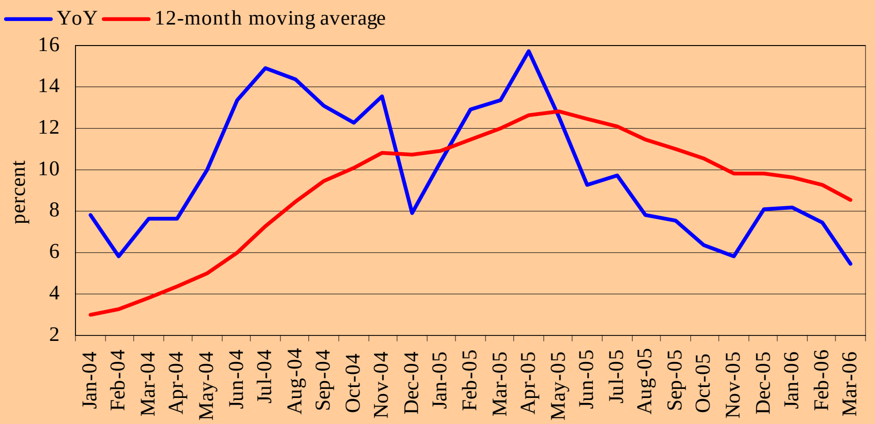
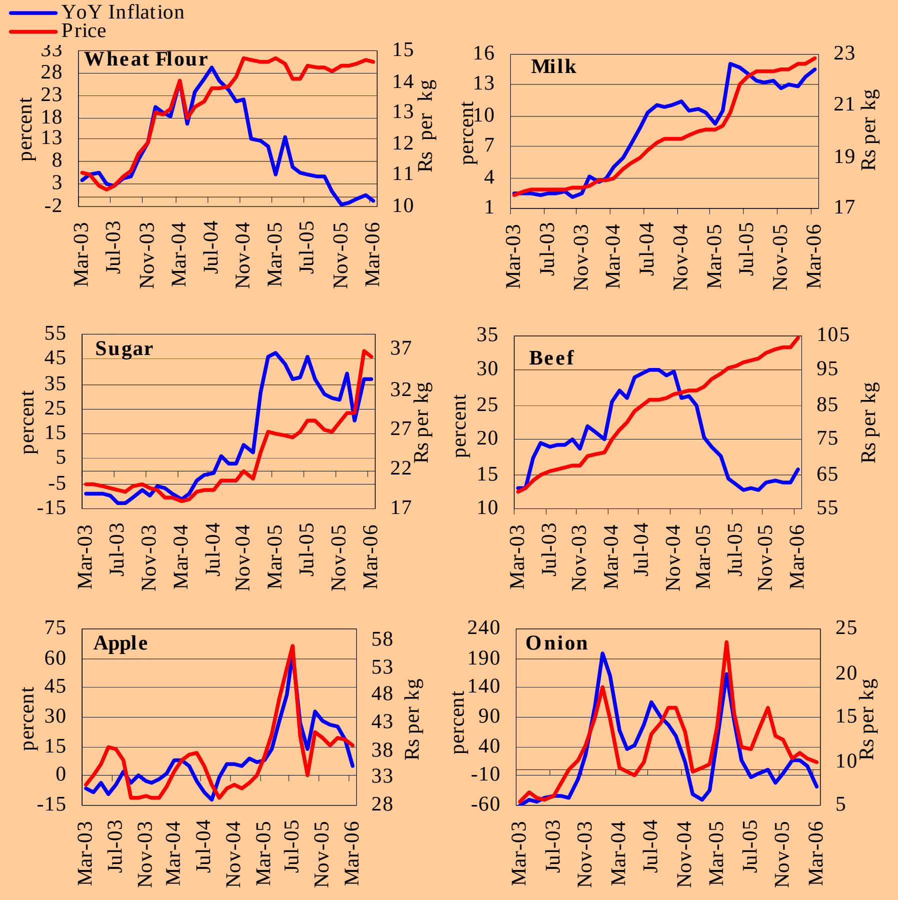


Figure 2.2: Food Group Inflation



A detailed look into the price movements of individual items in the CPI food group reflects that it was mainly the YoY decline in prices of wheat and its products, pulses masoor and gram, vegetable ghee, cooking oil, poultry, and vegetables including tomato and onion, which overshadowed the high inflation in sugar and milk prices along with the increasing price of meat and some other pulses (see **Figure 2.3**).

Figure 2.3: Price Trends in Key Food Items



Like the previous month, in March 2006 too, milk remained the highest contributor to CPI food inflation and second highest to the overall CPI inflation, followed by the sugar price inflation (see **Table A4** in Annexure A).

2.2 Non-food Inflation

Non-food inflation continued to decelerate, and was recorded at 8 percent YoY during March 2006. In fact it was the stability of fuel prices (domestic), and the persistent deceleration in the *house rent index* (HRI) inflation that made the CPI non-food inflation to drop sharply from 9.2 percent YoY in January 2006 to 8 percent in March 2006. This sharp fall in YoY non-food inflation has finally made the 12-month moving average of non-food inflation to decelerate during March 2006 for the first time during the last two years (see **Figure 2.4**). HRI inflation that is the largest contributor to both the overall CPI inflation and non-food inflation due to its high weight, is decelerating continuously on the back of persistent deflation in construction raw material prices[2] (see **Figure 2.5**).

Figure 2.4: Non-food Inflation

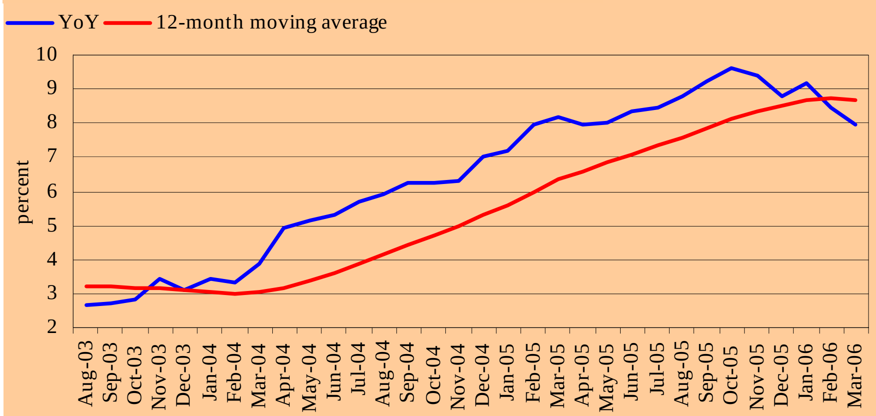
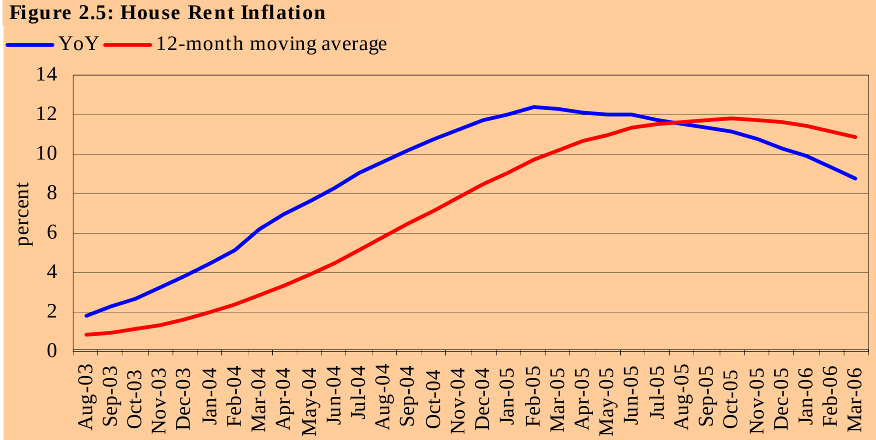


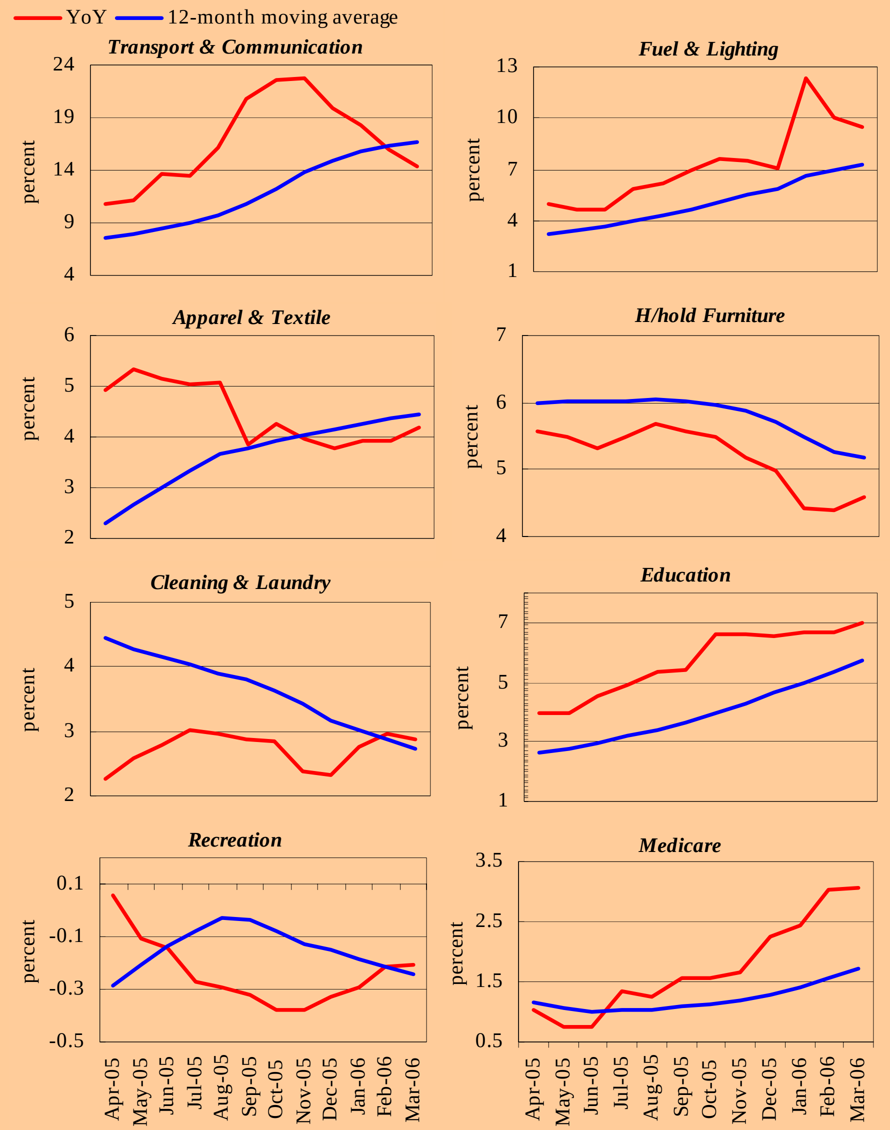
Figure 2.5: House Rent Inflation



[2] Despite increase in cement prices, the wholesale price index of raw material as a group is declining since December 2005, as discussed in **Section 3**.

In addition to the house rent index, the sharp deceleration in inflation recorded by transport & communication, and fuel & lighting also contributed significantly to the deceleration of CPI non-food inflation during March 2006 (see **Figure 2.6**).

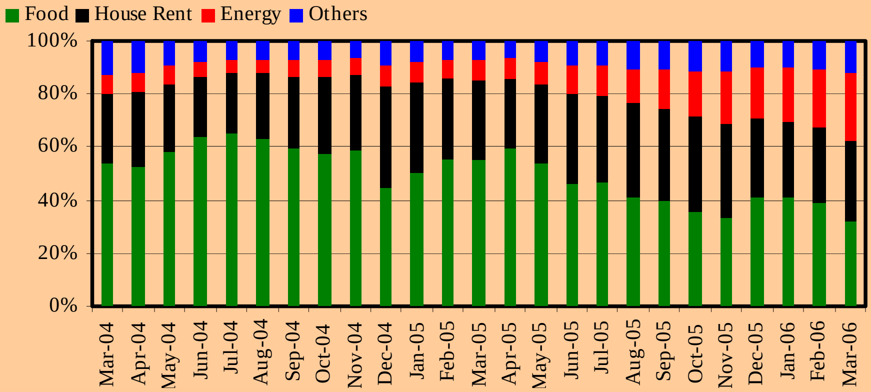
Figure 2.6: CPI Non-food Sub-Indices' Inflation



2.3 Major Contributions

As the food group witnessed a sharp decline in inflation, its contribution to the overall CPI inflation further squeezed during March 2006. Food group contributed 31.6 percent to the headline inflation during March 2006 that was far less than its contribution of 52.8 percent during the same month last year. On the other hand, the contribution of non-food inflation increased over the same period with energy as a major contributor to CPI inflation (see **Figure 2.7**).

Figure 2.7: Weighted Contribution to the Headline Inflation (YoY)



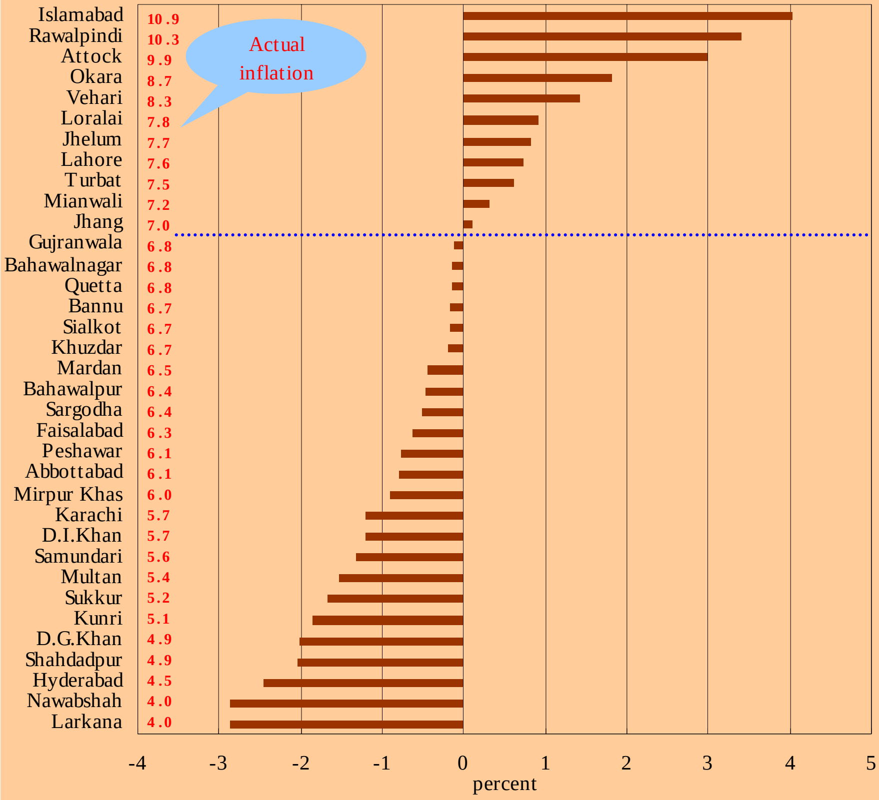
Energy: *Fuel & lighting and Transport & communication;*
Others: *Apparel & textile, Household furniture & equipment, Recreation, Education, Cleaning, laundry & personal appliances, and Medicare.*

During March 2006, inflation in the prices of ten out of the 374 items in the CPI basket, contributed to more than 75 percent of the overall inflation. Like in the last month, except HRI, all items belong to either *food* or *energy* group of CPI. Within the *food* group, milk and sugar (with a combined weight of 8 percent in the CPI basket) contributed to 24.2 percent to the overall CPI inflation, which was close to the contribution of the heavy weight HRI that contributed 29.7 percent during March 2006 (see **Table A4** in Annexure A).

2.4 Regional Incidence of Inflation

During March 2006, as the inflationary pressures weakened further, most of the cities in the sample recorded lower-than-mean inflation. The federal capital Islamabad still witnessed highest inflation within the sample; all the provincial capitals, except Lahore, recorded below-the-average inflation during March 2006. Out of 35 cities in the sample, only 11 cities recorded an inflation rate of above the average rate prevailing for the whole economy (see **Figure 2.8**)

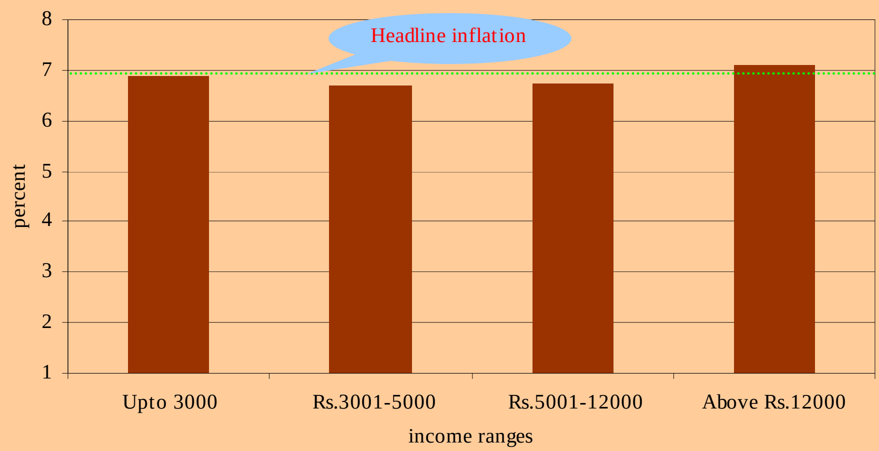
Figure 2.8: City-wise YoY Inflation in March 2006 - (Deviations from Mean)



2.5 Socio-economic Incidence of Inflation

All the income groups recorded below-the-average inflation during March 2006, except the highest income group having income above Rs 12000 per month. This group recorded slightly higher inflation than the average inflation in the economy. This difference occurred due to the fact that the pressures were high in the non-food inflation during March 2006 as compared to the food inflation over this period (see **Figure 2.9**).

Figure 2.9: Income Group-wise Inflation in Mar-06 (YoY)

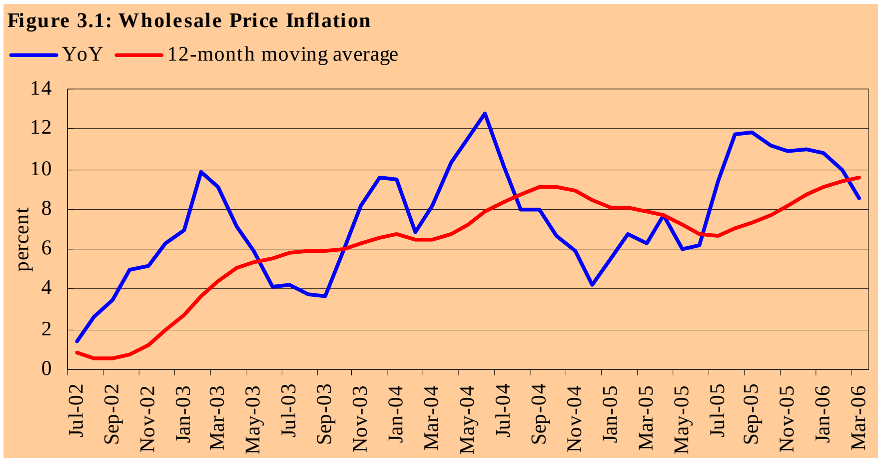


3 Wholesale Price Inflation

The wholesale price inflation continued its decelerating trend in March 2006 and declined to 8.5 percent (YoY) – a decline of 1.4 percentage points from the previous month's rate. The decline in WPI inflation has been supported by a deflation in some major crops like wheat, rice, grams, etc., poultry products, some raw material and building material other than cement. The upward pressures on WPI has been exerted by double digit inflation in prices of sugar, meat, some pulses, milk, cement and bricks. Moreover, YoY inflation in fuel prices is also in double digits despite showing stability for the last six to seven months. As a result of the existence of such inflationary pressures, the WPI inflation both in terms of 12-month moving average and period average is rising despite YoY deceleration (see **Table 3.1** and **Figure 3.1**).

Table 3.1: WPI Inflation (Period average)

				July-March		
WPI and its components	**FY03**	**FY04**	**FY05**	**FY04**	**FY05**	**FY06**
Food	3.5	7.0	10.7	5.7	10.7	7.5
Raw materials	14.4	17.0	-18.1	18.6	-17.9	9.6
Fuel, lighting & lubricants	12.5	2.8	15.8	-0.3	14.1	28.9
Manufactures	1.7	7.9	1.1	7.7	2.0	2.7
Building materials	1.7	22.9	13.7	21.0	16.9	-0.6
Overall index	**5.6**	**7.9**	**6.8**	**6.7**	**6.8**	**10.6**
Overall excl. food	***7.3***	***8.7***	***3.6***	***7.4***	***4.1***	***12.8***
Overall excl. fuel	***3.9***	***9.2***	***4.5***	***8.5***	***5.0***	***5.7***
Overall excl. food and fuel	***4.3***	***11.7***	***-1.8***	***11.7***	***-0.9***	***3.6***



During March 2006, groups' contributions to wholesale price inflation remained almost the same as were during the last two months; however, when compared with the last year, significant changes in the relative contributions of commodity groups to overall WPI inflation can be observed (see **Figure 3.2**). The weighted share of *food* fell below 30 percent in March 2006 from more than 70 percent in the same month last year; the contributions by *raw material* and *manufactures* groups reversed from negative to positive while the contribution of building material remained negative.

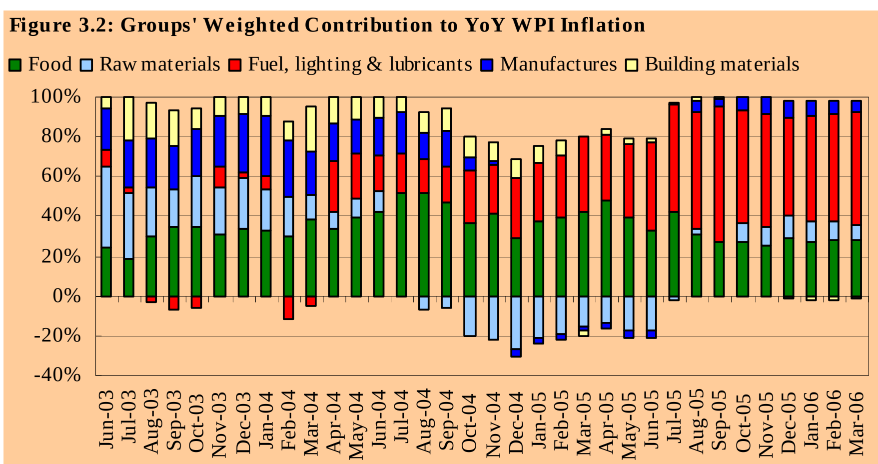
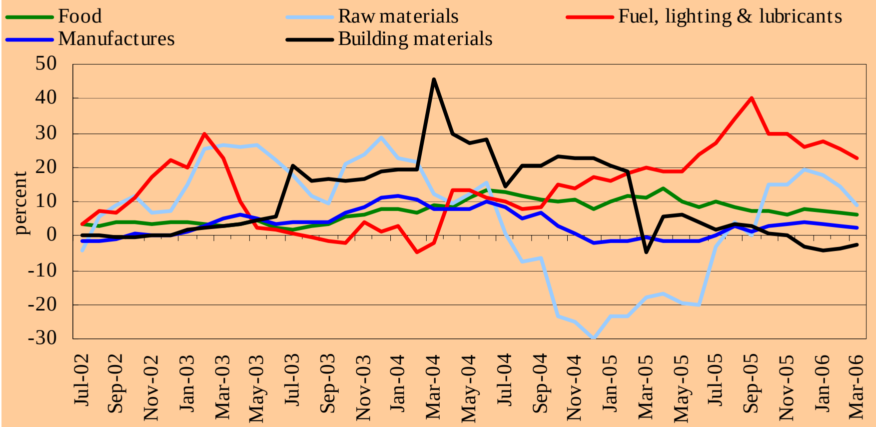


Figure 3.3 shows the trend in group-wise inflation of WPI. Inflation in all the groups of wholesale price index continued their declining trend during March 2006. Notable is the fuel, lighting and lubricant group that has witnessed a decline in inflation from 40 percent in September 2005 to just above 20 percent in March 2006.

Figure 3.3: Group-wise Wholesale Price Inflation (YoY)



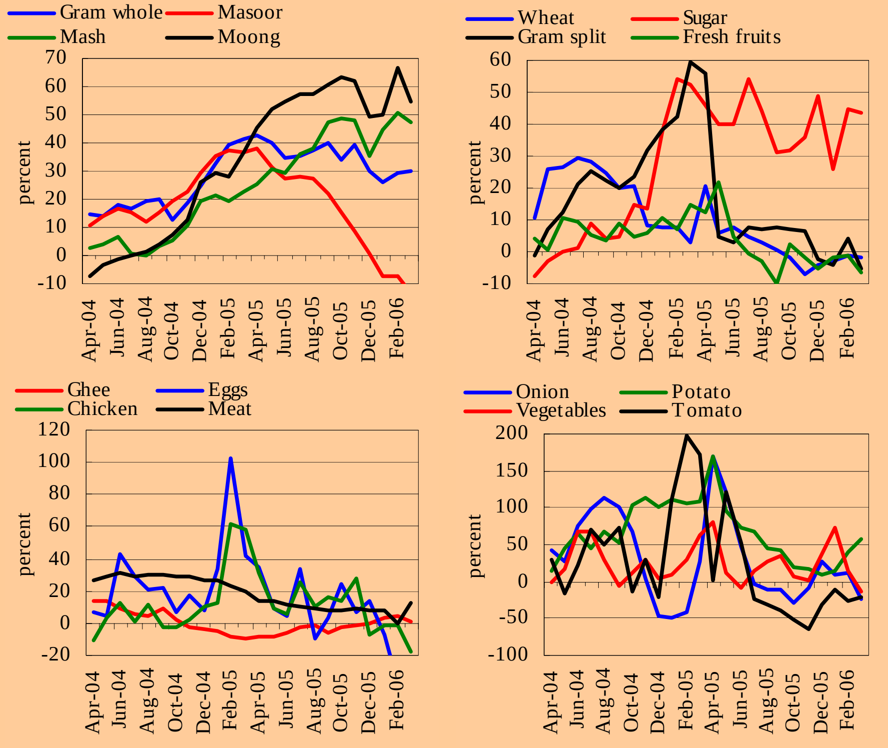
Within the food group, wholesale prices of wheat, rice, maize, bajra, gram (split), masoor, onion, fresh fruits, cooking oil, eggs and chicken showed YoY deflation in March 2006, while wholesale prices of some other commodities including sugar, pulses mash and moong, potatoes and meat increased (see **Figure 3.4**).

Among the other groups of WPI, building material index continued showing YoY deflation that was supported by decline in prices of iron bars and paint and varnishes. An increase of more than 20 percent (YoY) in the price of cement contributed only to the extent that the rate of deflation of this group declined.

The raw material index decelerated to 8.9 percent (YoY) in March 2006 showing a decline of more than 5 percentage points from its previous month's rate. Cotton seed, livestock products (skin, wool, hides), and pig iron were the main items supporting deceleration in the index of this group.

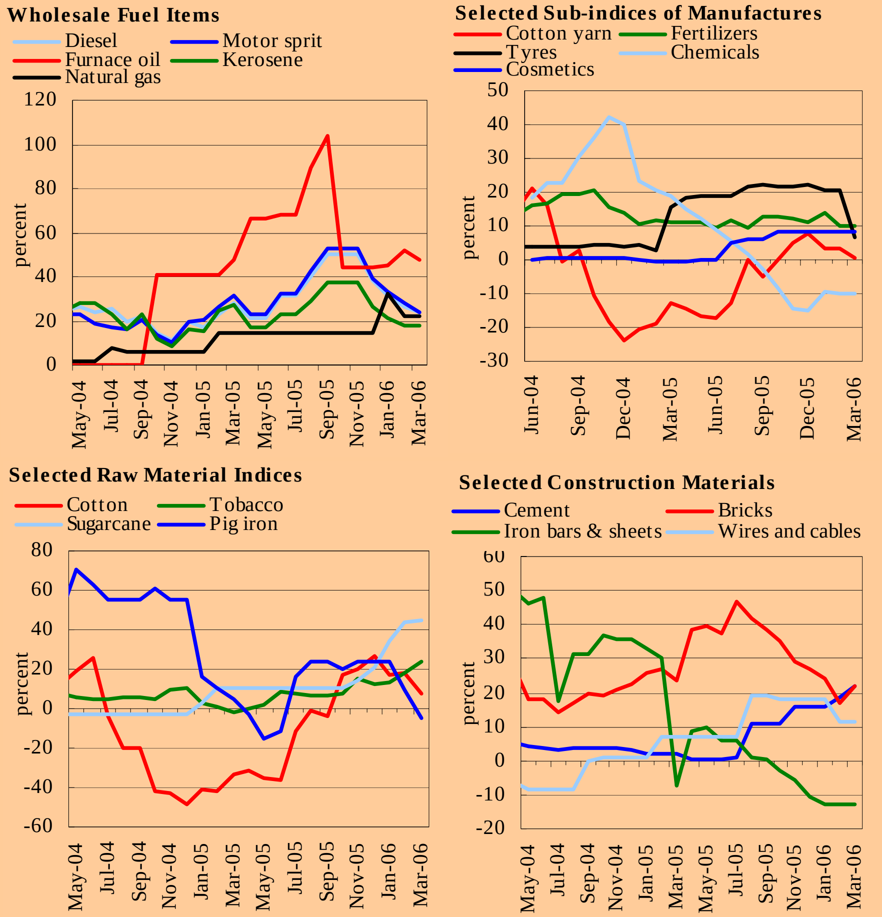
The fuel, lighting and lubricant group, though decelerated in March 2006, still showed a YoY inflation of more than 20 percent. The annual rate of increase in *manufactures* index, on the other hand, is just around 2 percent with a continuing decelerating trend during the last three months; the deceleration is supported by

Figure 3.4: Price (Wholesale) Trends in Selected Food Items



stability in fertilizer prices and decline in prices of cotton yarn, chemicals and dying materials (see **Figures 3.5** and **Table A7** in Annexure A).

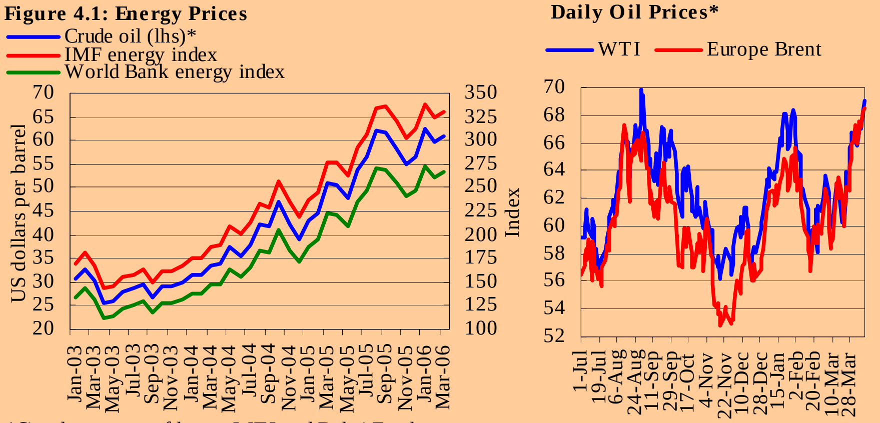
Figure 3.5: Selected Wholesale Price Indices Inflation (YoY)



4 Global Prices of Key Commodities

Crude oil prices in the international market increased again despite downward revision in world demand by International Energy Agency. The crude oil price rose by 2.0 percent during March 2006 to US$ 60.9 per barrel after showing a decline of 4.2 percent during February 2006 (see **Figure 4.1**). While the decline in last month was attributable to improved US inventory data, the recent surge in oil prices is largely due to concerns over future supplies as Iran continued to resist international pressure to stop uranium enrichment that may lead to possible economic sanctions.

Figure 4.1: Energy Prices



*Simple average of brent, WTI and Dubai Fateh

*Spot, FOB; Source:

The prices of palm and sunflower oil declined by 2 percent and 3 percent respectively during March 2006 over the last month while the price of soybean oil maintained the rising trend, although modestly (see **Figure 4.2**).

The prices of both wheat and sugar witnessed decline in the international market during March 2006 by 3 percent and 5 percent respectively after showing rising trends during the last couple of months (see **Figure 4.3**). Sugar price declined from US cents 18.1 per ounce in February 2005 to US cents 17.1 per ounce in March 2006.

Figure 4.2: Edible Oil Prices

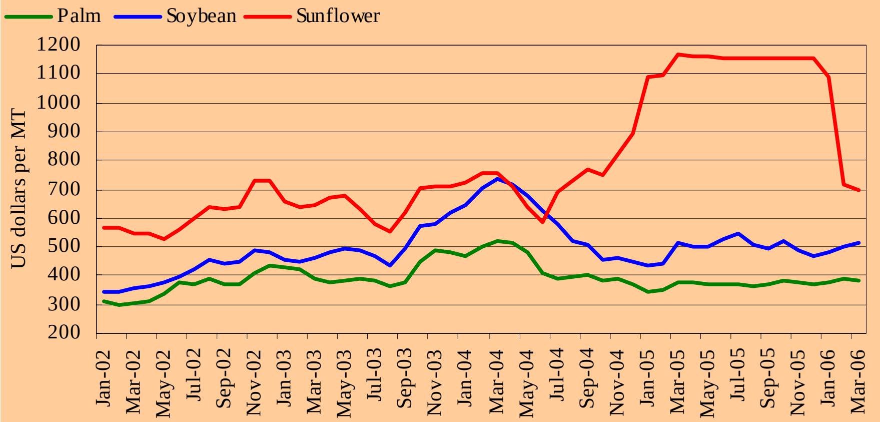
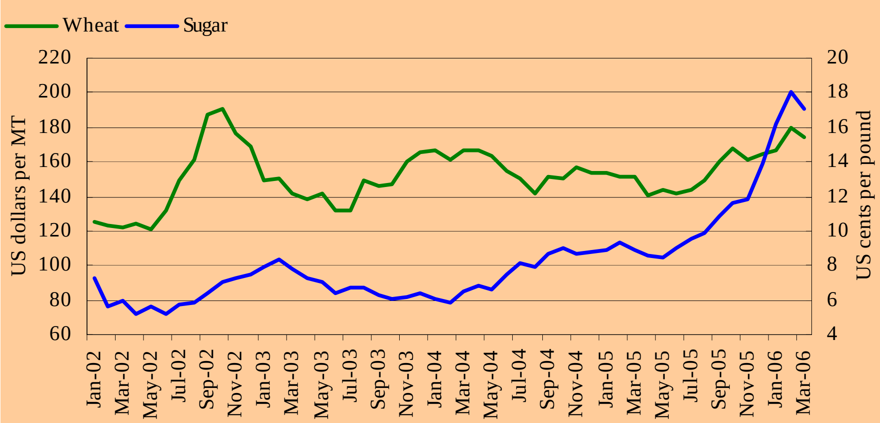
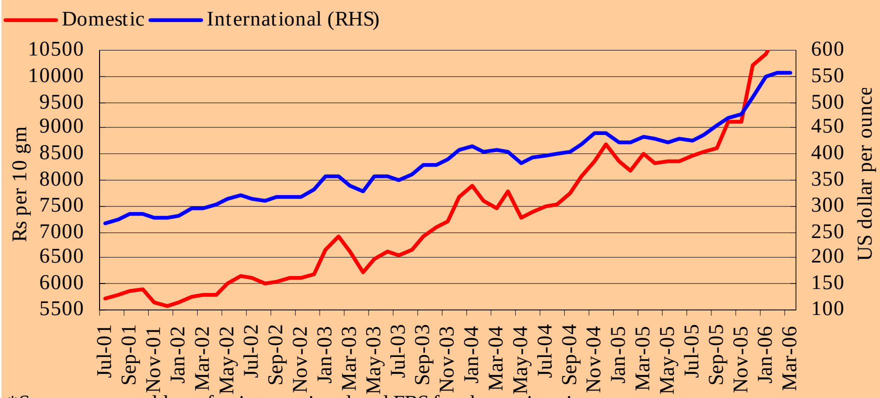


Figure 4.3: Sugar and Wheat Prices



During March 2006, gold rose by 28.3 percent to US$ 557 per ounce from US$ 434.3 per ounce in March 2005 (see **Figure 4.4**). The gold prices in the domestic market also followed the international market and increased by 26.5 percent (YoY) to Rs 10,742.6 per 10 gram during the month. The steel prices in international market continued to remain stable. The World Bank index of 8 steel products maintained the level of 136.8 since July 2005, showing a 1.3 percent

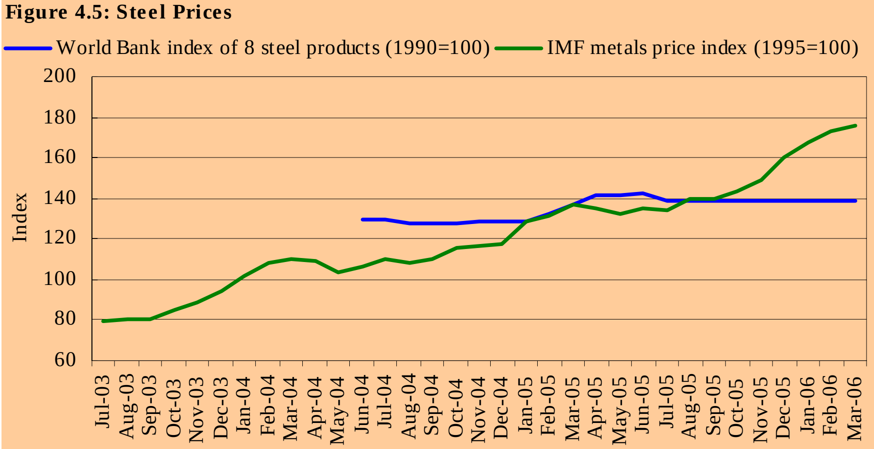
Figure 4.4: Gold Prices



*Source: www.gold.org for international and FBS for domestic prices

YoY increase during March 2006. However, (IMF) metal price index,[3] continued to show a rising trend with an increase of more than 28 percent during March 2006 (see **Figure 4.5**). The rise in metal prices was lead by a sharp increase in the prices of copper, zinc, tin, lead and aluminium.

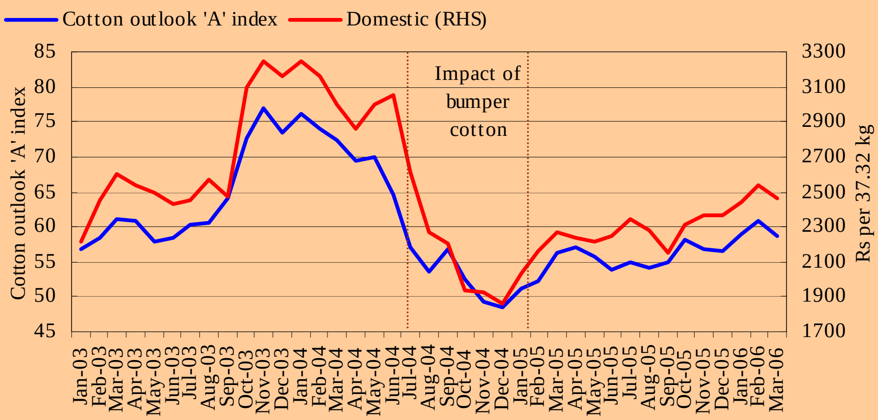
Figure 4.5: Steel Prices



[3] The components include copper, aluminium, iron ore, tin, nickel, lead, zinc, and uranium price indices.

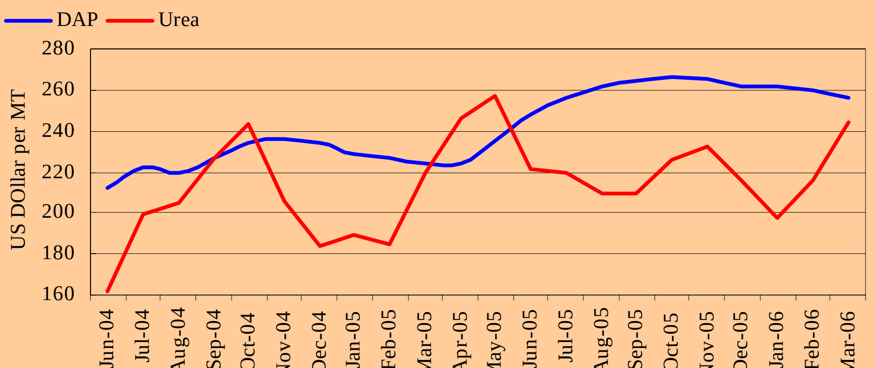
The global cotton prices declined by 3 percent in March 2006 over the previous month; however, when compared with the corresponding month of last year, a rise of 4.2 percent has been witnessed (see **Figure 4.6**).

Figure 4.6: Cotton Prices



The urea price witnessed a sharp increase during March 2006 over the previous month and prices of DAP maintained the declining trend. Nevertheless, the prices of both types of fertilizer remained significantly higher compared to last year (**see Figure 4.7**).

Figure 4.7: Fertilizer Prices



Source: World Bank

5 Sensitive Price Indicator (SPI)

Where the CPI food inflation decelerated sharply, the same impact was witnessed in the SPI inflation as well. Weekly SPI inflation was recorded at 6.4 percent during March 2006, which is the lowest during the last two years (see **Figure 5.1**). The slowdown in SPI inflation was mainly contributed by the falling food prices; in particular, price of wheat and its products, poultry and some vegetables recorded significant decline in March 2006 (see **Table A8** in Annexure A).

Figure 5.1: Weekly SPI Inflation

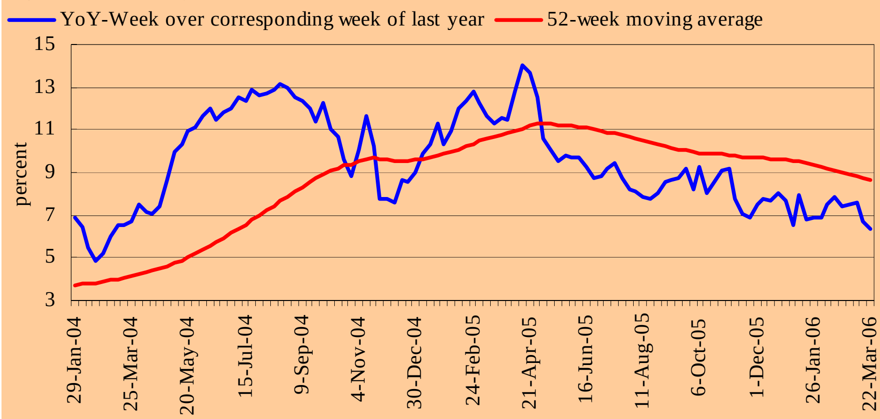
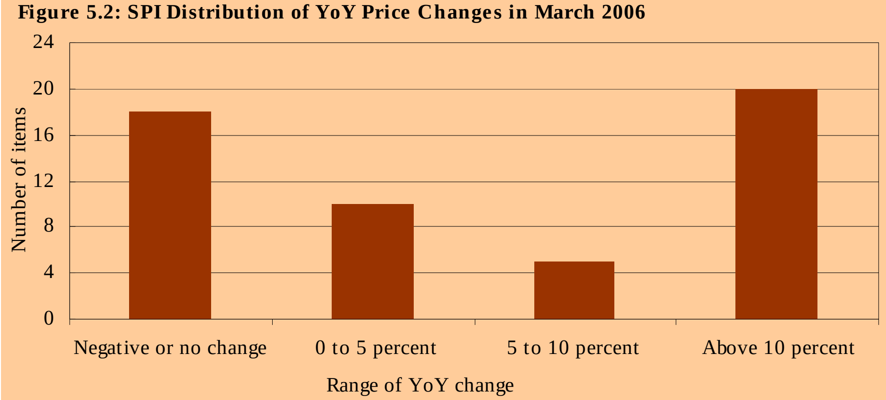


Figure 5.2 explains the distribution of items in the SPI basket falling under different ranges of price changes during March 2006. Most of the items in the SPI basket have shown single digit inflation during the month, while prices of fuels and some of the food items, including sugar, milk, potatoes, and some pulses, still recorded high double digit inflation during the same month.

Figure 5.2: SPI Distribution of YoY Price Changes in March 2006



6 Wage Inflation

The wage inflation continued to decelerate during March 2006 though it still remained higher compared to the last year. The YoY rate of change in the average wage of the five construction workers fell to 15.2 percent in March 2006 from 16.4 percent in the last month (see **Figure 6.1**). The decline in wage inflation was largely due to high base effect as wages, particularly of skilled labourers started to show double-digit rise from January 2005 (see **Figure 6.2**). Persistent decline in food inflation during the last couple months is probably another factor that explains deceleration in wage inflation (see **Table 6.1**).

Figure 6.1: Wage Inflation (YoY percent change in average wage)

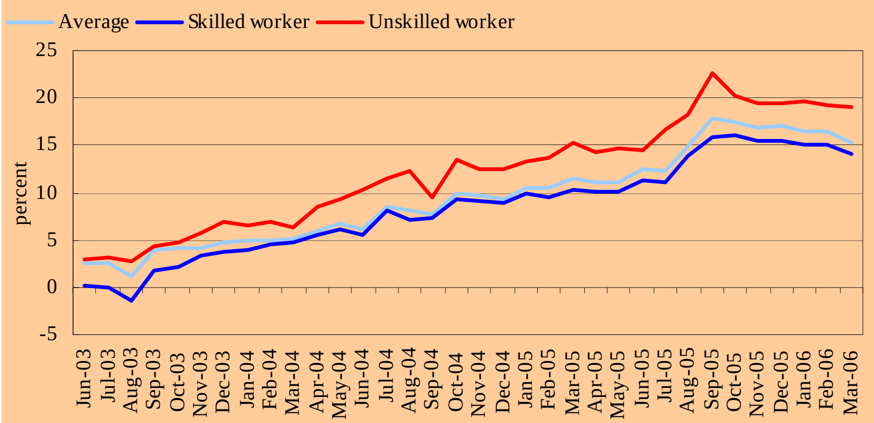


Figure 6.2: Increase in Skilled Labor Wages (YoY percent change in average wage in 35 cities)

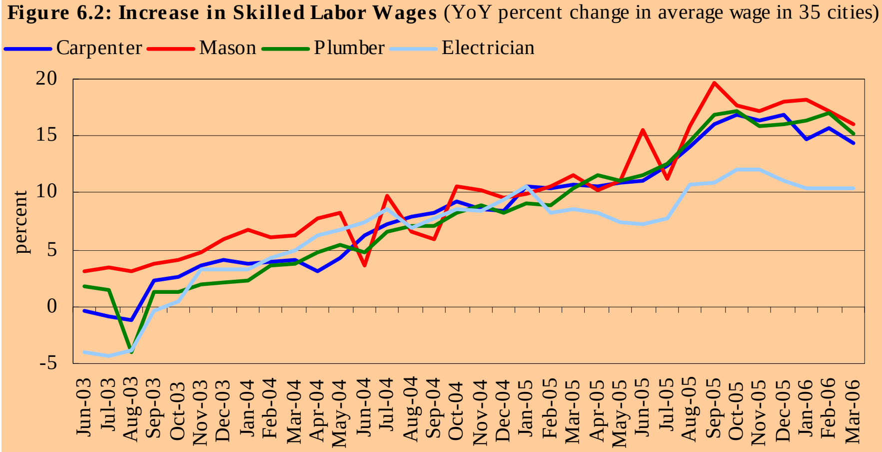
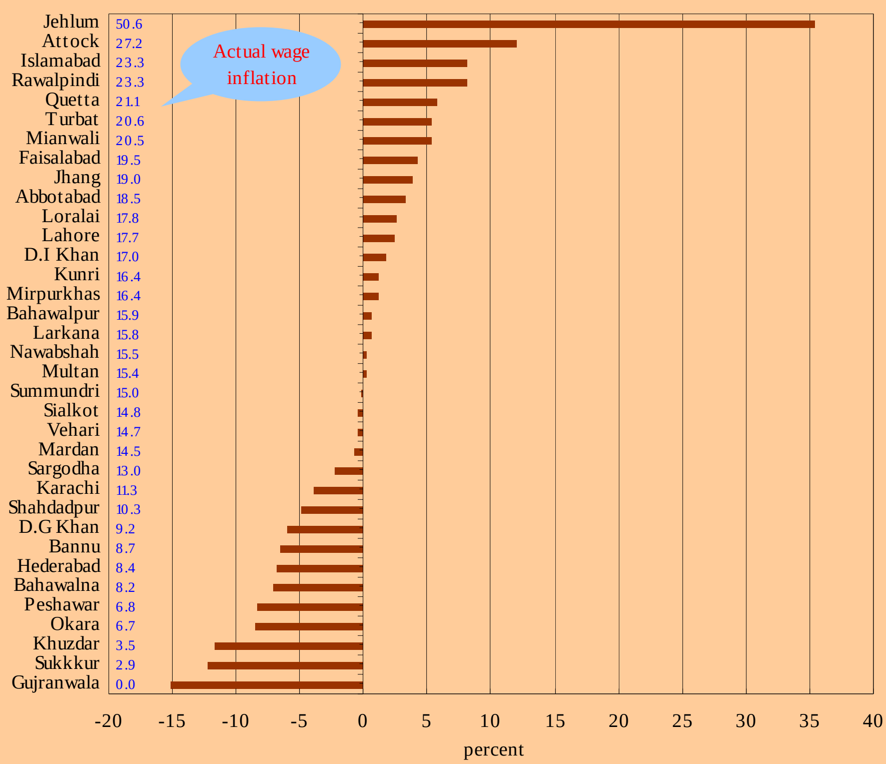


Table 6.1: Wage Inflation (YoY)

	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06
	12.4	***14.9***	***17.8***	***17.5***	***16.8***	***17.1***	***16.4***	***16.4***	***15.2***
Carpenter	12.3	14.1	16.1	16.9	16.3	16.9	14.7	15.8	14.4
Mason	11.3	15.8	19.7	17.6	17.2	18.0	18.2	17.2	16.0
Laborer	16.7	18.3	22.6	20.1	19.5	19.5	19.6	19.3	19.0
Plumber	12.6	14.6	16.9	17.2	15.8	16.0	16.4	17.0	15.1
Electrician	7.8	10.8	10.8	12.1	12.0	11.0	10.4	10.4	10.3

Figure 6.3: City-wise Wage Inflation--Difference from Mean in March 2006



City-wise variations in average daily wages from country averages are shown in **Figure 6.3**. Average daily wages by type of construction worker is given in **Table 6.2**.

Table 6.2: Daily Labor Wages (Rs. per day)--Average in 35 Cities

	Carpenter	Mason	Laborer	Plumber	Electrician	Average
			Annual Averages			
FY03	218.0	225.4	107.7	219.8	216.4	197.4
FY04	224.5	237.4	114.5	225.0	221.9	204.6
FY05	245.8	261.4	129.5	245.5	240.3	224.5
FY06 (Jul-Mar)	279.4	300.9	151.9	279.7	263.1	254.3
			Monthly averages			
Jan-05	248.5	263.3	130.4	245.8	242.8	223.9
Feb-05	248.2	265.6	130.9	245.7	242.8	224.8
Mar-05	250.5	269.2	132.5	250.0	244.3	227.6
Apr-05	253.3	269.8	134.4	255.4	247.7	230.0
May-05	256.0	273.1	136.5	256.8	247.7	232.4
Jun-05	258.1	275.2	138.5	258.6	248.8	234.4
Jul-05	264.2	280.9	142.5	264.6	252.1	239.7
Aug-05	269.9	284.1	145.8	270.2	256.0	244.1
Sep-05	275.8	293.6	149.3	276.6	257.7	250.1
Oct-05	280.8	302.1	152.2	280.4	263.8	255.4
Nov-05	281.5	304.2	152.9	281.3	265.5	256.5
Dec-05	283.8	308.6	154.7	282.5	266.8	258.8
Jan-06	284.9	311.2	156.0	286.1	267.9	260.6
Feb-06	287.4	311.4	156.2	287.4	267.9	261.6
Mar-06	286.5	312.1	157.7	287.8	269.6	262.2

Source: Federal Bureau of Statistics

ANNEXURES

Annexure A

Table A1: CPI Inflation (YoY) by Groups						
	Weights	**Mar-02**	**Mar-03**	**Mar-04**	**Mar-05**	**Mar-06**
I. Food Group	**40.3**	3.8	0.5	7.6	13.3	5.4
II. Non-Food Group	**59.7**	4.4	3.4	3.9	8.2	8.0
Apparel, Text.	6.1	3.4	4.1	2.0	3.4	4.2
House Rent	23.4	2.5	0.5	6.2	12.3	8.7
Fuel & Lighting	7.3	11.5	5.1	3.0	6.0	9.5
H/h Furn. & Equip.	3.3	3.5	3.3	4.3	5.7	4.6
Transport & Com.	7.3	6.5	8.4	1.4	10.6	14.3
Recreation, Enter.	0.8	5.4	0.9	-1.5	0.1	-0.2
Education	3.5	5.4	4.8	3.9	2.5	7.0
Cleaning & Laundry	5.9	2.2	5.5	2.7	4.8	2.9
Medicines	2.1	2.5	2.6	1.4	1.0	3.1
Headline	**100**	**4.2**	**2.2**	**5.3**	**10.2**	**6.9**

Table A2: Distribution of Price Changes of CPI Basket, March 2006 (YoY)						
			Number of Items in Each Inflation Range			
Groups	**Group Inflation**	**Total Number of Items**	**Decrease or no change (0 % or less)**	**Subdued increase (0 to 5%)**	**Moderate increase (5 to 10%)**	**Double digit increase (over 10%)**
I. Food Group	**5.4**	**108***	**31**	**28**	**22**	**27**
Food, Bev.	5.4	108	31	28	22	27
II. Non-Food Group	**8.0**	**250**	**82**	**84**	**49**	**35**
Apparel, Text.	4.2	42	5	24	11	2
House Rent	8.7	1	0	0	1	0
Fuel & Lighting	9.5	15	8	0	1	6
H/h Furn. & Equip.	4.6	44	3	27	14	0
Transport & Com.	14.3	43	13	3	7	20
Recreation, Enter.	-0.2	16	11	3	2	0
Education	7.0	24	6	8	6	4
Cleaning & Laundry	2.9	36	14	14	5	3
Medicines	3.1	29	22	5	2	0
Overall	**6.9**	**358**	**113**	**112**	**71**	**62**

* Prices of 16 seasonal items were not reported during March 2006.

Table A3: Distribution of Price Changes - Selected CPI Items, March 2006

Groups	Decrease or no change	Subdued increase (upto 5%)	Moderate increase (5 to 10%)	Double digit Increase
Food Group	Eggs (farm) Tomato Vegetable ghee Wheat Flour Bag Kinnu	Tea Loose Kenya Av.Qlty Rice Basmati 385/386 Rice Irri-6 (Sindh/Punjab) Pepper black	Toffee (Hilal) Apple Bread Tandoori Bananas Cooked Mutton (Av. Hotel)	Potatoes Milk Fresh Sugar refined Beef with bone Cold drink
Apparel & Textile	Ladies sponge chappal Bata Gents sandal Bata Gents sponge chappal Bata	Tailoring Aw-Suit (M) Long Cloth Av.Qlty. Lawn Av.Qlty.	Tailoring coat-pant suit Linen Av.Qlty Tailoring Suit Female	Ladies sandal Bata Gents shoe Service
House Rent Index			HRI	
Fuel & Lighting	Bulb Philips 100-Watt Elect.charges	Gas cylinder stand. size		Gas charges Firewood whole Kerosene Oil
H/hold Furniture	Electric Juicer Refg. Dawlence 10 cft Sewing Machine(Singer)	Hand stitching needle M.size Water-set S.Steel Sup.Qlty	Marriage Hall Household Servant Female Air conditioner Pel	
Transport & Comm.	Internet Charges Air Fare Econ. Class. Motorcycle Honda Local sall charges	Bicycle with tyres & tubes Train Fare A/C Slp. 1-100km.	Train Ist Slp.-500km Full tonga charges	CNG filling charges Bus fare Min (within city) Petrol Super High Speed Diesel
Recreation	Video Game Sega V.C.P. Daily "Dawn"	Dry Cell 1.5 Volt(Local) Tape Recorder	Cinema High Class	
Education	Comm. C.D. Govt.Coll.Fee Ist.Year Govt.Coll.Fee 4th.Year	Ball Pen (Local) Maths Book Class V	English Book IX or X School Fee secondary Eng. .med. School Fee Primary Eng. med.	English Book Class V1 Urdu Book Class Ix/X
Cleaning & Laundry	Toilet Paper Roll Toothpaste 70 Grm	Blade 7 o'clock Disposable Razor Gillet Lipstick S.Miss/Medora Artificial jewellary	Washing (Kamiz-Shalwar) Haircut Charges For Men	Washing Ch. Shirt Gold Tezabi 24 Ct Silver Tezabi 24 Ct
Medicare	Glaxos-D (450 Grms) Entox Tab. Brufen Tabs 200-Mg.	Jouhar Joshanda Septran Tablets Doctor (Mbbs) Clinic Fee		

Table A4: Top Ten CPI Items

A. Ranked by Weighted Contribution

S.#	Items	Unit	Weights	Price Mar-06	Year-on-Year change Mar-04	Year-on-Year change Mar-05	Year-on-Year change Mar-06	Weighted contribution
1	House rent index	Month	**23.43**	134.3	6.2	12.3	8.7	29.7
2	Milk fresh (unboiled)	Ltr	6.53	23.1	5.0	9.2	14.5	13.7
3	Sugar refined	Kg	1.95	36.2	-11.2	47.3	37.3	10.5
4	Petrol super	Ltr	1.73	56.5	4.6	30.7	23.6	5.9
5	Potatoes	Kg	0.53	17.2	2.4	74.1	53.8	4.2
6	Beef with bone av.qlty.	Kg	1.61	104.7	25.4	20.2	15.6	3.6
7	Gas chrg10.1157 - 13.4876mmbtu	Mmbtu	0.93	352.8	2.0	15.5	22.2	3.0
8	Firewood whole	40 kg	0.48	147.2	16.1	17.0	26.4	1.8
9	Mutton av.qlty.	Kg	1.09	195.4	28.0	13.6	11.3	1.8
10	Pulse moong (washed)	Kg	0.22	47.6	-7.5	22.3	45.1	1.5
Total			**38.50**					**75.6**

B. Ranked by Percentage Change

S.#	Items	Unit	Weights	Price Mar-06	Year-on-Year change Mar-04	Year-on-Year change Mar-05	Year-on-Year change Mar-06	Weighted contribution
1	Potatoes	Kg	0.53	17.2	2.4	74.1	53.8	4.2
2	Pulse moong (washed)	Kg	0.22	47.6	-7.5	22.3	45.1	1.5
3	Gram whole yellow (average quality)	Kg	0.15	62.8	0.9	31.4	44.0	0.9
4	Garlic	Kg	0.14	58.2	6.9	18.6	40.5	0.8
5	Pulse mash (washed)	Kg	0.20	52.7	-3.3	13.4	38.2	1.1
6	Sugar refined	Kg	1.95	36.2	-11.2	47.3	37.3	10.5
7	Gur (average quality)	Kg	0.07	33.9	-6.7	41.4	35.5	0.4
8	Minibus fare minimum within city	Ticket	0.14	5.9	-1.4	8.0	33.8	0.7
9	Bus fare min (within city)	Ticket	0.14	5.2	2.8	5.9	31.8	0.6
10	Train fare eco. 1-100 km.	P/km	0.01	0.5	0.0	0.0	28.6	0.0
Total			**3.56**					**20.8**

Table A5: City-wise Inflation (YoY) by Income Groups, March 2006

	Income	Upto Rs 3000			3001-5000			5001-12000			above 12000			combined		
#	Cities	General	Food	Non-Food	General	Food	Non-Food	General	Food	Non-Food	General	Food	Non-Food	General	Food	Non-Food
1	Lahore	8.0	6.3	9.2	7.6	5.2	9.3	7.5	4.8	9.5	7.7	4.8	9.9	7.6	4.9	9.7
2	Faisalabad	5.6	3.1	7.4	5.9	3.5	7.7	6.0	3.5	7.9	6.5	2.9	9.1	6.3	3.2	8.5
3	Rawalpindi	10.1	10.3	9.9	9.9	9.6	10.1	10.2	10.0	10.3	10.5	9.8	11.0	10.3	9.9	10.6
4	Multan	5.8	3.2	7.6	5.0	2.2	7.1	5.1	1.8	7.5	5.9	1.9	8.9	5.4	1.9	7.9
5	Gujranwala	6.1	5.3	6.8	6.0	4.4	7.2	6.7	5.0	7.9	7.6	6.3	8.5	6.8	5.1	7.9
6	Islamabad	10.9	9.9	11.6	10.9	10.5	11.3	11.0	10.8	11.1	10.9	11.1	10.8	10.9	11.0	10.9
7	Sargodha	7.7	5.9	9.0	7.1	5.7	8.1	6.5	5.3	7.3	5.8	3.3	7.7	6.4	4.8	7.5
8	Sialkot	7.2	7.3	7.1	7.1	7.2	6.9	6.7	6.3	7.0	6.7	5.7	7.4	6.7	6.1	7.2
9	Bahawalpur	6.8	4.4	8.6	7.1	4.7	8.8	6.6	4.1	8.3	5.8	1.7	8.9	6.4	3.6	8.5
10	Karachi	5.4	3.8	6.6	5.2	2.4	7.2	5.2	2.2	7.3	6.2	2.1	9.2	5.7	2.2	8.2
11	Hyderabad	4.6	3.7	5.3	4.3	2.9	5.2	4.4	2.9	5.5	4.6	2.6	6.1	4.5	2.9	5.6
12	Sukkur	5.2	4.6	5.6	5.1	4.0	5.8	5.2	4.4	5.8	5.4	4.3	6.1	5.2	4.3	5.9
13	Larkana	4.3	3.1	5.2	4.0	3.1	4.7	4.1	3.1	4.9	3.8	2.2	4.9	4.0	2.9	4.8
14	Peshawar	5.3	5.3	5.3	5.7	5.3	6.0	5.9	4.9	6.7	6.4	3.9	8.3	6.1	4.5	7.3
15	Bannu	8.1	9.2	7.3	7.4	7.8	7.1	6.7	6.9	6.6	6.2	5.2	6.9	6.7	6.7	6.8
16	Quetta	6.7	6.7	6.7	6.3	5.6	6.9	6.5	5.3	7.4	7.1	5.2	8.4	6.8	5.3	7.8
17	Khuzdar	9.1	10.7	7.9	8.5	10.0	7.4	7.9	10.0	6.4	7.9	9.6	6.7	8.1	10.0	6.8
Average		**6.9**	**6.0**	**7.5**	**6.7**	**5.5**	**7.5**	**6.6**	**5.4**	**7.5**	**6.8**	**4.9**	**8.2**	**6.7**	**5.3**	**7.8**
Minimum		***4.3***	***3.1***	***5.2***	***4.0***	***2.2***	***4.7***	***4.1***	***1.8***	***4.9***	***3.8***	***1.7***	***4.9***	***4.0***	***1.9***	***4.8***
Median		**6.7**	**5.3**	**7.3**	**6.3**	**5.2**	**7.2**	**6.5**	**4.9**	**7.3**	**6.4**	**4.3**	**8.4**	**6.4**	**4.8**	**7.8**
Maximum		***10.9***	***10.7***	***11.6***	***10.9***	***10.5***	***11.3***	***11.0***	***10.8***	***11.1***	***10.9***	***11.1***	***11.0***	***10.9***	***11.0***	***10.9***

Table A6 : Income Group-wise Inflation (YoY)

	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06
Up to Rs. 3000									
General	8.7	8.2	7.9	7.4	7.0	8.4	8.4	8.2	6.9
Food	9.5	8.4	7.8	6.3	5.6	8.5	8.5	8.2	6.2
Non-food	8.1	8.0	8.0	8.2	8.0	8.3	8.4	8.1	7.4
Rs. 3001-5000									
General	8.6	8.0	7.8	7.2	6.8	8.2	8.5	8.0	6.7
Food	9.3	8.0	7.4	5.9	5.2	8.2	8.3	7.8	5.7
Non-food	8.1	8.0	8.0	8.2	7.9	8.2	8.6	8.1	7.4
Rs. 5000-12000									
General	8.7	8.0	7.9	7.6	7.2	8.2	8.5	7.9	6.7
Food	9.5	7.8	7.5	6.2	5.6	8.1	8.2	7.6	5.5
Non-food	8.2	8.1	8.3	8.6	8.3	8.2	8.8	8.1	7.6
Above Rs. 12000									
General	9.3	8.8	9.3	9.2	8.9	8.9	9.0	8.2	7.1
Food	10.2	7.8	7.6	6.9	6.5	8.1	8.1	7.2	5.1
Non-food	8.7	9.6	10.4	10.8	10.6	9.5	9.6	8.8	8.5
All income groups									
General	9.0	8.4	8.5	8.3	7.9	8.5	8.8	8.0	6.9
Food	9.7	7.8	7.5	6.4	5.8	8.1	8.2	7.5	5.4
Non-food	8.5	8.8	9.3	9.6	9.4	8.8	9.2	8.4	8.0

Table A7: Distribution of Wholesale Price Changes (YoY), March 2006

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

Table A8: SPI Item-wise Price Movements

S.No	Items	Unit	Price as in Mar-2005	Percentage change in Mar-06 over		
				Jun-05	Mar-05	Feb-06
1	Wheat	Kg.	11.9	4.8	-2.1	-0.8
2	Wheat flour avg.qlty.	Kg.	13.3	2.1	-2.6	0.3
3	Rice basmati. broken	Kg.	20.2	-1.7	-1.6	0.2
4	Rice irri-6	Kg.	16.0	-0.6	1.5	0.3
5	Masoor pulse washed	Kg.	44.0	-4.2	-7.1	-2.6
6	Moong pulse washed	Kg.	49.2	26.8	47.8	4.2
7	Mash pulse washed	Kg.	54.2	31.2	35.7	3.9
8	Grams washed	Kg.	31.5	13.5	-5.9	4.0
9	Beef	Kg.	110.2	9.0	14.7	3.4
10	Mutton	Kg.	208.1	8.2	10.8	3.8
11	Egg hen (farm)	Doz.	23.9	-25.4	-26.3	-16.8
12	Bread plain m.s.	Each	14.4	4.3	5.0	0.6
13	Sugar	Kg.	35.6	34.6	35.2	0.1
14	Gur	Kg.	34.8	14.1	36.4	0.3
15	Milk fresh	Litr	24.0	3.9	12.2	1.6
16	Milk powdered NIDO	400g	108.4	2.5	5.0	0.6
17	Curd	Kg.	28.4	3.0	10.5	1.4
18	Vegetable ghee tin	2.5k	203.6	-0.2	-0.2	0.1
19	Vegetable ghee loose	Kg.	59.2	0.7	0.1	0.1
20	Mustard oil	Kg.	67.1	2.3	1.8	-0.1
21	Cooking oil	2.5l	204.3	-0.3	-0.3	0.0
22	Potatoes	Kg.	17.5	-2.0	48.8	12.3
23	Onions	Kg.	10.7	-9.0	-37.6	-1.5
24	Tomatoes	Kg.	27.4	46.2	0.2	14.6
25	Bananas	Doz.	27.4	-15.4	7.8	2.1
26	Salt powdered	Kg.	4.0	9.3	12.6	2.3
27	Red chilies (powd)	Kg.	68.3	-8.1	-9.3	-0.7
28	Garlic	Kg.	58.5	9.4	37.9	-2.1
29	Tea packet	250g	61.9	-0.1	-0.2	0.0
30	Tea (prepared)	Cup	6.0	10.3	17.0	2.4
31	Cooked beef plate	Each	26.0	3.3	6.1	0.8
32	Cooked dal plate	Each	15.7	4.1	5.4	1.4

Continued…

S.No	Items	Unit	Price as in Mar-2005	percentage change in Mar-06 over		
				Jun-05	Mar-05	Feb-06
33	Cigarettes k-2	10's	7.1	-0.7	3.1	0.0
34	Coarse latha	Mtr.	34.5	3.4	4.4	0.1
35	Lawn (avg.+s.qlty)	Mtr.	74.5	-2.0	4.0	0.3
36	Voil printed	Mtr.	36.0	-2.2	1.4	0.5
37	Shirting	Mtr.	62.8	2.6	3.9	0.5
38	Sandal gents Bata	Pair	399.0	-4.8	-20.0	0.0
39	Sandal ladies Bata	Pair	299.0	3.5	20.1	0.0
40	Chappal sponge. Bata	Pair	89.0	0.0	0.0	0.0
41	Kerosene	Litr	36.5	16.5	16.6	0.0
42	Firewood	40kg	177.8	22.1	24.5	1.6
43	Elec. Bulb 60-watt	Each	11.4	-1.8	-1.8	-0.1
44	Match box	Each	0.6	5.1	19.2	0.0
45	Washing soap	Cake	7.8	3.0	4.7	0.0
46	Bath soap Lifebuoy	Cake	13.9	-0.1	-0.4	0.0
47	Chicken (farm)	Kg.	50.9	-29.8	-13.3	-14.4
48	Gas chrg. All clb. comb	D.mmbt	93.1	9.5	9.5	0.0
49	L.p.g .(cylender 11kg.)	Each	474.1	39.4	0.0	-17.0
50	Elec. chrg. all slabs comb	Bd. Unit	2.4	0.0	0.0	0.0
51	Petrol	Litr	56.4	23.5	25.3	0.0
52	Diesel	Litr	37.3	27.8	29.3	0.0
53	Telephone local	Call	2.3	0.0	0.0	0.0
Max:				**46.2**	**48.8**	**14.6**
Median				**3.0**	**4.0**	**0.1**
Min:				**-29.8**	**-37.6**	**-17.0**

Figure A1: Frequency Distribution of Price Changes of CPI Items

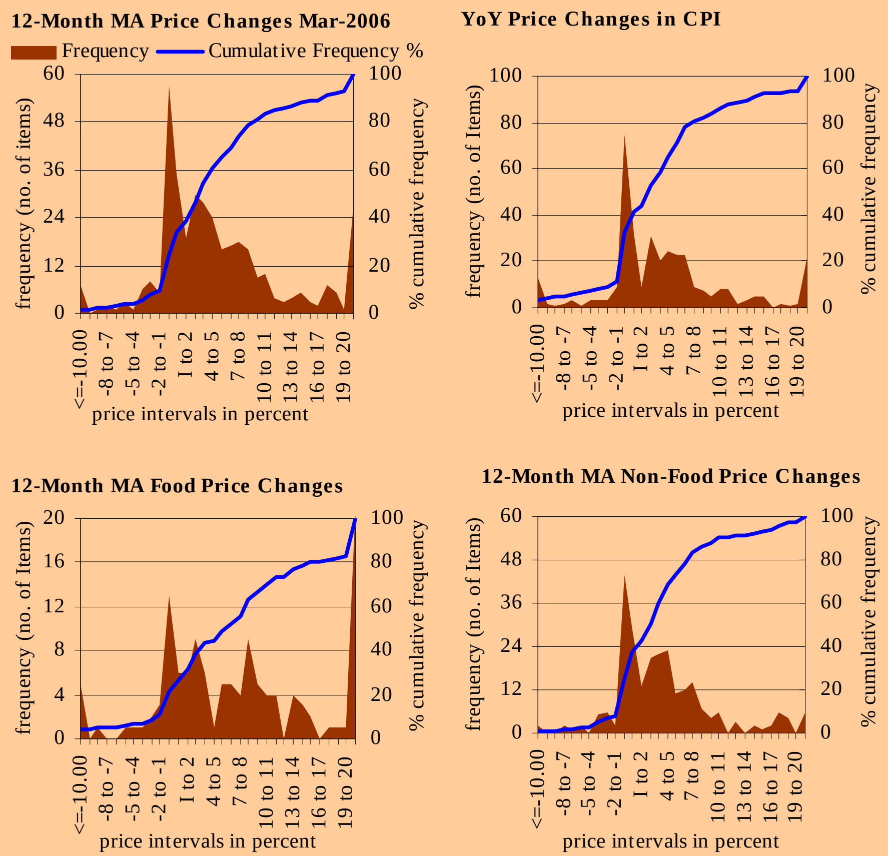
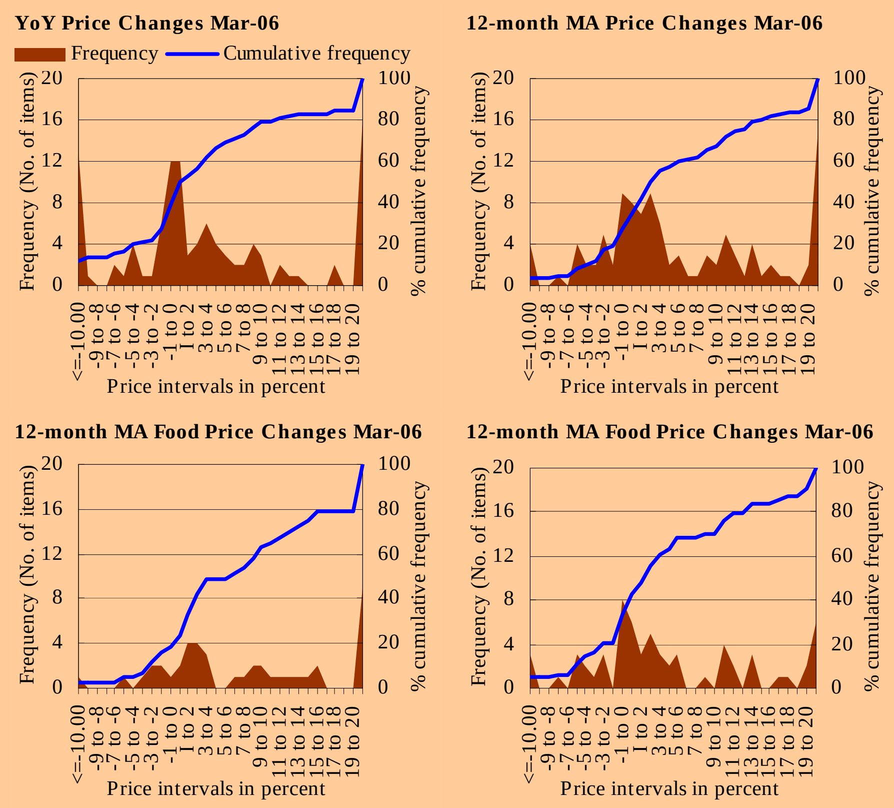


Figure A2: Frequency Distribution of Price Changes of WPI Items



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, list of which is given in Table A3.

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:

$$\pi_t = (\frac{I_t}{I_{t-12}} - 1) \times 100$$

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:

$$\overline{\pi} = \left(\frac{\sum_{i=0}^{t-v} I_{t-i}}{\sum_{i=0}^{t-12-v} I_{t-12-i}} - 1 \right) \times 100$$

where v is the serial number of the month of July of current fiscal year in a given time series.

6. 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:

$$\tilde{\pi} = \left(\frac{\sum_{i=0}^{11} I_{t-i}}{\sum_{i=0}^{11} I_{t-12-i}} - 1 \right) \times 100$$

7. 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 and energy items 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 changes in their prices 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 price changes of the rest of the items is core inflation.