

Inflation Monitor

April 2006



State Bank of Pakistan
Economic Policy and Research Departments

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Contents

1.	Overview	1
2.	Consumer Price Inflation	4
	2.1 Food Inflation	5
	2.2 Non-food Inflation	6
	2.3 Major Contributions	9
	2.4 Regional Incidence of Inflation	9
	2.5 Socio-economic Incidence of Inflation	10
3.	Wholesale Price Inflation	11
4.	Global Commodity Prices	16
5.	Sensitive Price Indicator	20
6.	Wage Inflation	21
<hr/> Annexure A:		25
	Table A1: CPI Inflation (YoY) by Groups	
	Table A2: Distribution of Price Changes of CPI Basket, April 2006 (YoY)	
	Table A3: Distribution of Price Changes – Selected CPI Items, April 2006	
	Table A4: Top Ten CPI Items (Ranked by inflation contribution)	
	Table A5: City-wise Inflation (YoY) by Income Groups, April 2006	
	Table A6: Income Group-wise Inflation (YoY)	
	Table A7: Distribution of Wholesale Price Changes (YoY), April 2006	
	Table A8: SPI Item-wise Price Movements	
	Figure A1: Frequency Distribution of Price Changes of CPI Items	
	Figure A2: Frequency Distribution of Price Changes of WPI Items	
Annexure B: Technical Notes		35

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1 Overview

Although consumer price index (CPI) increased significantly during April 2006 when compared with the previous couple of months,¹ annualized inflation measured as year-on-year percent change in CPI declined sharply to 6.2 percent during the month – at its lowest since May 2004. Such a decline in inflation amidst recent increase in oil prices and high inflation in prices of commodities like sugar, milk, and cement² may primarily be attributed to base effect as inflation during April 2005 was the highest in the past five years. A similar trend has been witnessed in other price indices also, viz. wholesale price index (WPI) and sensitive price indicator (SPI): the WPI inflation declined to 8.1 percent during the month, after being peaked-off at 11.9 percent in September 2005, and inflation in sensitive price indicator was 6.8 percent in April 2006, which was significantly lower than 13.4 percent inflation recorded during the corresponding month last year (see **Table 1.1**).

Table 1.1: Inflation (YoY)

	CPI			WPI			SPI	Core Inflation	
	General	Food	Non-Food	General	Food	Non-Food		NFNE*	20%Trimming
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
Apr-06	6.2	3.6	8.0	8.1	4.5	10.8	6.8	6.4	6.0

* NFNE is Non-food non-energy inflation; see **Annexure B** for more on measures of core inflation.

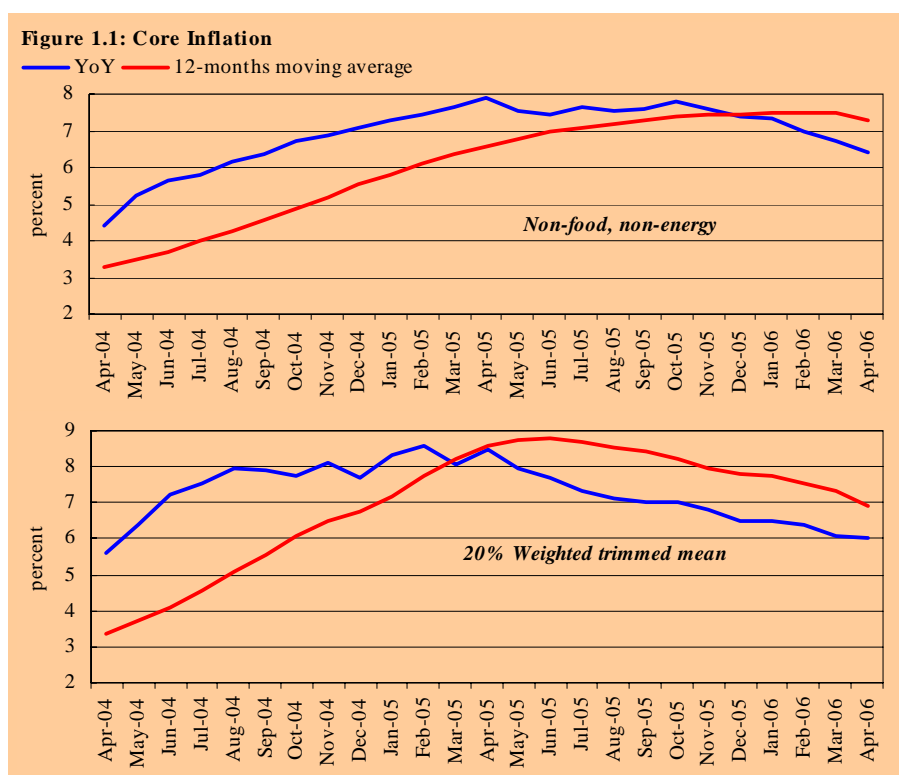
The food group was the major contributor to the recent decline in overall inflation which showed sharp deceleration both in CPI and WPI during April 2006 due to the strong base of last year as well as YoY decline in the prices of a number of

¹ During April 2006, CPI inflation on monthly basis (i.e. April 06 over March 06) was 1 percent as compared to monthly inflation of 0.3 and 0.2 percent during February and March 2006 respectively (see **Table 1.2**). It was also significantly higher than average monthly inflation of 0.6 percent during the first 10 months of the current fiscal year.

² Cement is not an item of consumer price index; however, movements in its prices have a bearing on it through house rent index.

important food items. Inflation in non-food component of both CPI and WPI, on the other hand, showed firmness due to recent increase in fuel prices and a check on earlier decelerating HRI inflation on the back of high prices of cement and other building material.

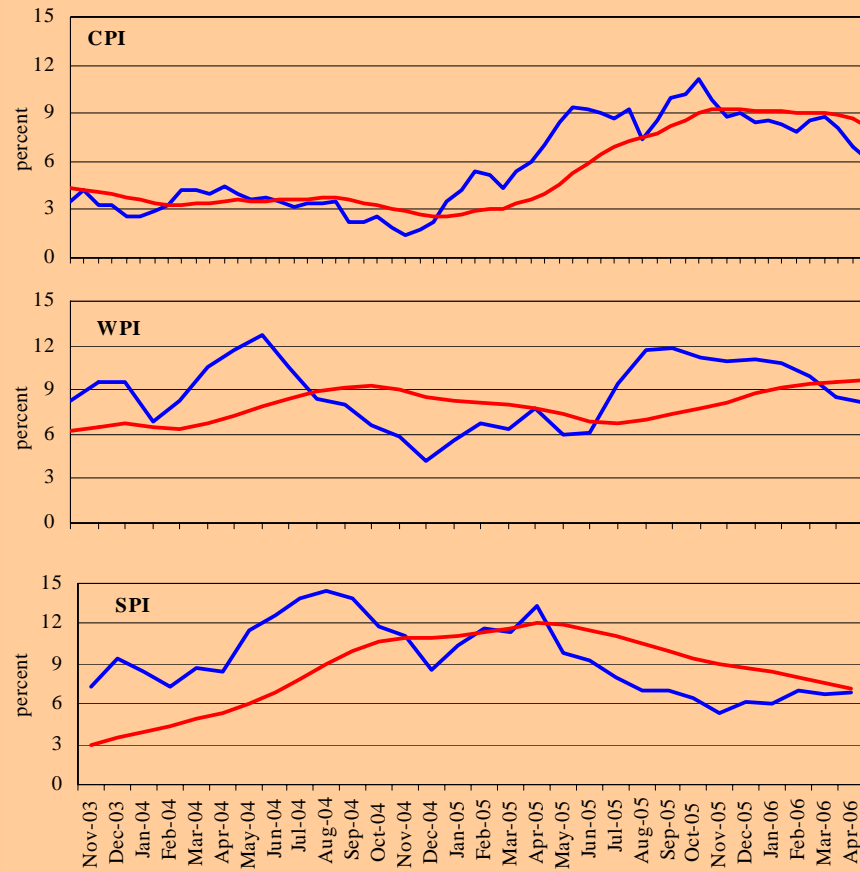
Core inflation, measured both by excluding food and energy components from CPI basket and by trimming 20 percent of CPI items showing extreme changes, also continued to decline during the month (see **Figure 1.1**).



The long-run trends of price indices, measured as 12-month moving average, indicate that the inflationary pressures still exist in the economy. As long run inflation, although declining, is still significantly higher than 8 percent in case of CPI and close to 10 percent in case of WPI (see **Figure 1.2**). A notable decline in long-run trend has, however, been observed in SPI which is a limited basket index with majority of food items.

Figure 1.2: Movements in Price Indices

— Year-on-Year — 12-month moving average

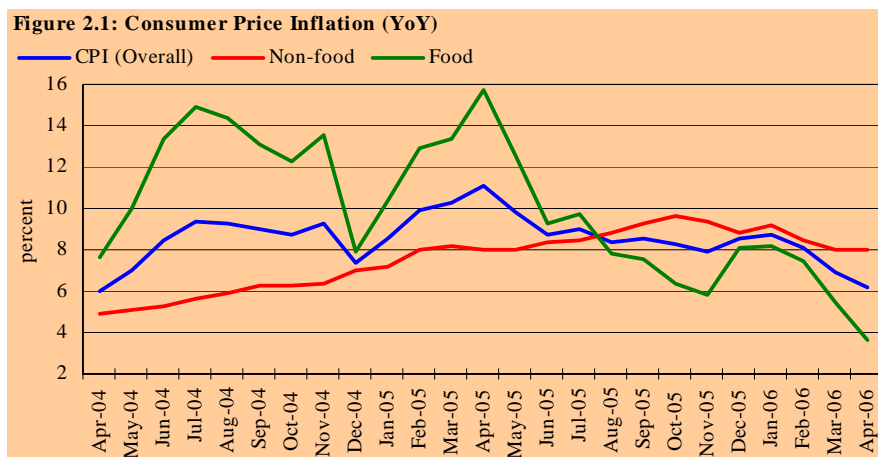


The other dimensions of inflation including period average inflation and monthly inflation, which are largely free from strong base effect, also finger to high inflation and thus the existence of upward pressures on price levels (see **Table 1.2**).

Table 1.2: Different Dimensions of Inflation (percent)				
	Apr-05	Mar-06	Apr-06	5-year average
Year-on-year (April 06 over April 05)				
Overall CPI	11.1	6.9	6.2	5.9
Food group	15.7	5.4	3.6	6.5
Non-food group	8.0	8.0	8.0	5.6
Period average (Jul-Apr FY06 over Jul-Apr FY05)				
Overall CPI	9.3	8.2	8.0	5.6
Food group	12.8	7.4	7.0	6.0
Non-food group	6.9	8.9	8.8	5.3
12-month moving average (May 05-Apr 06 over May 04-Apr 05)				
Overall CPI	9.0	8.6	8.2	5.5
Food group	12.6	8.6	7.6	6.0
Non-food group	6.6	8.7	8.7	5.3
Monthly (April 06 over March 06)				
Overall CPI	1.7	0.2	1.0	0.9
Food group	3.2	0.2	1.5	1.5
Non-food group	0.7	0.3	0.7	0.4

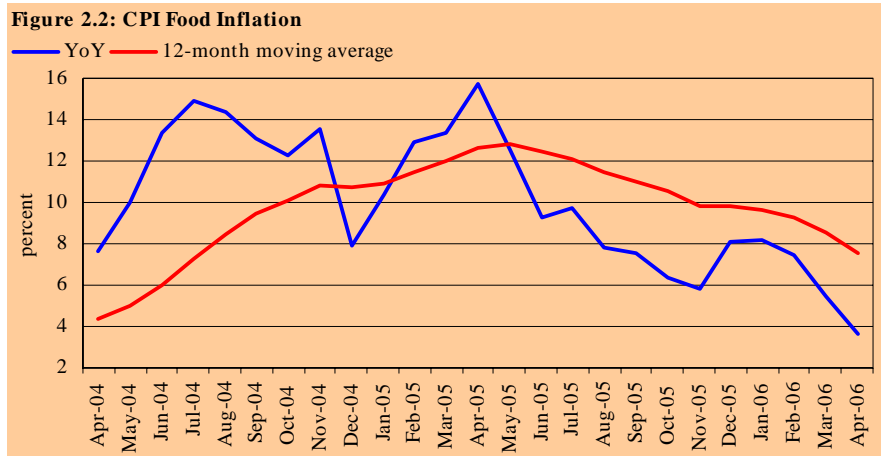
2 Consumer Price Inflation

Consumer price inflation declined sharply during April 2006, and was recorded at 6.2 percent (YoY) as compared to 11.1 percent in the same month last year. While non-food inflation showed stiffness at its previous month's level of 8 percent, food inflation played a key role in bringing down the overall inflation during the month (see **Figure 2.1**).



2.1 Food Inflation

Despite increase in the prices of milk, meat, sugar, potato, and that of some pulses and cold drinks, inflation in the overall food group declined sharply to 3.6 percent (YoY) in April 2006 as against 15.7 percent inflation recorded in April 2005; food inflation in the month under review was the lowest in the past two years (see **Figure 2.2**).



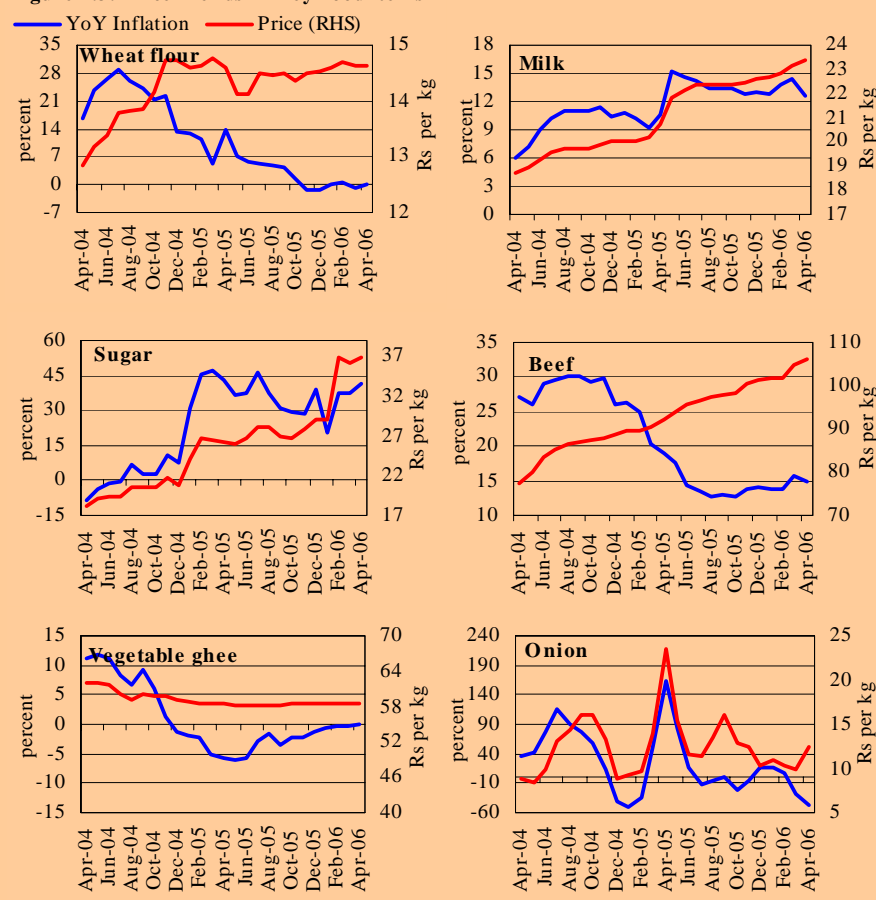
Price movements of individual items in the CPI food group reflect that YoY decline in prices of wheat and its products, pulses masoor and gram, vegetable ghee, cooking oil, poultry, and some vegetables including onion, green chillies and cauliflower, along with a subdued inflation in number of other items³ has offset largely the impact of high prices in some key food items as mentioned above. Besides this, the role of base effect was the most significant during April 2006 in bringing down the CPI food inflation to the 3.6 percent YoY level. During April 2005, prices of a large number of food items including wheat and wheat products, rice, pulses, chicken, eggs, vegetables, and fruits along with the prices of sugar,⁴ milk and meat increased significantly: that price hike increased the base for YoY inflation during the month of April 2006.

In terms of percent contribution to food inflation, milk remained the highest contributor during April 2006 as it was during the previous month; sugar was the second largest contributor to food inflation followed by beef.

³ See **Table A2** in Annexure A for distribution of CPI items in terms of their YoY inflation.

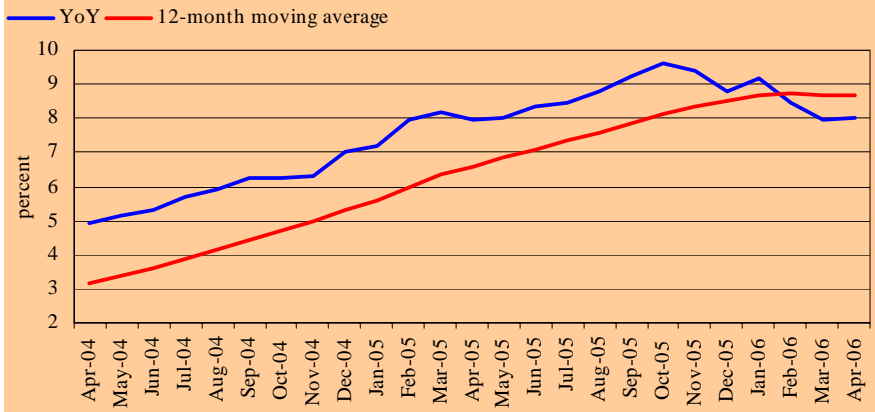
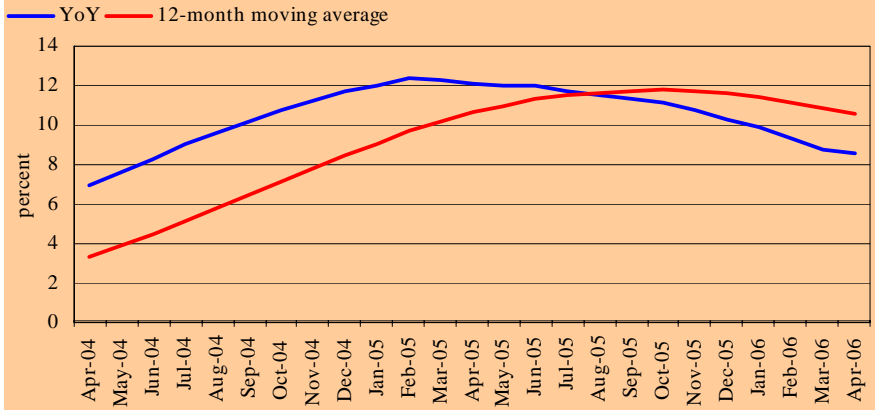
⁴ YoY increase in sugar price in April 2005 was even higher than that in April 2006.

Figure 2.3: Price Trends in Key Food Items



2.2 Non-food Inflation

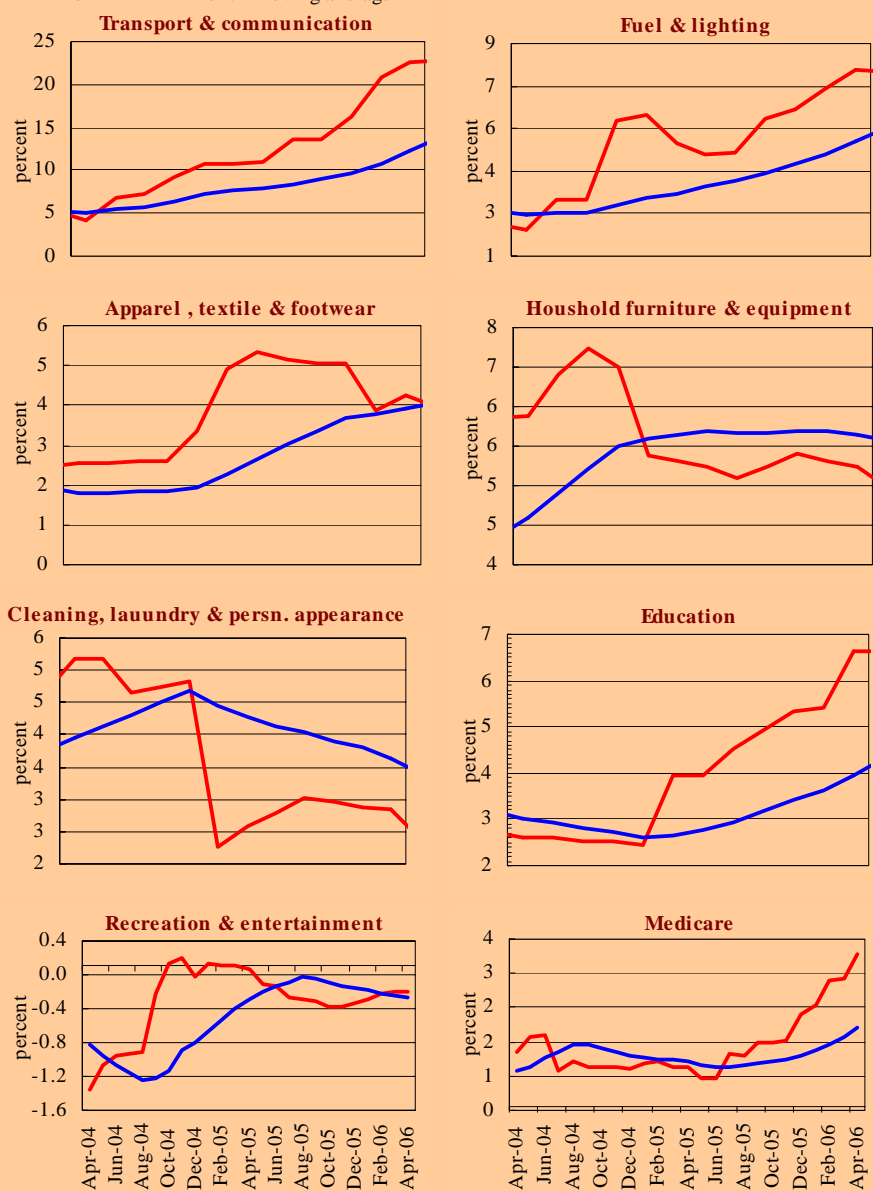
After persistent deceleration, CPI *non-food* inflation has shown stability during April 2006 with a rate of 8 percent YoY – the same rate as was during the previous month. This firmness in non-food inflation is the result of a rise in prices of liquid fuels and supported by reduction in the speed of decline in the HRI inflation during April 2006 (see **Figure 2.4** and **Figure 2.5**).

Figure 2.4: CPI Non-food Inflation**Figure 2.5: House Rent Inflation**

Moreover, *fuel & lighting* sub-group inflation also increased significantly during April 2006, on the back of high YoY inflation in prices of kerosene oil, firewood and gas charges. Inflation in *transport & communication* continued to remain in double digits due to high oil prices, though stability in bus, train and air fares led to some deceleration during the recent months. Other sub-groups of the CPI *non-food* group witnessed mixed trends during the month with reduction in inflation of *apparel, textile & footwear* and *education* indices and rise in inflation of others as compared with the previous month (see **Figure 2.6**).

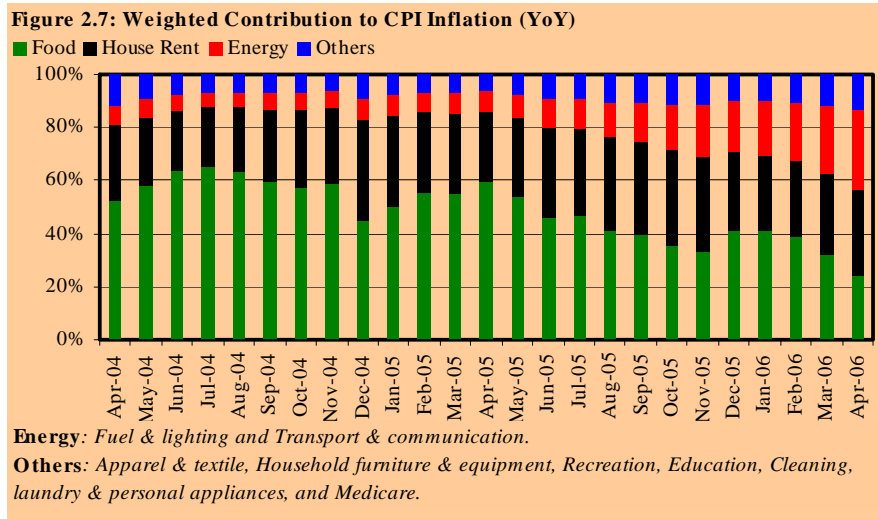
Figure 2.6: CPI Non-food Sub-indices' Inflation

— YoY — 12-month moving average



2.3 Major Contributions

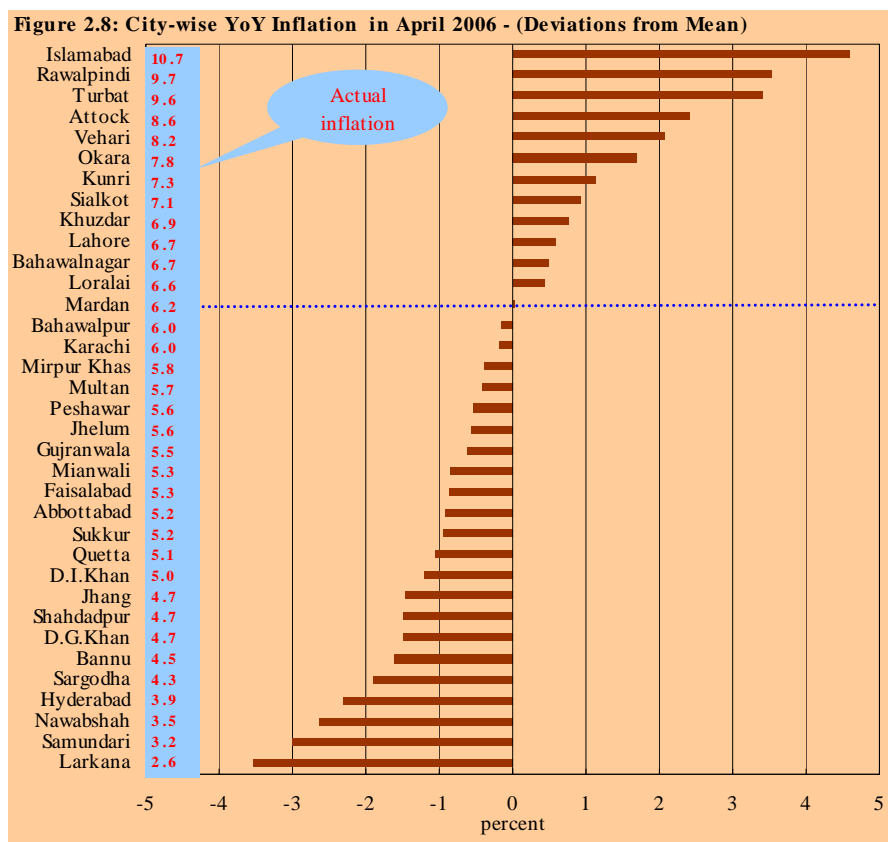
Contribution of food group to the overall inflation declined to 24 percent during April 2006, which was considerably less than its contribution of 57 percent during the same month last year. On the other hand, the contribution of non-food inflation increased over the same period with HRI as the largest contributor followed by energy sector (see **Figure 2.7**).



During April 2006, inflation in the prices of ten out of the 374 items in the CPI basket, contributed 84 percent to the overall inflation. Like in the previous months, except HRI, all these items belong to either *food* or *energy* groups of CPI. Within the *food* group, milk and sugar (with a combined weight of 8 percent in the CPI basket) contributed 26.4 percent to the overall CPI inflation. The heavy weight HRI contributed 32.8 percent during April 2006 (see **Table A4** in Annexure A).

2.4 Regional Incidence of Inflation

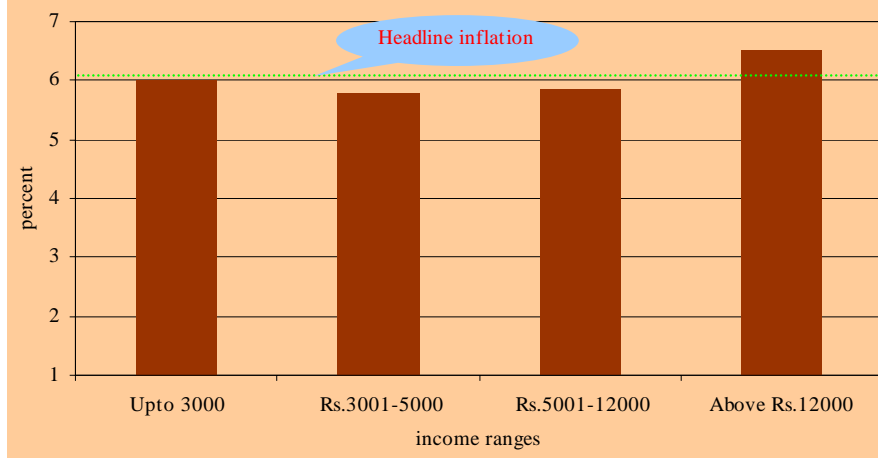
As the inflationary pressures further weakened during April 2006, most of the cities in the sample recorded lower-than-mean inflation. During April only 12 cities out of a total of 35 recorded above the average inflation. As usual, the federal capital Islamabad witnessed the highest inflation of over 10 percent YoY; all the provincial capitals, except Lahore, recorded below-the-average inflation during April 2006 (see **Figure 2.8**).



2.5 Socio-economic Incidence of Inflation

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

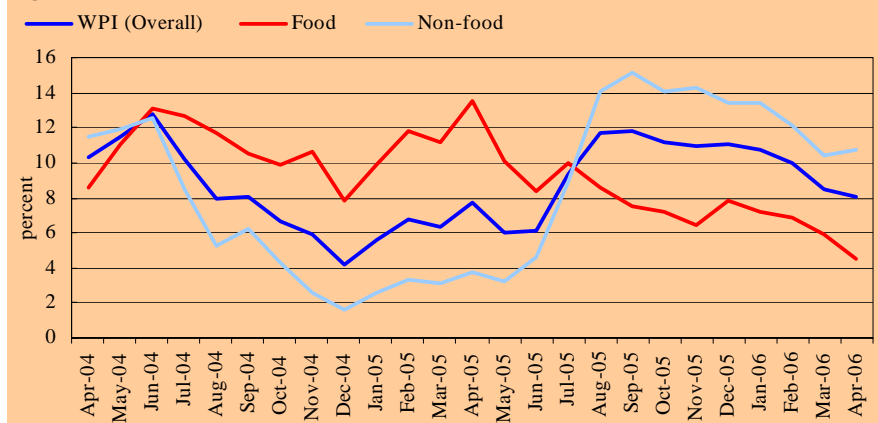
Figure 2.9: Income Group-wise Inflation in April 2006 (YoY)



3 Wholesale Price Inflation

While wholesale price inflation remained in the neighborhood of 11 percent during the first half of the current fiscal year, it has been on a decline since then dropping to 8.1 percent in April 2006. The deriving factor behind the fall in overall WPI inflation is, like CPI inflation, the food group which has declined from 10 percent in the beginning of the current fiscal year to less than 5 percent in the month under review (see **Figure 3.1**). The inflation in wholesale prices of non-food group was slightly up by 0.4 percentage points in April 2006 from the previous month primarily due to a reversal in the trend of *building material* index.

Figure 3.1: Wholesale Price Inflation

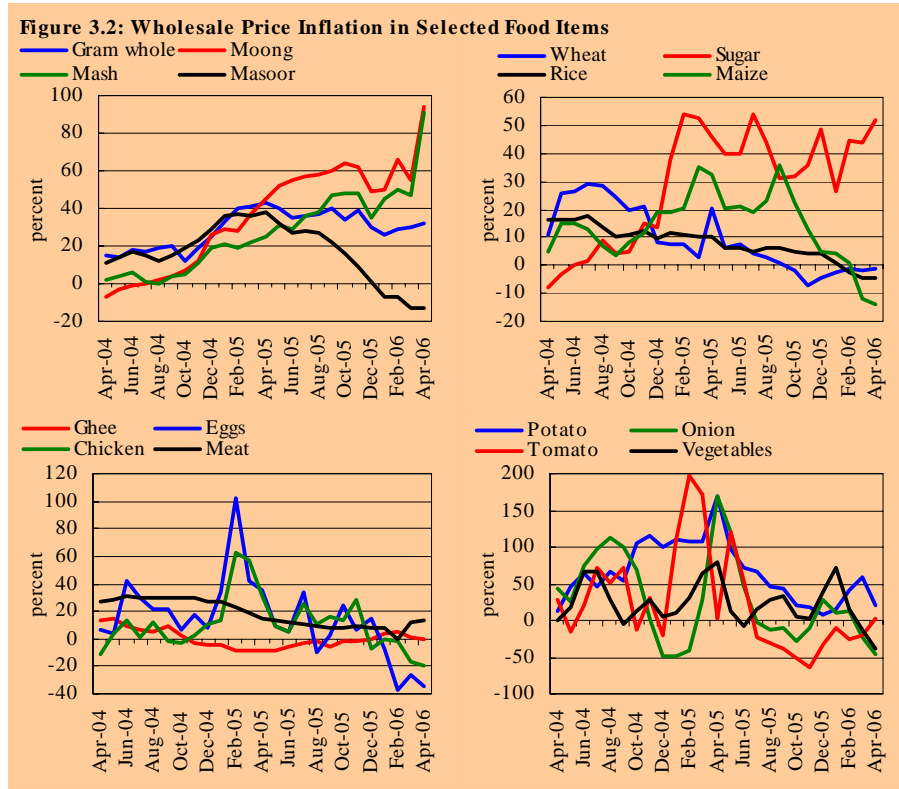


Nevertheless, the long-run trend in wholesale price inflation is still rising, though with a declining rate due to an element of persistence of earlier high inflation. Similarly the period average inflation was also very high, above 10 percent, during Jul-Apr FY06 as compared with 6.9 percent during the corresponding period last year (see **Table 3.1**).

Table 3.1: WPI Inflation (Period average)						
WPI and its components	FY03	FY04	FY05	July-April		
				FY04	FY05	FY06
Food	3.5	7.0	10.7	6.0	11.0	7.2
Raw materials	14.4	17.0	-18.1	17.6	-17.7	9.6
Fuel, lighting & lubricants	12.5	2.8	15.8	1.0	14.6	28.1
Manufactures	1.7	7.9	1.1	7.7	1.6	2.7
Building materials	1.7	22.9	13.7	21.9	15.6	-0.3
Overall index	5.6	7.9	6.8	7.1	6.9	10.3
<i>Overall excl. food</i>	<i>7.3</i>	<i>8.7</i>	<i>3.6</i>	<i>7.8</i>	<i>4.1</i>	<i>12.6</i>
<i>Overall excl. fuel</i>	<i>3.9</i>	<i>9.2</i>	<i>4.5</i>	<i>8.6</i>	<i>5.0</i>	<i>5.5</i>
<i>Overall excl. food and fuel</i>	<i>4.3</i>	<i>11.7</i>	<i>-1.8</i>	<i>11.6</i>	<i>-1.2</i>	<i>3.7</i>

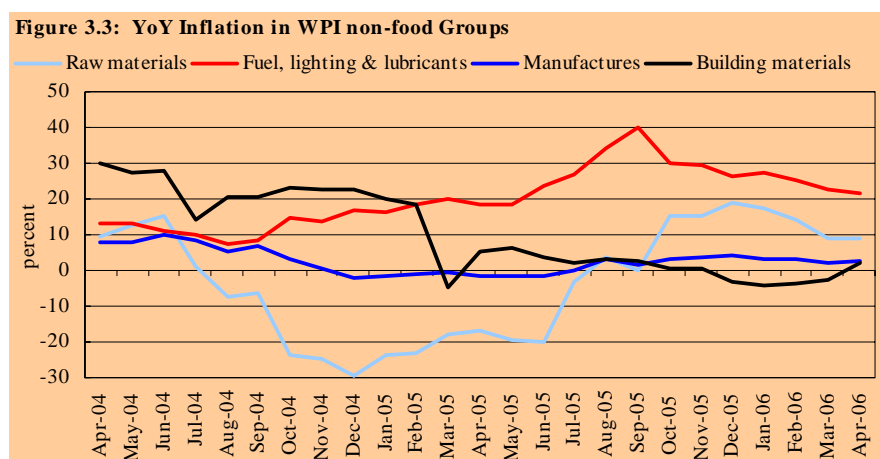
The year-on-year inflation in food index fell to 4.5 percent in April 2006 from 13.6 percent in the same month last year, which was the lowest in the past thirty months. Persistent decline in food inflation was largely contributed by fall in wholesale prices of wheat, rice, maize, onion, eggs, chicken, vegetables, fresh fruits, and masoor, which have quelled the impact of higher sugar, milk, meat and pulses prices to a large extent.

Decline in the prices of rice and maize owes largely to bumper crops this year, while improved wheat stocks through imports helped in lowering wheat prices. Sharp decline in the prices of eggs and chicken was largely because of bird flu scare that led to reduced demand. The impact of substitution of chicken with meat was reflected in rising prices of the latter. Decline in onion prices also reflects higher production as supplies of new crop from Sindh and Balochistan has already made its way into the market and that from Punjab is also due in Apr-Jun period (see **Figure 3.2**). Moreover, the strong base effect has also played its role in suppressing the YoY food inflation during April 2006.



Among non-food groups of WPI, the annual rate of increase in *fuel, lighting & lubricants* is still above 20 percent due to high inflation in oil and gas prices. However, due to YoY deflation in coke and declining trend in furnace oil inflation, the inflation in this group has declined from 40 percent in September 2005 to 21.4 percent in April 2006 (see **Figure 3.3**).

The other three non-food groups of WPI witnessed increase in inflation during April 2006 compared to a declining trend observed since January 2006. Annual growth in *raw material* group rose marginally to 9.0 percent during April 2006 from 8.9 percent in the previous month, as wool prices rose sharply by 20.4 percent and pig iron moderately by 2.6 percent compared to the declining trend recorded up to March 2006. Moreover, prices of cotton, sugarcane and tobacco also increased with high rate and contributed to rise in the inflation of this group.



A moderate increase in inflation of *manufactures* group to 2.9 percent in April 2006 from 2.1 percent in the last month was largely due to the increase in inflation of cotton yarn, dying material, pesticides, paper and footwear, while prices of other major manufactured items like fertilizer, tyres & tubes, cosmetics, etc., showed deceleration in annual growth for the last couple of months. Moreover, manufactured items like blended & nylon yarns and chemicals continued to show double-digit decline in prices.

The reversal in *building material* index from a decline for the last four months to an increase of 2.2 percent in April 2006 was primarily due to significant increase in the prices of cement and cables & wires that more than offset the impact of declining iron bars & sheets prices. The prices of bricks showed decline in growth reflecting slowdown in construction activities due to both seasonal reduction in labor availability in the wake of wheat harvest and inflated cement prices (see **Figure 3.4**).

Figure 3.5 shows the weighted contribution by different WPI groups to overall YoY wholesale price inflation. The contribution of food group continued to decline while that of fuel, lighting and lubricants group increased.

Figure 3.4: Wholesale Prices Inflation in Selected Non-food Items

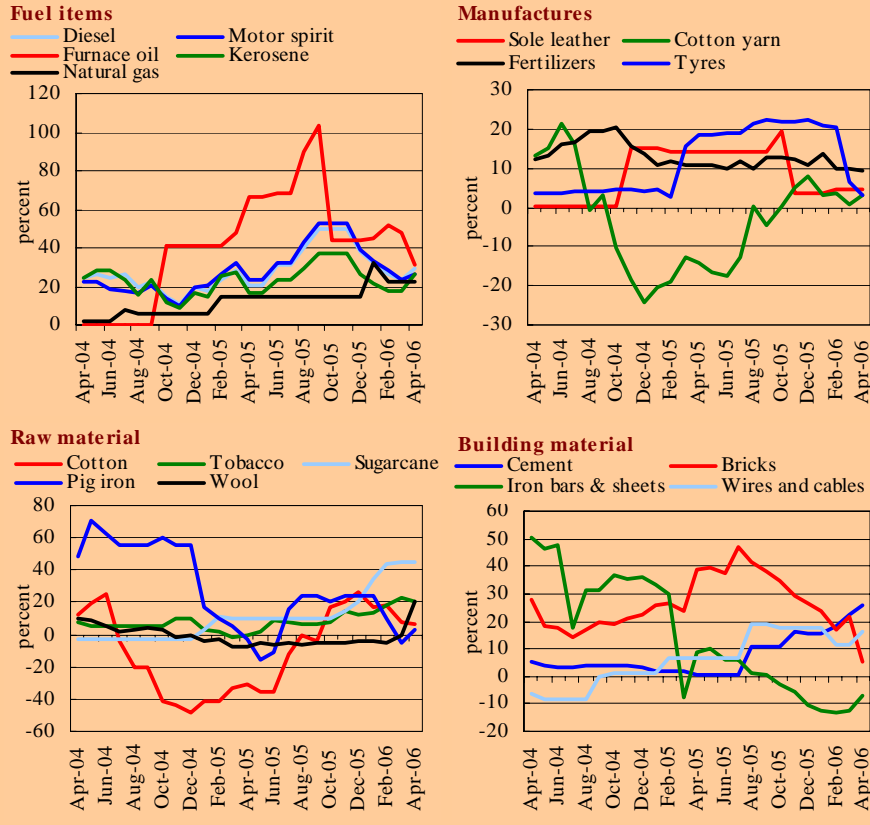
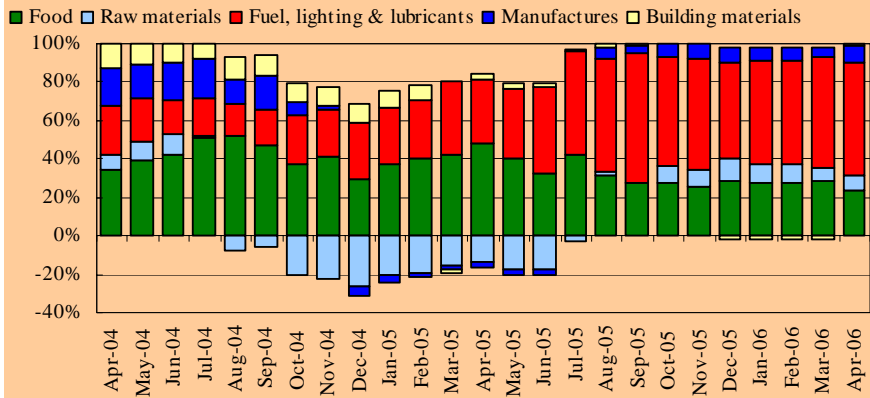
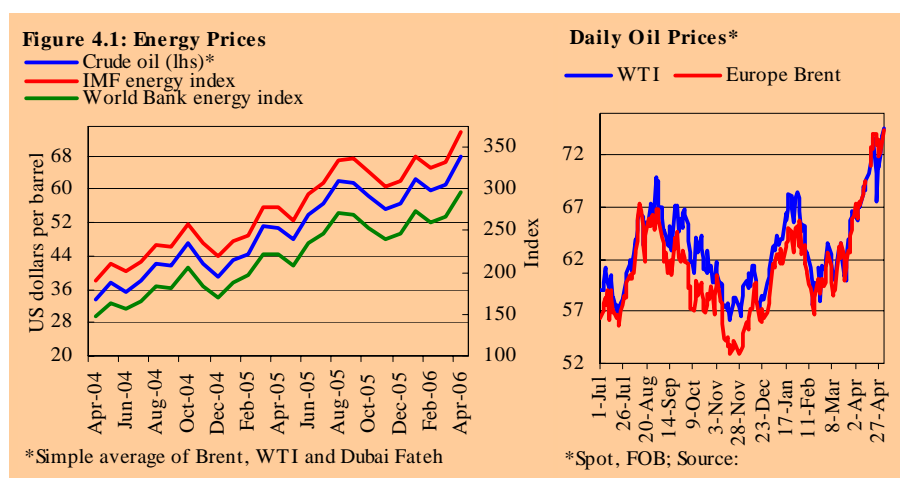


Figure 3.5: Weighted Contribution to WPI Inflation (YoY)



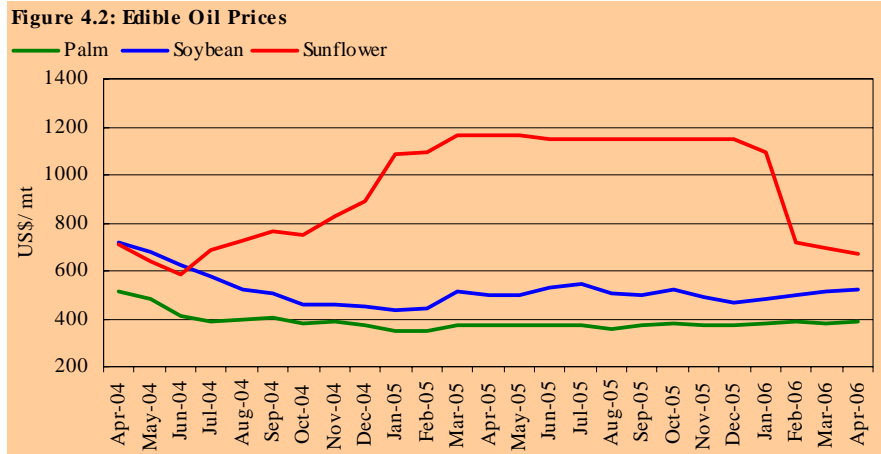
4 Global Commodity Prices

Oil prices in the international market kept on rising in recent months and touched the all time highest of US\$ 75 per barrel on May 2, 2006. The average (of UK Brent, WTI and UAE Fateh) crude oil price in April 2006 rose by 11.6 percent to US\$ 68.0 per barrel from the previous level of US\$ 60.9 per barrel in March 2006, showing a 34.3 percent YoY increase over the same month last year (see **Figure 4.1**). There is continued uncertainty on future oil supplies as Iran remains adamant to uranium enrichment and the western world pushes for UN sanctions. Moreover, security related disruption in oil supplies from Nigeria also remained a risk to oil prices.

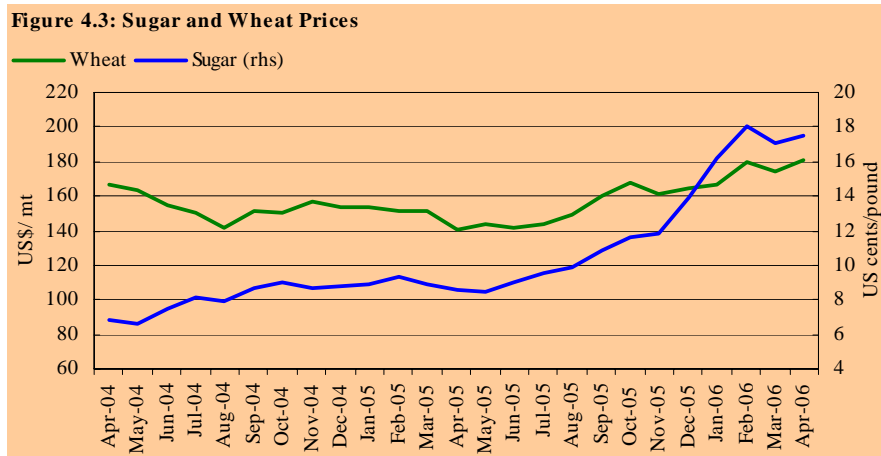


Palm and soybean prices also went up, though moderately. Higher demand for palm oil for non-food uses, i.e. fuel (bio-fuel/bio-diesel) due to rising crude oil prices is one of the major reasons pushing edible oil prices up. Moreover, production of edible oil is also expected to decline on account of projected lower production in US and Brazil. In case of sunflower, however, the prices are falling with the expected increase in world production by approximately 12 percent, which was earlier rising sharply during last year due to 3 percent decline in production (see **Figure 4.2**).⁵

⁵ See www.sunflowernsa.com for details.

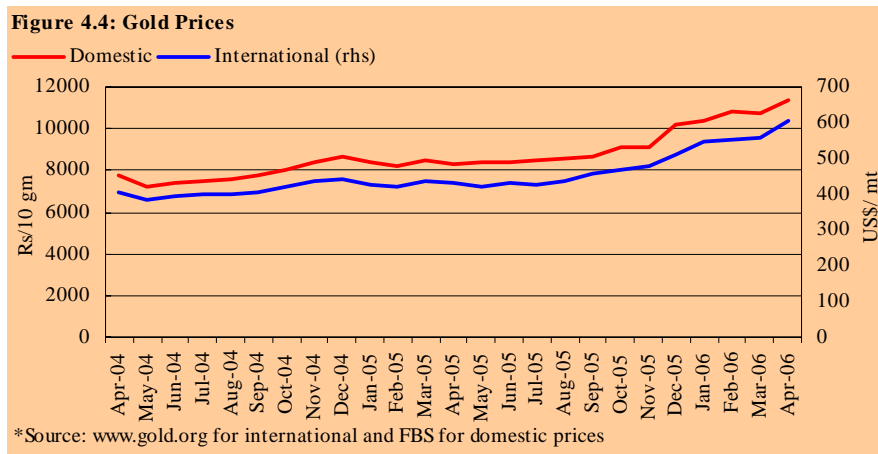


Wheat prices continued to show rising trend due to expected lower production caused by poor weather conditions in major producing countries, rising input and energy cost. Sugar price again rose in April 2006 after falling by 1 cent per pound in March. Lower world production and speculative holding coupled with investment by hedge funds continued to push sugar prices up in international market (see **Figure 4.3**).

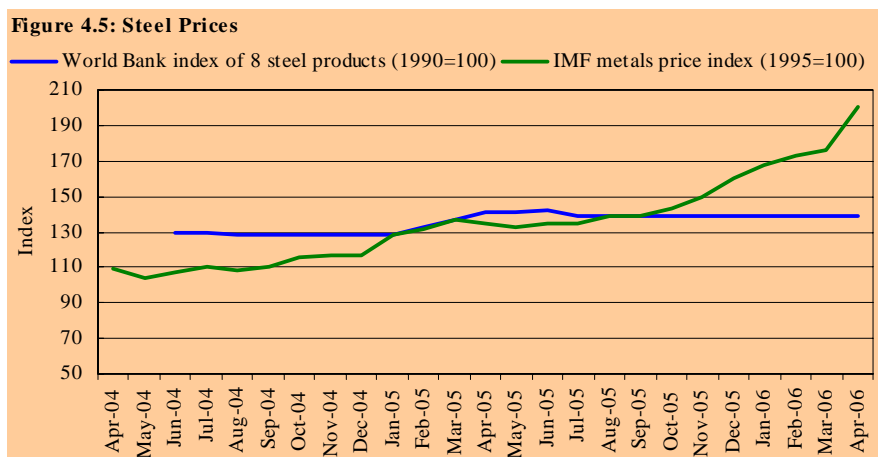


Gold prices continued to rise sharply without losing pace. During April 2006, the gold price rose by 41.0 percent to US\$ 605.3 per ounce. It kept on rising in May by even higher rates and crossed US\$ 700 per ounce. The recent surge in

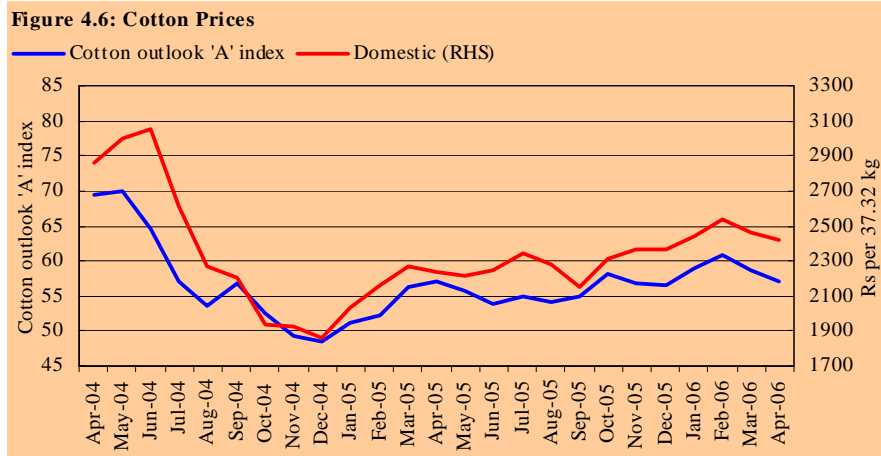
gold price has primarily been driven by rising demand from investors to hold precious metals as a hedge against global tensions, including those over US-Iran relations, high oil prices and weakening dollar. The investors expect dollar to weaken further with the end to monetary tightening by Federal Reserve in the near future. Some analysts are also speculating that China may increase its gold reserves to help government prevent risks (see **Figure 4.4**).



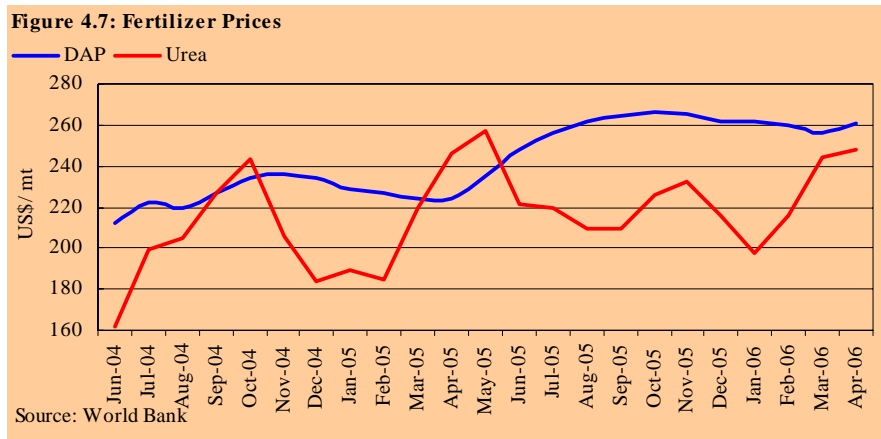
Although steel prices (as measured by the World Bank index of 8 steel products) continued to show stability in the international market, metal prices are on the rise. The IMF metal price index (includes copper, aluminum, iron ore, tin, nickel, zinc, lead, and uranium) rose by 49 percent YoY in April 2006 (see **Figure 4.5**).



Cotton prices eased in the international market during the last couple of months with YoY growth in Cotton 'A' Index falling to 8.4 percent from 19.0 percent in October 2005. The slowdown in cotton prices growth reflects forecast of slightly higher world output for 2005-06 compared to last year (see **Figure 4.6**). In case of Pakistan too, cotton production is expected to improve over last year unless the crop is affected by unexpected weather changes.

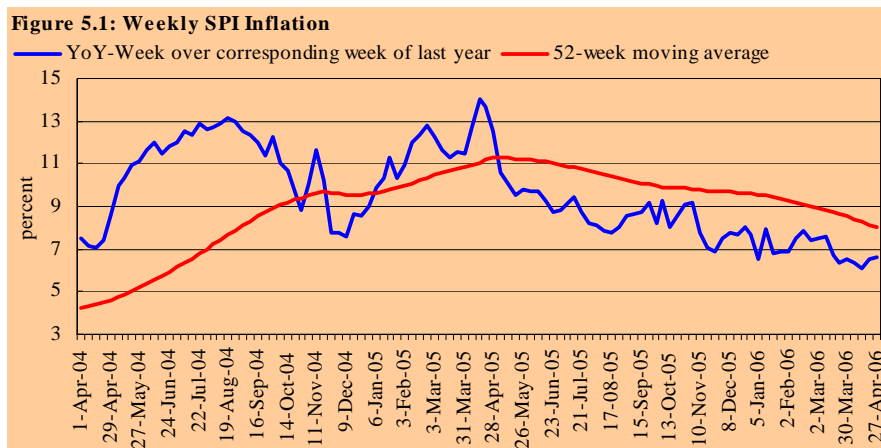


Fertilizer prices also rose during April reflecting the impact of higher energy cost and natural gas. Particularly, the price of a ton of urea rose sharply compared to DAP due to relatively higher use of natural gas as feedstock (see **Figure 4.7**).

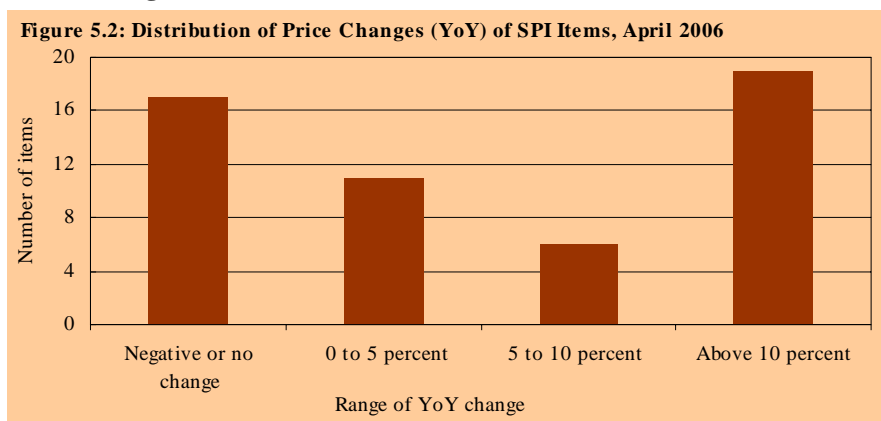


5 Sensitive Price Indicator

The impact of sharp deceleration recorded in the CPI food inflation was also witnessed in the SPI inflation which was 6.8 percent during April 2006 compared with 13.4 percent in April 2005 (see **Figure 5.1**). The slowdown in SPI inflation was mainly contributed by falling food prices (see **Table A8** in Annexure A for item-wise movements of commodities included in SPI).



The distribution of items in the SPI basket falling under different ranges of price changes remained somewhat same during April 2006, as it was in the last month. 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 month (see **Figure 5.2**).



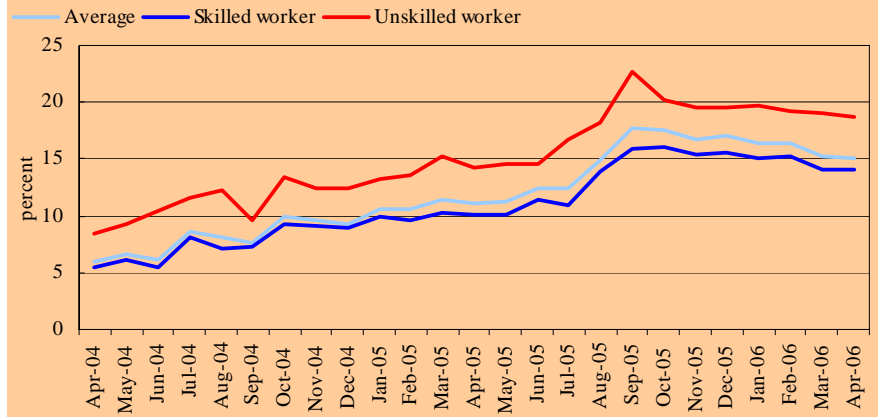
6 Wage Inflation

Wage inflation continued to maintain decelerating trend during April 2006 albeit wages in a number of cities including Lahore, Bahawalnagar, Vehari, Hyderabad, Sukkur and Abbotabad increased significantly during April 2006 due to likely shortages of labour in the wake of wheat harvest season. The YoY rate of change in the average wage of the five construction workers fell to 15.1 percent in April 2006, slightly down from 15.2 percent in the last month (see **Table 6.1**). While inflation in wages of skilled workers remained stable at the previous month's level, the same of unskilled workers declined during the month (see **Figure 6.1**).

Table 6.1: Wage Inflation

	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06
Overall	12.4	14.9	17.8	17.5	16.8	17.1	16.4	16.4	15.2	15.1
Carpenter	12.3	14.1	16.1	16.9	16.3	16.9	14.7	15.8	14.4	14.9
Mason	11.3	15.8	19.7	17.6	17.2	18.0	18.2	17.2	16.0	16.4
Labourer	16.7	18.3	22.6	20.1	19.5	19.5	19.6	19.3	19.0	18.6
Plumber	12.6	14.6	16.9	17.2	15.8	16.0	16.4	17.0	15.1	13.9
Electrician	7.8	10.8	10.8	12.1	12.0	11.0	10.4	10.4	10.3	10.8

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



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

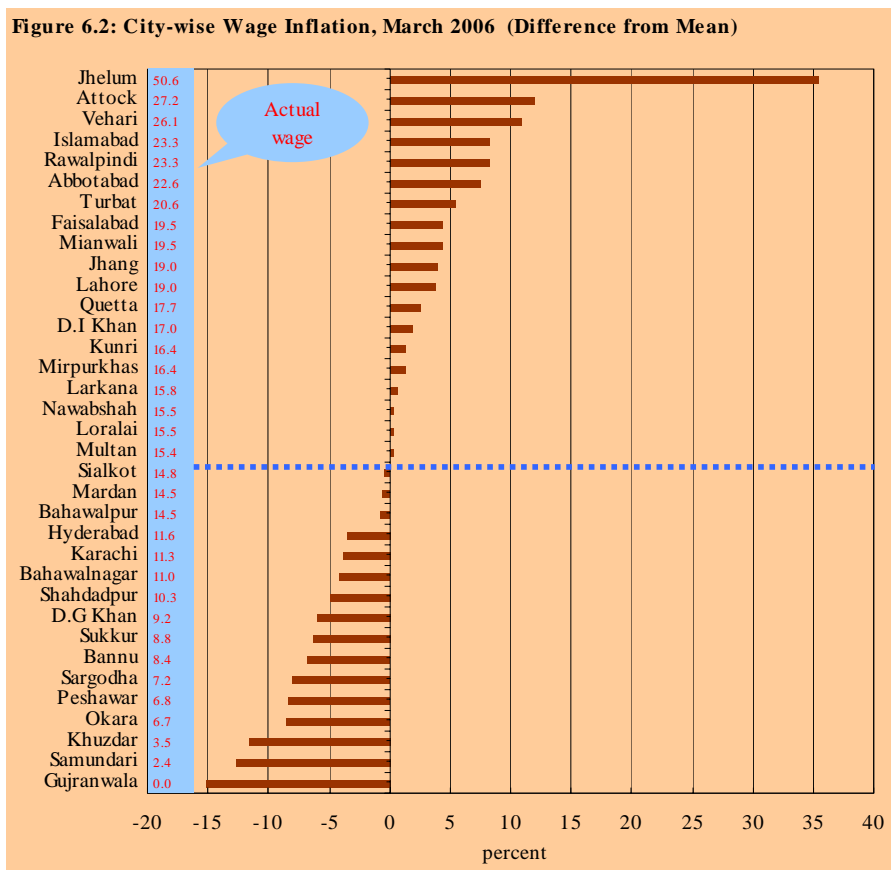


Table 6.2: Daily Labor Wages (Rs. per day)--Average in 35 Cities						
	Carpenter	Mason	Laborer	Plumber	Electrician	Average
Annual Averages						
FY03	218.0	225.4	107.7	219.8	216.4	197.4
FY04	224.5	237.4	114.5	225.0	221.9	204.6
FY05	245.8	261.4	129.5	245.5	240.3	224.5
FY06 (Jul-Apr)	280.6	302.2	152.7	280.8	264.2	255.4
Monthly averages						
Jan-06	248.5	263.3	130.4	245.8	242.8	223.9
Feb-06	248.2	265.6	130.9	245.7	242.8	224.8
Mar-06	250.5	269.2	132.5	250	244.3	227.6
Apr-06	253.3	269.8	134.4	255.4	247.7	230
May-06	256	273.1	136.5	256.8	247.7	232.4
Jun-06	258.1	275.2	138.5	258.6	248.8	234.4
Jul-06	264.2	280.9	142.5	264.6	252.1	239.7
Aug-06	269.9	284.1	145.8	270.2	256	244.1
Sep-06	275.8	293.6	149.3	276.6	257.7	250.1
Oct-06	280.8	302.1	152.2	280.4	263.8	255.4
Nov-06	281.5	304.2	152.9	281.3	265.5	256.5
Dec-06	283.8	308.6	154.7	282.5	266.8	258.8
Jan-06	284.9	311.2	156	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
Apr-06	290.9	313.9	159.4	291.0	274.3	264.9
Source: Federal Bureau of Statistics						

ANNEXURES

Annexure A**Table A1: CPI Inflation (YoY) by Groups**

	Weights	Apr-02	Apr-03	Apr-04	Apr-05	Apr-06
I. Food Group	40.3	4.4	1.0	7.6	15.7	3.6
II. Non-food Group	59.7	4.0	3.1	4.9	8.0	8.0
Apparel & textile	6.1	3.4	3.9	1.0	4.9	3.8
House rent	23.4	2.4	0.7	7.0	12.1	8.6
Fuel & lighting	7.3	11.5	4.9	3.1	5.0	10.7
Household furniture & equip.	3.3	3.5	3.4	4.8	5.6	4.9
Transport & comm..	7.3	2.9	5.4	6.1	10.8	13.4
Recreation, entertn.	0.8	5.4	0.8	-1.4	0.1	-0.2
Education	3.5	4.4	5.2	3.6	3.9	6.6
Cleaning & laundry	5.9	2.3	5.5	4.9	2.3	3.5
Medicines	2.1	2.9	2.2	1.4	1.0	3.7
Headline	100	4.2	2.2	6.0	11.1	6.2

Table A2: Distribution of Price Changes of CPI Basket, April 2006 (YoY)

Groups	Group Inflation	Total Number of Items	No. of Items in each Inflation Range			
			Decrease or no change	Subdued increase	Moderate increase	Double digit increase
			(0 % or less)	(0 to 5%)	(5 to 10%)	(over 10%)
I. Food Group	3.6	109	37	24	23	25
II. Non-food Group	8.0	250	78	92	47	33
Apparel & textile	3.8	42	4	24	11	3
House rent	8.6	1	0	0	1	0
Fuel & lighting	10.7	15	7	1	1	6
Household furn. & equip.	4.9	44	2	28	14	0
Transport & comm..	13.4	43	14	5	8	16
Recreation, entertn.	-0.2	16	12	2	2	0
Education	6.6	24	6	10	4	4
Cleaning & laundry	3.5	36	12	16	4	4
Medicines	3.7	29	21	6	2	0
Overall	6.2	359	115	116	70	58

Note: Prices of 15 seasonal items were not reported during April 2006.

Table A3: Distribution of Price Changes - Selected CPI Items, April 2006				
Groups	Decrease or no change	Subdued increase (upto 5%)	Moderate increase (5 to 10%)	Increase of over 10%
Food Group	Eggs (farm) Onion Vegetable ghee Wheat flour bag Chicken (farm)	Wheat flour fine/sup. Pulse gram Rice basmati 385/386 Tea loose Kenya , average quality Tomatoes	Toffee (hilar) Curd Bread plain medium Size Bananas Cooked mutton (av. hotel)	Potatoes Milk Fresh Sugar refined Beef with bone Pulse Moong
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 Shirting av. qlty . Tailoring suit female	Ladies sandal Bata Gents Shoe, Service
House Rent Index	-	-	HRI	-
Fuel & Lighting	Bulb Phillips 100-Watt Elect. charges	Tube light Philips 40 watts		Gas charges Firewood whole Kerosene oil
H/hold Furniture	Refr. Dawlance 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 call 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	Com. 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. Urdu book class IX/X	School fee primary, eng. med. English book class V1
Cleaning & Laundry	Toilet paper roll Toothpaste 70 gm	Blade 7 o'clock Disposable Razor Gillet Lipstick S.Miss/Medora Artificial jewellery	Washing (kamiz-shalwar) Haircut charges for men	Washing ch. shirt Gold tezabi 24 Ct Silver tezabi 24 Ct
Medicare	Glaxos-D (450 gms) Entox tab. Brufen tabs 200-mg.	Jouhar joshanda Doctor (Mbbs) clinic fee	-	-

Table A4: Top Ten CPI Items (Ranked by Inflation Contribution)

Table A4: Top Ten CPI Items (Ranked by Inflation Contribution)								
Items		Unit	Weights	Price Apr-06	Year-on-Year change			Weighted contribution
					Apr-04	Apr-05	Apr-06	
A. Ranked by Weighted Contribution								
1	House Rent Index	MONTH	23.43	135.1	7.0	12.1	8.6	32.8
2	Milk Fresh (Unboiled)	LTR	6.53	23.4	5.9	10.6	12.6	13.4
3	Sugar Refined	KG	1.95	36.9	-8.8	43.3	41.1	13.0
4	Petrol Super	LTR	1.73	57.9	14.7	31.6	26.7	7.5
5	Beef With Bone average quality	KG	1.61	105.9	27.1	18.9	14.8	3.9
6	Gas Chrg10.1157 - 13.4876mmbtu	MMBTU	0.93	352.8	2.0	15.5	22.2	3.4
7	Pulse Moong (Washed)	KG	0.22	59.0	-6.9	25.3	75.8	2.7
8	Gas Cylinder Stand. Size	EACH	0.68	488.6	15.7	-5.6	23.2	2.6
9	Pulse Mash (Washed)	KG	0.20	66.5	-0.6	13.1	74.4	2.4
10	Potatoes	KG	0.53	19.3	26.2	113.0	25.6	2.2
Total			37.82					83.9
B. Ranked by Percentage Change								
1	Pulse Moong (Washed)	KG	0.22	59.0	-6.9	25.3	75.8	2.7
2	Pulse Mash (Washed)	KG	0.20	66.5	-0.6	13.1	74.4	2.4
3	Silver Tezabi 24 Ct	10 GM	0.03	205.9	21.6	15.0	44.1	0.2
4	Garlic	KG	0.14	61.0	9.9	38.6	44.0	1.0
5	Gram Whole Yellow average quality	KG	0.15	62.6	5.1	31.3	42.1	1.0
6	Sugar Refined	KG	1.95	36.9	-8.8	43.3	41.1	13.0
7	Gur average quality	KG	0.07	35.9	-5.7	43.6	40.6	0.5
8	Gold Tezabi 24 Ct	10 GM	0.20	11389.3	19.9	11.7	36.6	1.2
9	High Speed Diesel HSD	LTR	0.21	38.9	15.8	23.9	33.1	1.1
10	Train Fare Eco. 1-100 Km.	P/KM	0.01	0.5	0.0	0.0	28.6	0.1
Total			3.18					23.2

Table A5: City-wise Inflation (YoY) by Income Groups, April 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	7.0	4.5	8.9	6.7	3.5	8.9	6.6	3.1	9.1	6.9	2.7	10.1	6.7	3.0	9.6
2	Faisalabad	4.2	1.2	6.5	4.7	1.9	6.7	4.9	2.1	7.0	5.7	1.4	8.9	5.3	1.7	8.0
3	Rawalpindi	9.0	9.1	8.9	8.5	7.6	9.2	9.1	8.2	9.7	10.3	8.4	11.7	9.7	8.3	10.7
4	Multan	6.1	4.0	7.7	5.4	3.1	7.1	5.4	2.6	7.5	6.3	2.5	9.1	5.7	2.7	8.0
5	Gujranwala	5.4	4.5	6.0	5.1	3.6	6.1	5.5	4.0	6.6	5.9	4.0	7.2	5.5	4.0	6.7
6	Islamabad	9.8	9.0	10.3	9.9	8.8	10.6	9.7	8.7	10.4	10.9	9.3	12.0	10.7	9.2	11.8
7	Sargodha	5.9	3.2	7.8	5.2	2.9	6.9	4.2	1.9	5.9	3.8	-0.3	7.0	4.3	1.5	6.3
8	Sialkot	7.3	6.2	8.1	7.4	6.4	8.1	6.9	5.2	8.2	7.2	4.7	9.0	7.1	5.0	8.6
9	Bahawalpur	5.9	3.0	8.0	6.4	3.6	8.5	6.1	3.0	8.4	5.7	0.7	9.6	6.0	2.5	8.7
10	Karachi	5.9	4.4	7.0	5.6	3.0	7.5	5.4	2.5	7.5	6.5	2.1	9.8	6.0	2.4	8.6
11	Hyderabad	3.7	1.7	5.1	3.5	1.2	5.2	3.7	1.2	5.6	4.2	0.8	6.7	3.8	1.1	5.8
12	Sukkur	5.4	4.8	5.8	5.1	3.9	5.9	5.2	4.1	6.0	5.3	3.6	6.5	5.2	4.0	6.0
13	Larkana	3.1	0.7	4.9	2.5	0.5	4.2	2.7	0.5	4.4	2.4	-0.3	4.6	2.6	0.3	4.4
14	Peshawar	5.0	4.1	5.6	5.2	4.1	6.0	5.4	3.7	6.6	5.9	2.4	8.5	5.6	3.2	7.4
15	Bannu	6.5	6.6	6.5	5.6	4.8	6.2	4.5	3.0	5.6	3.6	0.7	5.9	4.5	2.9	5.8
16	Quetta	4.5	1.8	6.6	4.5	1.6	6.6	4.9	1.4	7.4	5.4	0.6	8.9	5.1	1.1	8.0
17	Khuzdar	7.0	7.2	6.8	6.5	6.7	6.3	6.1	6.6	5.8	6.9	6.8	7.0	6.4	6.7	6.1
Average		6.0	4.5	7.1	5.8	3.9	7.1	5.7	3.7	7.2	6.1	3.0	8.4	5.9	3.5	7.7
Minimum		3.1	0.7	4.9	2.5	0.5	4.2	2.7	0.5	4.4	2.4	-0.3	4.6	2.6	0.3	4.4
Median		5.9	4.4	6.8	5.4	3.6	6.7	5.4	3.0	7.0	5.9	2.4	8.9	5.6	2.9	8.0
Maximum		9.8	9.1	10.3	9.9	8.8	10.6	9.7	8.7	10.4	10.9	9.3	12.0	10.7	9.2	11.8

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	Apr-06
<u>Up to Rs. 3000</u>										
General	8.7	8.2	7.9	7.4	7.0	8.4	8.4	8.2	6.9	6.02
Food	9.5	8.4	7.8	6.3	5.6	8.5	8.5	8.2	6.2	4.50
Non-food	8.1	8.0	8.0	8.2	8.0	8.3	8.4	8.1	7.4	7.12
<u>Rs. 3001-5000</u>										
General	8.6	8.0	7.8	7.2	6.8	8.2	8.5	8.0	6.7	5.79
Food	9.3	8.0	7.4	5.9	5.2	8.2	8.3	7.8	5.7	4.01
Non-food	8.1	8.0	8.0	8.2	7.9	8.2	8.6	8.1	7.4	7.07
<u>Rs. 5001-12000</u>										
General	8.7	8.0	7.9	7.6	7.2	8.2	8.5	7.9	6.7	5.84
Food	9.5	7.8	7.5	6.2	5.6	8.1	8.2	7.6	5.5	3.84
Non-food	8.2	8.1	8.3	8.6	8.3	8.2	8.8	8.1	7.6	7.29
<u>Above Rs. 12000</u>										
General	9.3	8.8	9.3	9.2	8.9	8.9	9.0	8.2	7.1	6.53
Food	10.2	7.8	7.6	6.9	6.5	8.1	8.1	7.2	5.1	3.22
Non-food	8.7	9.6	10.4	10.8	10.6	9.5	9.6	8.8	8.5	8.97
<u>All income groups</u>										
General	9.0	8.4	8.5	8.3	7.9	8.5	8.8	8.0	6.9	6.2
Food	9.7	7.8	7.5	6.4	5.8	8.1	8.2	7.5	5.4	3.6
Non-food	8.5	8.8	9.3	9.6	9.4	8.8	9.2	8.4	8.0	8.0

Table A7: Distribution of Wholesale Price Changes (YoY), April 2006				
Groups	Decrease or no change	Subdued increase (up to 5%)	Moderate increase (5 to 10%)	More than 10% increase
Food	Onions Vegetables Eggs Chicken Bajra Maize Masoor Fresh fruits Rice Cotton seed oil Cooking oil Wheat flour Mustard & rapeseed Oil Wheat Sugar confectionary Vegetable ghee Dry fruits	Spices Maida Condiments Fish Tomatoes Gram split Besan Milk food Tea Vegetables Prepared/preserved	Fruit prepared/preserved Mineral water Powdered milk Beverages Fresh milk Jowar Salt Oil cakes	Beans Meat Potatoes Gram whole Gur Sugar refined Mash Moong
Raw material	Skins Hides Cotton seeds Mustard/rapeseeds	Pig iron	Cotton	Wool Tobacco Sugarcane
Fuel & lighting	Coke Mobil oil Electricity ind. supply Tariff-B Electricity agriculture tariff-D	-	-	Coal Fire wood Natural gas Kerosene oil Motor sprit Diesel oil Furnace oil
Manufactures	Nylon yarn Blended yarn Chemicals Other electrical goods Soaps Utensils Glass products Plastic products Silk & rayon textiles Chrome leather Matches	Drugs & medicines Hosiery Cotton textiles Woolen textiles Tyres Cotton yarn Ready made garments Machinery Mattresses Foot wear Transports Sole leather Pesticides & insecticides	Paper Dying materials Audio-visual Instruments Tubes Jute manufactures Cosmetics Fertilizers Cigarettes	-
Building material	Iron Bars & Sheets Paints & Varnishes Pipe Fittings	Tiles Cement blocks Timber Glass sheets Sanitary wares	Bricks	Wires & cables Cement

Table A8: SPI Item-wise Price Movements

	Items	Unit	Price as in Apr-2005	Percentage change in Apr-06 over		
				Jun-05	Apr-05	Mar-06
1	Wheat	Kg.	11.5	1.2	-1.5	-3.4
2	Wheat flour average quality	Kg.	13.2	1.5	-2.1	-0.5
3	Rice basmati broken	Kg.	20.3	-1.3	-1.7	0.4
4	Rice irri-6	Kg.	16.1	-0.2	0.5	0.4
5	Masoor pulse washed	Kg.	44.5	-3.2	-6.0	1.1
6	Moong pulse washed	Kg.	60.2	54.9	74.9	22.2
7	Mash pulse washed	Kg.	68.4	65.5	71.7	26.1
8	Gram pulse washed	Kg.	35.2	26.6	3.3	11.6
9	Beef	Kg.	113.4	12.1	15.6	2.9
10	Mutton	Kg.	213.9	11.2	12.9	2.8
11	Egg hen (farm)	Doz.	23.0	-28.2	-31.9	-3.7
12	Bread plain m.s.	Each	14.4	4.4	4.7	0.1
13	Sugar	Kg.	36.8	39.0	40.0	3.3
14	Gur	Kg.	37.0	21.5	39.9	6.4
15	Milk fresh	Litr	24.3	5.4	11.0	1.5
16	Milk powdered Nido	400g	110.7	4.6	7.1	2.1
17	Curd	Kg.	29.0	4.9	11.0	1.9
18	Vegetable ghee tin	2.5k	203.5	-0.3	0.1	0.0
19	Vegetable ghee loose	Kg.	59.1	0.5	0.1	-0.2
20	Mustard oil	Kg.	66.9	2.0	1.9	-0.3
21	Cooking oil	2.5l	204.3	-0.3	-0.3	0.0
22	Potatoes	Kg.	19.6	9.6	21.8	11.9
23	Onions	Kg.	12.4	5.3	-43.1	15.7
24	Tomatoes	Kg.	17.6	-6.1	-7.0	-35.8
25	Bananas	Doz.	28.7	-11.6	8.9	4.5
26	Salt powdered	Kg.	4.1	11.7	15.2	2.2
27	Red chillies (powder)	Kg.	68.0	-8.5	-9.1	-0.5
28	Garlic	Kg.	61.6	15.3	34.9	5.3
29	Tea packet	250g	64.7	4.5	4.3	4.5
30	Tea (prepared)	Cup	6.0	10.9	14.9	0.5
31	Cooked beef plate	Each	26.7	6.0	7.5	2.7
32	Cooked dal plate	Each	16.3	8.5	9.8	4.2

Continued...

	Items	Unit	Price as in Apr-2005	percentage change in Apr-06 over		
				Jun-05	Apr-05	Mar-06
33	Cigarettes k-2	10's	7.1	-0.7	3.1	0.0
34	Coarse latha	Mtr.	34.6	3.6	4.5	0.2
35	Lawn (avg.+s.qlty)	Mtr.	78.1	2.8	5.6	4.9
36	Voil printed	Mtr.	36.9	0.1	-0.2	2.4
37	Shirting	Mtr.	62.9	2.9	3.6	0.2
38	Sandal gents Bbata	Pair	399.0	-4.8	-20.0	0.0
39	Sandal ladies Bata	Pair	299.0	3.5	20.1	0.0
40	Chappal spng. Bata	Pair	89.0	0.0	0.0	0.0
41	Kerosene	Litr	36.5	16.5	16.5	0.0
42	Firewood	40kg	179.6	23.3	25.1	1.0
43	Elec. Bulb 60-wats	Each	11.3	-2.2	-2.2	-0.4
44	Match box	Each	0.6	5.1	12.7	0.0
45	Washing soap	Cake	7.8	3.3	4.1	0.3
46	Bath soap lifebuoy	Cake	13.9	-0.1	-0.4	0.0
47	Chicken (farm)	Kg.	55.8	-23.1	-24.7	9.6
48	Gas chrg. All clb. Comb	D.mmbt	93.1	9.5	9.5	0.0
49	L.p.g .(cylinder 11kg.)	Each	430.2	26.5	14.4	-9.3
50	Elec.chrg.all slabs com	Bd. Unit	2.4	0.0	0.0	0.0
51	Petrol	Litr	56.4	23.5	23.5	0.0
52	Diesel	Litr	37.3	27.8	27.8	0.0
53	Telephone local	Call	2.3	0.0	0.0	0.0
Max:				65.5	74.9	26.1
Median				3.6	4.5	0.3
Min:				-28.2	-43.1	-35.8

Figure A1: Frequency Distribution of Price Changes of CPI Items

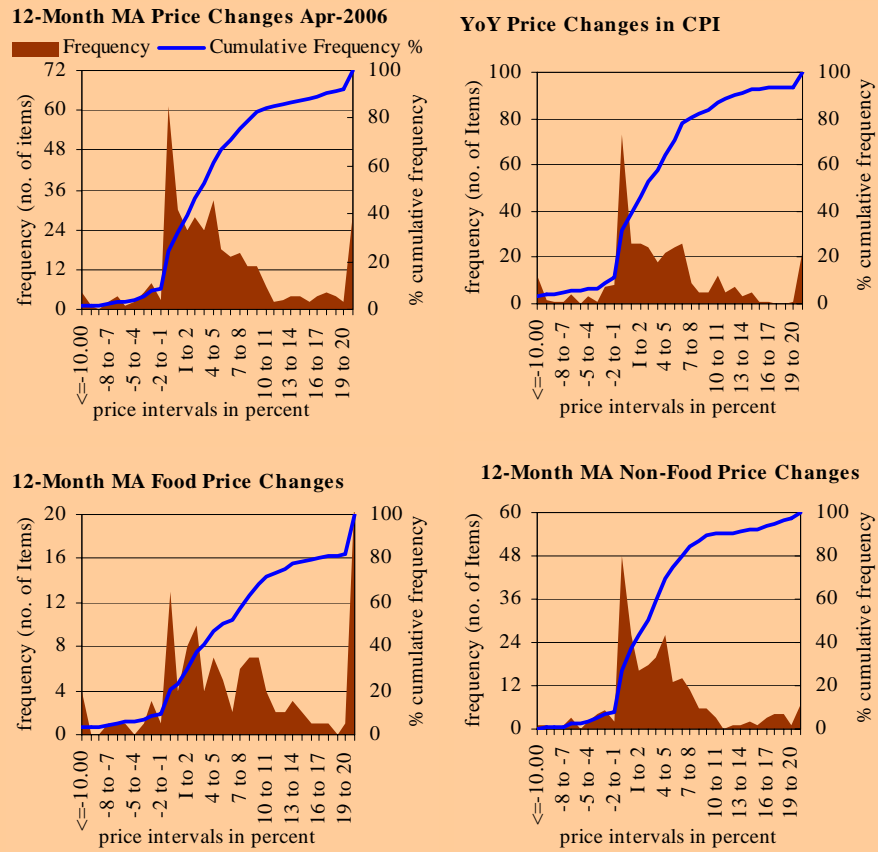
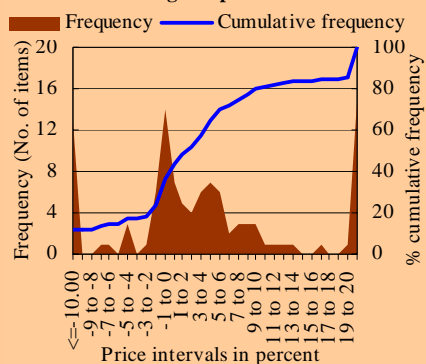
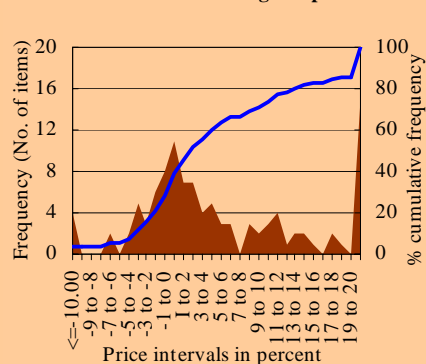


Figure A2: Frequency Distribution of Price Changes of WPI Items

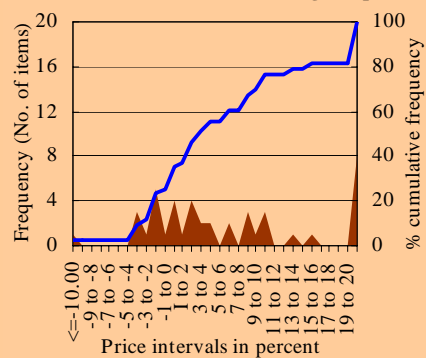
YoY Price Changes Apr-06



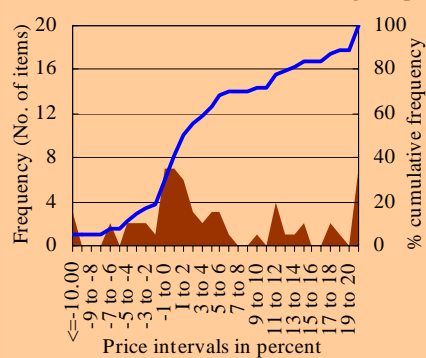
12-month MA Price Changes Apr-06



12-month MA Food Price Changes Apr-06



12-month MA non-food Price Changes Apr-06



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:

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

5. Period average inflation is the percent change of the average index during the period from July to the given month of a fiscal year over the average index during the corresponding period of the last year. It is computed as follows:

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

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

6. 12-month moving average inflation (Long-run trend inflation) is the percent change of 12-month moving average of a price index; it is computed as follows:

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

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.