

Inflation Monitor

May 2011



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Team Leader

Dr. Muhammad Nadeem Hanif

nadeem.hanif@sbp.org.pk

Researchers

Imran Naveed Khan

imran.naveed@sbp.org.pk

Saghir Pervaiz Ghauri

saghir.pervaiz@sbp.org.pk

Editing

Umar Siddique

umar.siddique@sbp.org.pk

Overview

Headline inflation (year-on-year percentage change in CPI) increased slightly to 13.2 percent in May 2011 from 13.0 percent in the previous month. It was 13.1 percent during the same month last year. During the reviewed month, non-food group showed double digit inflation (YoY) (after being remained in single digit, from January through March 2011) reaching to 11.0 percent as against 9.5 percent in April 2011 and 11.7 percent in May 2010. The increase came mainly due to increase in administered prices of fuel and electricity during the month under review. Food inflation decelerated from 17.2 percent during April 2011 to 15.9 percent in May 2011. It was recorded at 14.8 percent in May 2010.

Table 1.1: Inflation Trends (percent)

	CPI						Core Inflation							
	General		Food		Non-food		NFNE*		Trimmed		WPI		SPI**	
	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM
May-10	13.1	0.1	14.8	0.0	11.7	0.1	10.3	0.6	12.5	0.4	21.2	0.9	17.4	0.8
Jun-10	12.7	0.6	14.5	0.7	11.2	0.6	10.4	0.7	11.7	0.7	17.6	-0.6	16.5	0.4
Jul-10	12.3	1.2	12.8	1.5	12.0	1.0	10.3	0.5	12.0	0.7	18.7	1.7	14.9	1.8
Aug-10	13.2	2.5	15.6	5.1	11.2	0.3	9.8	0.4	12.5	0.7	19.2	2.6	16.2	2.6
Sep-10	15.7	2.7	21.2	5.3	11.0	0.3	9.4	0.4	12.8	0.9	21.5	2.1	19.1	3.5
Oct-10	15.3	0.6	20.1	0.1	11.3	1.1	9.3	0.7	12.8	1.0	23.8	3.1	20.9	1.7
Nov-10	15.5	1.5	20.5	2.2	11.1	0.9	9.5	1.0	13.4	1.2	24.7	3.5	22.5	3.3
Dec-10	15.5	-0.5	20.4	-1.9	11.4	0.8	9.5	0.7	13.6	0.7	25.7	1.1	21.5	-0.5
Jan-11	14.2	1.3	20.4	2.1	9.0	0.6	9.4	0.7	12.2	0.9	22.6	1.6	18.4	0.6
Feb-11	12.9	-0.7	17.7	-2.1	8.9	0.5	9.2	0.6	11.7	0.4	24.4	1.9	16.2	-1.0
Mar-11	13.2	1.5	18.0	2.0	9.1	1.0	9.5	1.0	11.9	1.1	25.4	3.3	16.3	1.2
Apr-11	13.0	1.6	17.2	1.4	9.5	1.8	9.4	1.6	11.6	1.2	25.9	2.3	16.1	0.9
May-11	13.2	0.2	15.9	-1.1	11.0	1.4	10.2	1.3	12.1	0.9	22.9	-1.6	15.4	0.2

* NFNE is Non-food non-energy inflation; ** SPI for all income groups combined.

12-month moving average CPI inflation for May 2011 remained unchanged at 13.9 percent (since December 2010). It was higher than 11.8 percent recorded a year earlier (May 2010). The 12-month moving average food inflation depicted a slight rise (reaching 17.9 percent in May 2011 from 17.8 percent in April 2011). It was 12.1 percent in May 2010. Non-food inflation declined from 10.6 percent in April 2011 to 10.5 percent in May 2011. The same was 11.4 percent in May 2010.

In contrast to CPI headline inflation, month-on-month (MoM) inflation showed significant decline and was recorded at 0.2 percent in May 2011 compared to 1.6 percent in the previous month. This was due to a (MoM) deflation in food prices and a fall in non-food inflation during the month under review compared to the previous month (see **Table 1.1**).

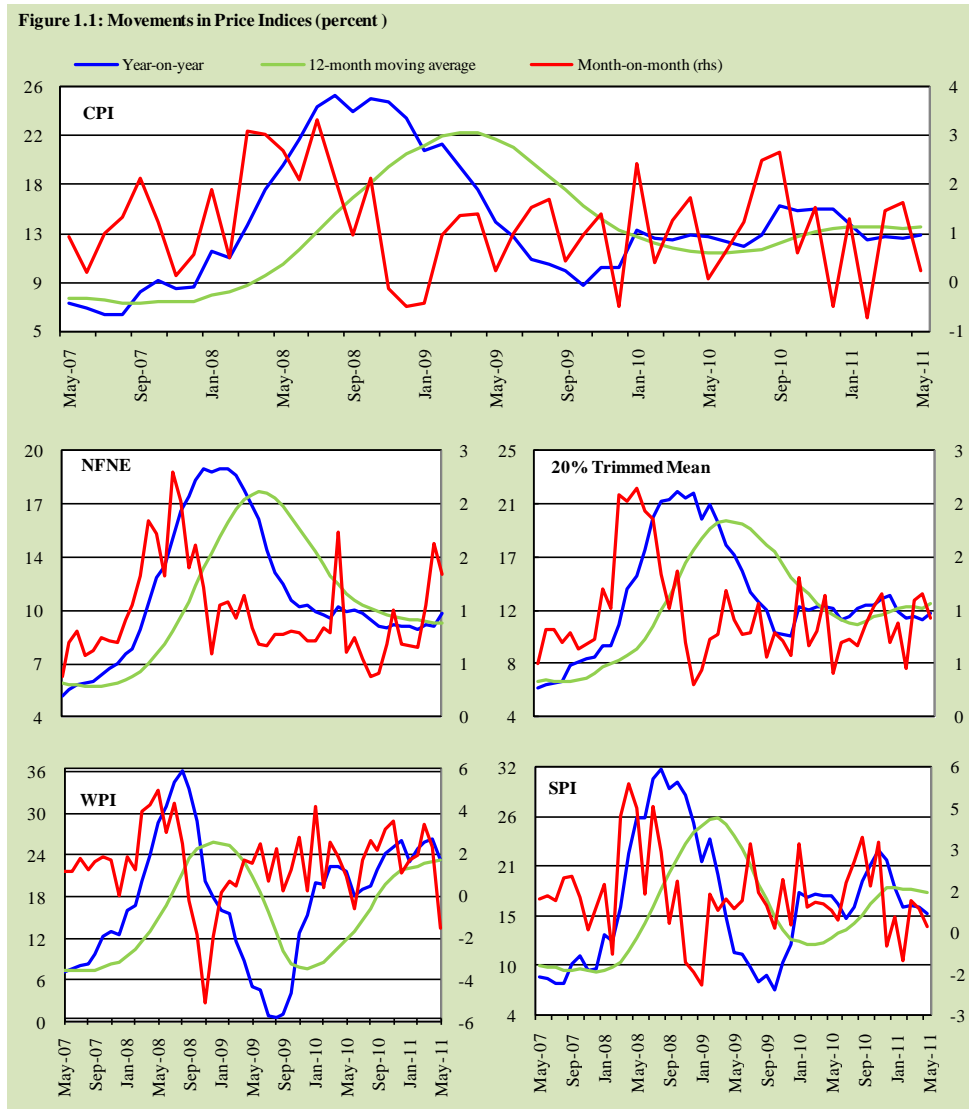
Both measures of core inflation, i.e., NFNE and 20% trimmed mean, showed an increase (on YoY basis) during May 2011 compared to the previous month. However, core inflation was lower slightly in the month under review compared to

what we observed during the corresponding period last year (see **Table 1.1 & Figure 1.1**). On MoM basis, both these measures showed decline of 0.3 percentage points during May 2011 compared to April 2011.

A deceleration was seen in both the WPI and SPI inflation (YoY) during the May 2011 compared to April 2011. WPI (YoY) inflation was 22.9 percent in May 2011 compared to 25.9 percent in April 2011 and 21.2 percent in the same month last year. SPI inflation (YoY) reached 15.4 percent during the month under review from 16.1 percent in previous month (and 17.4 percent in corresponding month last year).

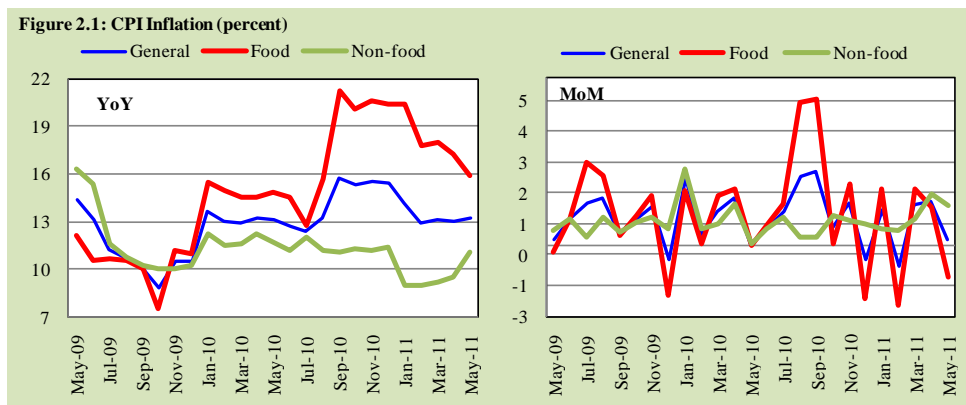
For the first time during FY2011, a deflation (of 1.6 percent) was recorded on MoM basis in WPI in May 2011 (compared to inflation of 2.3 percent in the previous month). MoM inflation in SPI decelerated to 0.2 percent in May 2011 compared to 0.9 percent during the previous month.

During May 2011, inflation diffusion for overall CPI basket decreased to 47.4 percent from 52.7 percent in April 2011, but was higher by 9.4 percentage points compared to the corresponding month last year. Diffusion of core inflation (NFNE) also decreased during the month under review to 60.2 percent as against 62.3 percent in April 2011 and 48.3 percent during May 2010. Inflation diffusion indices fell on the back of declining MoM inflation.

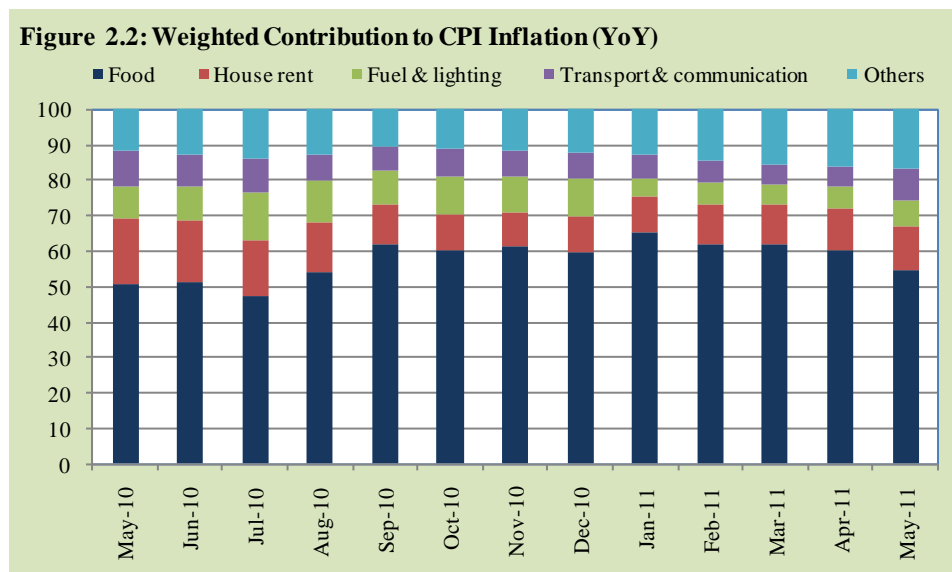


2. Consumer Price Index

CPI inflation (YoY) increased to 13.2 percent during May 2011 from 13.0 percent in the previous month. This marginal increase was mainly attributed to increase of 1.5 percentage points in non-food inflation (YoY) as food inflation (YoY) declined significantly (by 1.3 percentage points). In contrast to CPI YoY inflation, month-on-month (MoM) inflation decreased from 1.6 percent during April 2011 to 0.2 percent in May 2011 (see **Table 1.1** and **Figure 2.1**).



As CPI food inflation (YoY) showed a decline during the month under review, the weighted contribution of food inflation to overall CPI inflation also decreased to 54.7 percent compared to 60.2 percent in the previous month, but it was higher compared to same month last year (50.9 percent). Being a mirror image, weighted contribution of non-food group increased during May 2011 (45.3 percent) compared to the previous month (39.8 percent). However, it was lower compared to the same month last year (49.1 percent). Within non-food group, out of nine sub-groups, three (*household furniture & equipment, recreation & entertainment, and education*) reported same weighted contribution during May 2011 compared to the previous month, while other sub-groups recorded an increase during the month under review (see **Figure 2.2**).



2.1 Food Inflation

CPI food inflation continues its declining trend on YoY basis and recorded deflation on MoM basis. CPI food inflation (YoY) dropped to 15.9 percent during May 2011 compared to 17.2 percent in April 2011. It was at 14.5 percent during the same month last year (see **Figure 2.3**).

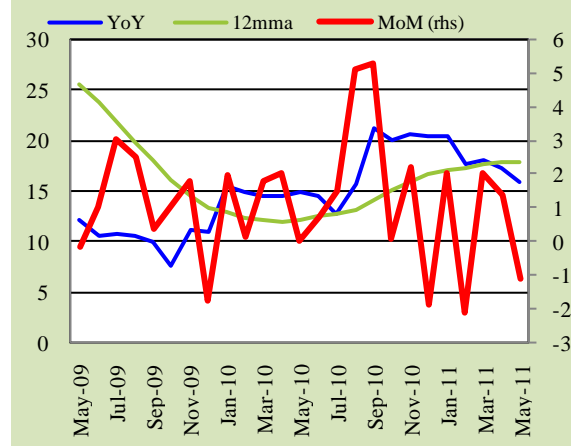
This decline in CPI food inflation during May 2011 on YoY basis was mainly due to decline in the prices of some key food staples like onions, tomatoes, pulse masoor, ginger, and chicken compared to the same month last year.

Six out of top ten contributors to CPI inflation (YoY) during May 2011 were from the food group, including fresh milk, vegetable ghee, meat, fresh fruits, readymade food, and spices. Combined weighted contribution of these food items in the overall CPI food inflation was 36.1 percent. Within the food group, just four items, i.e., fresh milk, vegetable ghee, meat, and fresh fruits contributed 61.6 percent to YoY food inflation (see **Table A3** in **Annexure A**).

Detailed analysis of price movements in CPI food basket reveals that out of the reported 110 commodities, 78 commodities including pulse moong, mash, ginger, sugar, potatoes exhibited price changes (YoY) in the range of 10 to 50 percent during May 2011; two commodities of food group that witnessed more than 50 percent price change (YoY) were chillies powder (71.4 percent) and cardamom large (154.5 percent). On the other hand, prices of 7 commodities (onions, tomatoes, brinjal, pulse masoor, ginger, chicken and pulse mash) declined and 2 showed no change during the month under review. Remaining 21 commodities showed price change (YoY) between 0 to 10 percent (see **Table A2** in **Annexure A**).

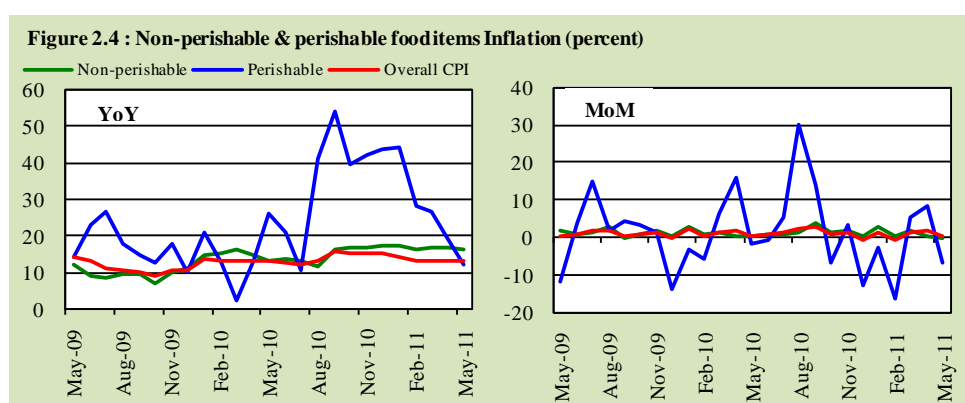
During May 2011 deflation (MoM) of 1.1 percent in food group was recorded compared to inflation (MoM) of 1.4 percent in the previous month. Commodity-wise analysis of price changes on MoM basis of the CPI food basket showed that 4 commodities including green apple, ice cream, powder milk and potatoes, recorded a double digit price change during May 2011, whereas 30 commodities

Figure 2.3 CPI Food Inflation (percent)



including tomatoes, onions, green chillies, eggs, chicken, garlic, wheat etc. declined.

Further disaggregation (of 40 composite food items in the CPI basket) can be made on the basis of perishable and non-perishable commodities. Inflation (YoY) in the perishable group declined and was recorded at 12.2 percent during May 2011, which was lower than the 18.6 percent in the previous month and 26.2 percent in the same month last year. However, perishable commodities recorded deflation on MoM basis and was recorded at 7.0 percent during May 2011 compared to inflation of 8.3 percent during the previous month. Prices of perishable commodities are often volatile and this was clearly seen in both YoY

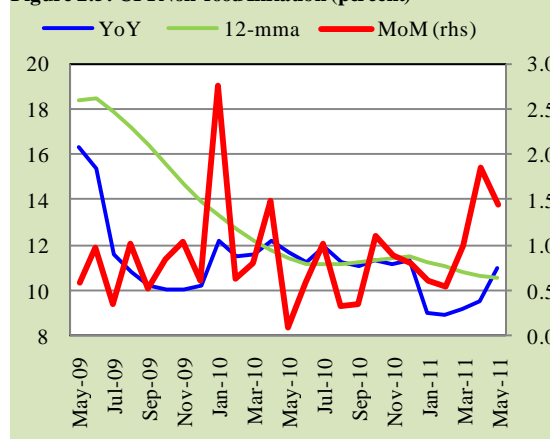


and MoM inflation numbers. Inflation (YoY) in non-perishable commodities decreased to 16.4 percent in May 2011 from 17.0 percent in April 2011. It was higher compared to 13.3 percent observed in the corresponding month last year. In line with perishable group, in this group of commodities a deflation of 0.2 percent was recorded during the month under review compared to inflation of 0.4 percent in the previous month (see **Figure 2.4**).

2.2 Non-food Inflation

Opposite to a fall in inflation (YoY) in food group, inflation (YoY) in non-food group registered an increase of 1.5 percentage points during May 2011 compared to the previous month. However, non-food

Figure 2.5: CPI Non-food Inflation (percent)



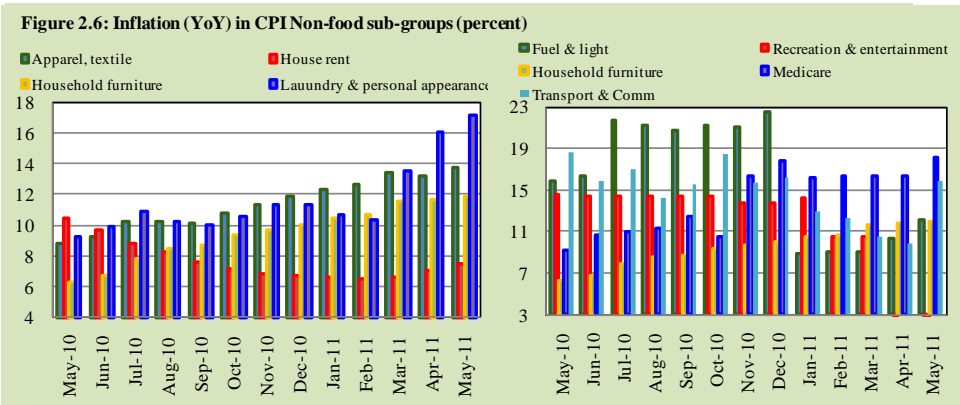
inflation was lower (by 0.7 percentage points) compared to its level during the corresponding month last year. On MoM basis, non-food inflation declined by 0.4 percentage points to 1.4 percent in May 2011 from 1.8 percent April 2011 (see **Figure 2.5**).

There was increase in YoY inflation for all the nine sub-groups of non-food group during May 2011. However, on MoM basis, a fall in inflation was witnessed in all these nine subgroups except house rent and fuel & lighting subgroups (where we observed a rise in MoM inflation) during the month under review.

Transport & communication sub-group's inflation (YoY) increased during May 2011, which was a result of increase in prices of petrol, diesel, CNG during the month under review. Inflation (YoY) in this sub-group reached 15.9 percent during May 2011 from 9.8 percent in April 2011. It was lower than 18.7 percent in May 2010. However, on month-on-month basis, inflation in this sub-group declined to 3.3 percent during the reviewed month compared to 5.1 percent last month.

Inflation (YoY) in *fuel & lighting* sub-group also increased during the month, which was a result of increase in kerosene oil, firewood and natural gas prices during May 2011. Inflation (YoY) in this sub-group reached 12.1 percent during May 2011 from 10.3 percent in April 2011. It was lower than 15.8 percent in May 2010. On month-on-month basis, inflation in this sub-group also increased marginally to 0.8 percent during the reviewed month compared to 0.7 percent April 2011.

Medicare sub-group's inflation (YoY) also increased during May 2011 to 18.1 percent compared to 16.3 percent in April 2011 and 9.2 percent in the corresponding month last year. However, inflation (MoM) in this sub-group dropped to 2.3 percent during May 2011 from 2.5 percent in the previous month.



Inflation (YoY) in *house rent index* (HRI) increased to 7.5 percent during May 2011 from 7.0 percent in April 2011 and 10.5 percent in the same month last year. HRI inflation on MoM basis increased to 1.0 percent during May 2011 compared to 0.9 percent in April 2011 (see **Figure 2.6 & A1** in **Annexure A**).

Detailed analysis of 250 commodities included in CPI non-food basket showed that prices of only 4 commodities declined, 47 showed no (YoY) change in their prices, 36 showed price changes between 0 to 5 percent, 38 depicted price changes between 5 to 10 percent, and 125 commodities witnessed price changes of more than 10 percent. The commodities which showed significant (YoY) price change included silver (123.7 percent), gas cylinder (67.4 percent), and glaxos-D (56.3 percent) (see **Table A2 & A4** in **Annexure A**).

2.3 Inflation Diffusion

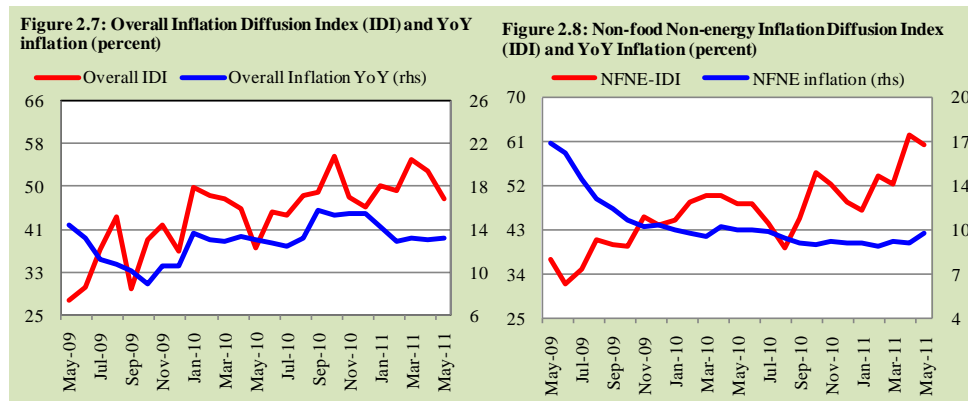
In order to see how widespread inflation is in the CPI basket (of 374 commodities), inflation diffusion index (IDI) can be used. It is based on MoM change in the prices of commodities¹.

Table 2.1: Inflation Diffusion Index - based on MoM change (percent)

	General	Food Beverages & Tobacco	Apparel, Textile & Footwear	Fuel & Lighting	Household Furniture & Equipment	Transport & Communi- cation	Recreation & Entertainment	Education	Cleaning, Laundry & Personal Appearance	Medicare	NFNE*
May-10	38.0	23.3	64.3	-6.7	84.1	14.0	43.8	33.3	61.1	10.3	48.3
Jun-10	44.6	43.1	69.0	26.7	75.0	37.2	-18.8	20.8	58.3	24.1	48.3
Jul-10	44.2	45.5	59.5	40.0	88.6	30.2	-6.3	12.5	55.6	10.3	44.4
Aug-10	47.9	69.7	61.9	26.7	90.9	30.2	18.8	12.5	13.9	3.4	39.2
Sep-10	48.3	61.8	69.0	20.0	88.6	20.9	0.0	20.8	38.9	20.7	45.3
Oct-10	55.2	52.7	81.0	73.3	93.2	44.2	25.0	16.7	61.1	17.2	54.7
Nov-10	47.6	42.3	76.2	20.0	95.5	30.2	18.8	29.2	58.3	10.3	52.2
Dec-10	45.5	38.9	81.0	53.3	93.2	27.9	12.5	0.0	52.8	13.8	48.7
Jan-11	49.9	61.5	78.6	20.0	84.1	30.2	31.3	25.0	27.8	13.8	47.0
Feb-11	48.9	43.5	78.6	20.0	86.4	53.5	31.3	16.7	44.4	17.2	53.9
Mar-11	54.7	62.0	78.6	40.0	88.6	32.6	18.8	25.0	66.7	10.3	52.1
Apr-11	52.7	31.8	76.2	33.3	93.2	55.8	31.3	58.3	72.2	20.7	62.3
May-11	47.4	21.1	64.3	33.3	97.7	39.5	43.8	62.5	75.0	17.2	60.2

*: Non-food-non-energy

¹ For details, see Appendix B



A decline of 5.3 percentage point in inflation diffusion index was recorded during May 2011 compared to the previous month (see **Figure 2.7 & Table 2.1**). Inflation diffusion index for non-food non-energy group also decreased during May 2011 (see **Figure 2.8**). IDI for CPI basket and NFNE group declined on the back decline in (MoM) overall CPI inflation and the NFNE inflation compared to previous month. IDI for food group fell significantly by one-third during May 2011 from its level a month earlier on the back of deflation in the food prices. The diffusion indices of inflation for apparel, textile & footwear; transport & communication, and medicare also showed decline during May 2011. However, it increased for household, furniture & equipment; recreation & entertainment; cleaning, laundry & personal appearance; and education subgroups (see **Figure A4 of Appendix A**).

2.4 City-wise Inflation

City-wise data reveals that during May 2011, inflation (YoY) in the four (out of five) major cities was lower than the overall headline inflation. Only Peshawar saw 1.4 percentage points higher inflation than the headline inflation (see **Table 2.2**).

	May-10		Apr-11		May-11	
	MoM	YoY	MoM	YoY	MoM	YoY
Over all CPI	0.1	13.1	1.6	13.0	0.2	13.2
Islamabad	0.1	11.4	1.6	10.7	0.2	11.6
Lahore	-0.2	12.8	1.6	9.2	0.6	9.4
Karachi	0.5	13.7	1.7	11.5	0.7	10.7
Quetta	0.6	12.2	1.8	11.2	-0.1	13.1
Peshawar	-0.8	12.3	0.7	14.7	0.9	14.6

The inflation data collected from 35 cities revealed that 23 cities recorded higher inflation (YoY) than the overall inflation, while 12 remaining cities registered lower than average inflation during May 2011. The highest inflation (YoY) was recorded in D. I. Khan, while Lahore & Sialkot shared the lowest inflation (YoY) during the month. The highest food inflation was recorded in D. I. Khan and the lowest in Sialkot during the month under review. While the highest non-food

inflation (YoY) was recorded in Bahawalnagar, the lowest non-food inflation was observed in Lahore (see **Table A6** in **Annexure A**).

2.5 Income Group-wise Inflation

Income group-wise (YoY) inflation data indicates that all income groups, except the highest income group, experienced higher inflation than the overall CPI inflation. However, it was other way round in the case of food inflation where inflation was higher than the overall (CPI food) inflation for the highest income group during May 2011. In non-food group, inflation was higher than overall non-food inflation for the lowest and lower middle income groups during the month under review (see **Table 2.3**).

Table 2.3: Income Group-wise Inflation (YoY)

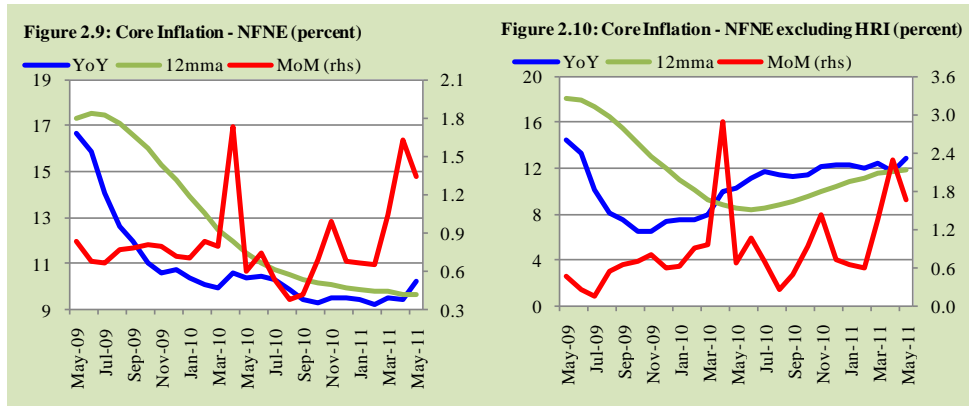
	General			Food			Non-food		
	May-10	Apr-11	May-11	May-10	Apr-11	May-11	May-10	Apr-11	May-11
Up to Rs. 3000	12.7	14.5	14.6	14.3	16.8	15.6	10.7	11.6	13.1
Rs. 3001-5000	12.7	14.1	14.1	14.3	16.7	15.4	10.9	11.0	12.4
Rs. 5000-12000	12.9	13.3	13.3	14.7	16.9	15.6	11.1	9.6	10.9
Above Rs. 12000	13.4	12.6	13.1	15.2	18.0	16.5	12.3	9.3	11.0
All income groups	13.1	13.0	13.2	14.8	17.2	15.9	11.7	9.5	11.0

City and income group-wise data, collected from 17 cities, showed that the highest (YoY) inflation was recorded in Larkana (for all income groups) while Sialkot experienced the lowest (YoY) inflation (for all income groups) during May 2011. Larkana also observed highest inflation (YoY) in food group for all income groups during May 2011. While Lahore and Sialkot experienced lowest food inflation in first two and last two income groups respectively during the month under review. Khuzdar and Bannu witnessed highest (YoY) inflation in non-food group for first two and last two income groups respectively in May 2011. Islamabad had lowest (YoY) non-food inflation in first three income groups while Lahore experienced lowest (non-food) inflation for the highest income group (see **Table A5** in **Annexure A**).

2.6 Core Inflation

Core inflation (YoY) measured by NFNE increased to 10.2 percent during May 2011 from 9.4 percent in the previous month. It was 10.3 percent in the corresponding month last year. However, on MoM basis NFNE core inflation showed a decrease and was recorded at 1.3 percent in May 2011 compared to 1.6 percent during April 2011 (see **Figure 2.9**).

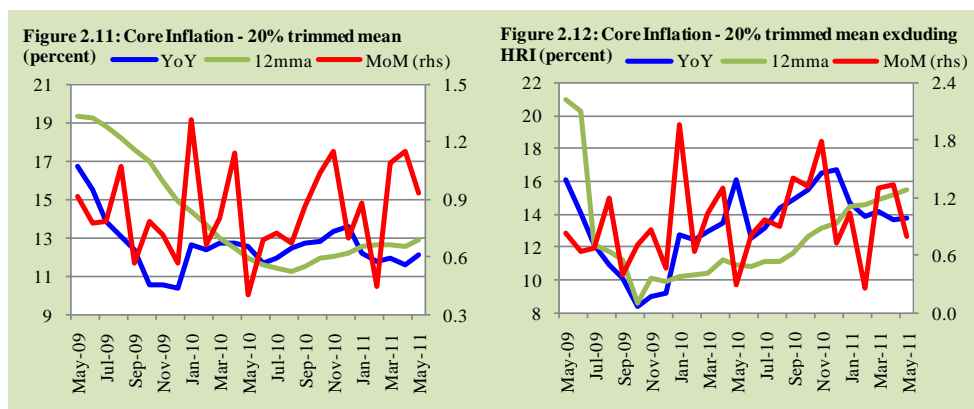
NFNE excluding HRI core inflation (YoY) also increased to 12.8 percent in May 2011 from 11.7 percent in April 2011. The same was 10.2 percent in May 2010. However, on MoM basis NFNE excluding HRI core inflation showed a decline of 0.6 percentage points and was recorded at 1.7 percent in May 2011 compared to 2.3 percent during April 2011 (see **Figure 2.10**).



Core inflation (YoY) measured by 20% trimmed mean also increased and was recorded at 12.1 percent during May 2011 from 11.6 percent in the previous month and 12.5 percent in the corresponding month last year. However, on MoM basis 20% trimmed mean core inflation declined to 0.9 percent in May 2011 from 1.2 percent during April 2011 (see **Figure 2.11**).

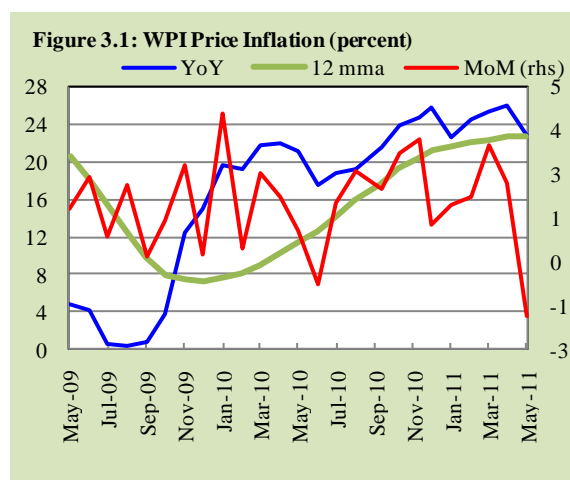
Excluding HRI from 20% trimmed mean basket, core inflation (YoY) increased marginally to 13.8 percent in May 2011 from 13.7 percent in April 2011. The same was 16.1 percent in May 2010. However, on MoM basis ‘20% trimmed mean core inflation excluding HRI’ showed a decline of 0.5 percentage points and was recorded at 0.8 percent in May 2011 compared to 1.3 percent in the previous month (see **Figure 2.12**).

Summing up, all the core inflation measures indicate a decline in MoM inflation while slight increase in YoY inflation.

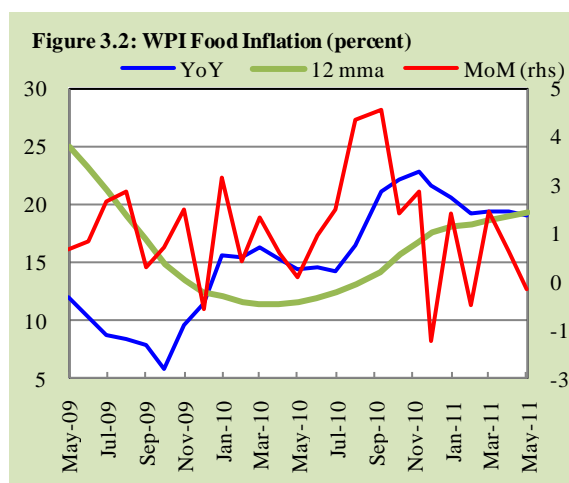


3. Wholesale Price Index

After increasing for 4 months, WPI inflation (YoY) significantly declined during May 2011 and was recorded at 22.9 percent compared to 25.9 percent in the previous month. This was higher compared to May 2010 WPI inflation of 21.2 percent (see **Figure 3.1**). Both food and non-food groups contributed to this decline.



Inflation based on MoM also declined significantly. First time in FY11 WPI showed deflation of 1.6 percent on MoM basis during May 2011 compared to inflation of 2.3 percent in the previous month. This month's fall in WPI was highest during the last 28 months. This (MoM basis) decline was contributed by both the food and the non-food groups but share of non-food group was more pronounced on the back of historic (MoM) fall (15.0 percent) in the prices of *raw materials* (See **Figure 3.4**). It was largely due to decline in international commodity prices; particularly cotton prices (see **Table 5.1**).

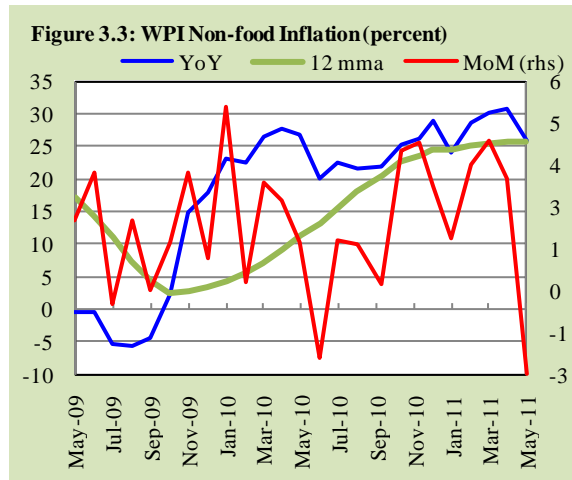


WPI food inflation (YoY) declined to 19.0 percent in May 2011 compared to 19.4 percent in the previous month and 14.4 percent in the corresponding month last year. Deflation (0.2 percent) was witnessed in WPI food group on MoM basis during the month under review compared to (0.8 percent) inflation during the last month (see **Figure 3.2**).

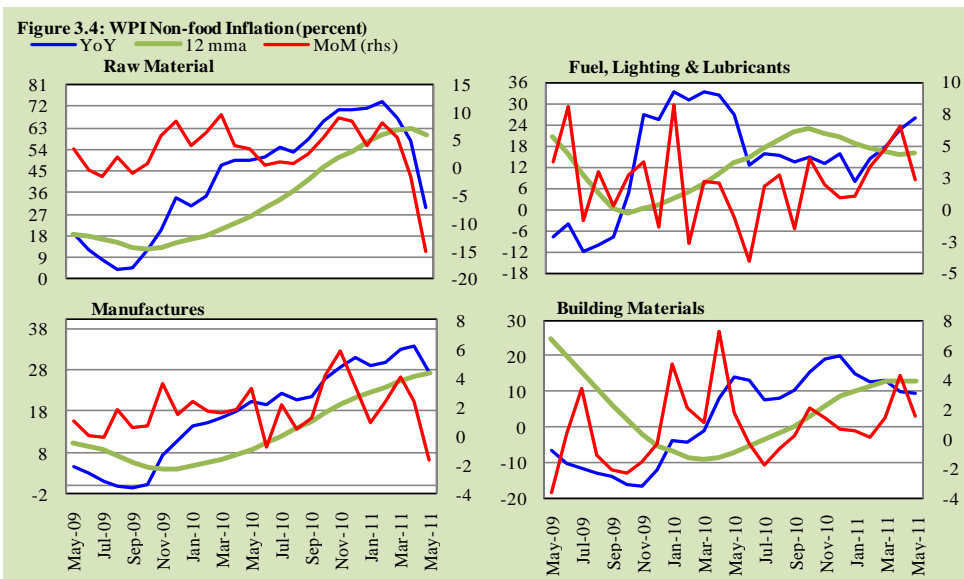
WPI non-food inflation (YoY) was recorded at 25.8 percent during May 2011 compared to 30.9 percent in April 2011 and 26.9 percent during the same month in

2010. On MoM basis, WPI non-food prices fell by 2.5 percent during the reviewed month compared to a rise of 3.3 percent during the previous month (see **Figure 3.3**).

Despite a significant increase in (YoY) inflation (of 3.6 percentage points) in *fuel lighting & lubricants* sub-group, overall non-food WPI inflation fell (by 5.1 percentage points) in the month under review on the back of lower (YoY) inflation in other three sub-groups compared to the previous month – in particular, in *raw materials* subgroup for which it fell from 57.6 percent to 29.6 percent (on the back of 25.0 percent MoM dip in domestic cotton prices). On MoM basis two sub-groups showed deflation while two recorded (lower) inflation during May 2011 than previous month (see **Figure 3.4**).



During May 2011, inflation (YoY) in '*fuel lighting and lubricants*' sub-group was 26.1 percent against 22.5 percent in the previous month and 26.9 percent in the

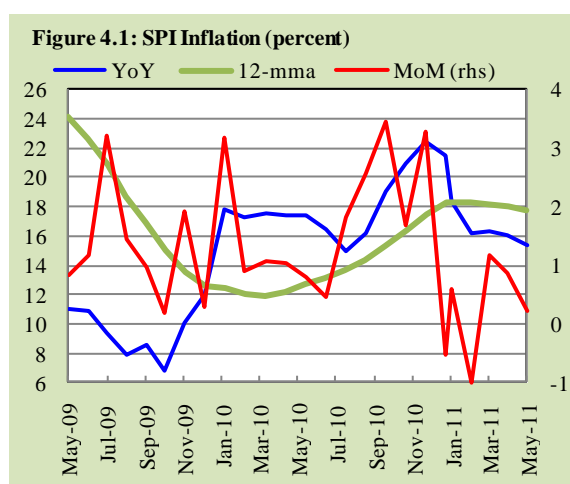


same month last year. On MoM basis, inflation in this sub-group declined to 2.3 percent from its last month level of 6.5 percent. Increase in administered prices of fuels, following rise in international crude oil prices (during April 2011), was the main factor responsible for the inflation in this sub-group during May 2011. In *building material* sub-group, inflation (YoY) declined from 9.9 percent during April 2011 to 9.6 percent during May 2011. This was also significantly lower than 13.9 percent inflation recorded in this sub group during the same month last year. On MoM basis inflation in this sub-group also declined to 1.6 percent during the reviewed month from 4.3 percent during the last month (see **Figure 3.4**).

Detailed item-wise analysis of WPI basket shows that out of 106 items, 72 items recorded double digit inflation (YoY) - out of which 26 were food items.

4. Sensitive Price Indicator

SPI inflation (YoY) in May 2011 declined from 16.1 percent in April 2011 to 15.4 percent. It was also lower than 17.4 percent SPI inflation recorded in the corresponding month last year. On MoM basis, SPI inflation witnessed a deceleration and was recorded at 0.2 percent during the month under review compared to 0.9 percent in April 2011 (see **Figure 4.1**).



Out of 53 commodities included in SPI basket, 38 (34 in May 2010) showed more than 10 percent (YoY) price increase during May 2011. On MoM basis 15 items' prices showed decline, prices for 7 items remained same, for 12 items prices increased in the range of 0 to 1 percent, and for 19 items prices rose by more than 5 percent during May 2011.

Income group-wise data suggests that incidence of SPI inflation (YoY), during May 2011, was higher on the lowest and lower middle income groups compared to upper middle and the highest income groups (see **Table 4.1**).

Table 4.1 : Income Group-wise SPI Inflation (percent)

	May-10		Apr-11		May-11	
	YoY	MoM	YoY	MoM	YoY	MoM
Up to Rs. 3000	15.2	-0.1	17.0	0.5	16.7	-0.3
Rs. 3001-5000	15.2	-0.1	16.2	0.5	15.9	-0.3
Rs. 5000-12000	15.9	0.2	15.5	0.4	15.0	-0.2
Above Rs. 12000	18.7	1.4	15.7	1.2	14.8	0.6
All income groups	17.4	0.8	16.1	0.9	15.4	0.2

5 Global Commodity Prices

A deflation was seen (on MoM basis) in May 2011 after 10 months of inflation in global commodity prices. IMF commodity price index (overall) declined by 5.0 percent in May 2011 as against 4.6 percent rise in the previous month. There were decreases in all major price indices (on MoM basis) with the exception of beverages sub-group which rose by 1.6 percent in the month under review. This general decrease in global commodity prices

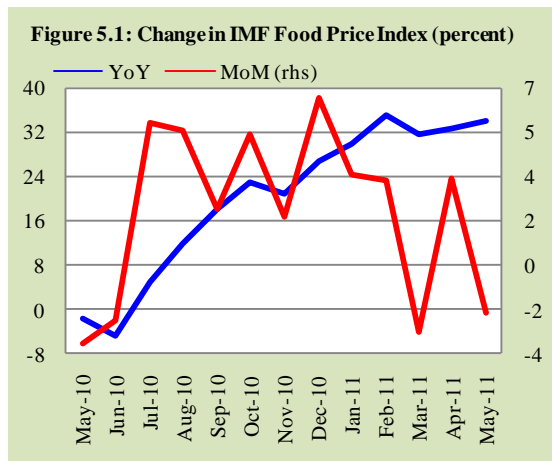
during May 2011 was due to many factors including worries of slower economic growth (in China, USA, and Japan), improved supply prospects of agricultural goods, concerns over high Greece debt, lowering of US credit rating outlook by S&P, and appreciation of US dollar against major currencies (see **Table 5.1**). On YoY basis, overall global commodity prices inflation was at 39.9 percent in May 2011 compared to 36.1 percent during April 2011 and 24.5 percent in May 2010.

Table 5.1: Monthly Changes in Major Indices (percent)

	YoY			
	May-10	Mar-11	Apr-11	May-11
Overall	24.5	38.2	36.1	39.9
Food	-1.8	31.8	32.6	34.2
Metals	44.5	56.2	41.9	50.5
Energy	29.0	36.0	36.1	40.8
Agricultural	40.5	44.8	37.0	29.3
Cotton	45.4	167.7	145.9	83.8
	MoM			
	May-10	Mar-11	Apr-11	May-11
Overall	-7.5	5.0	4.6	-5.0
Food	-3.1	-2.6	3.4	-1.9
Metals	-9.8	-4.7	2.4	-4.3
Energy	-8.8	9.4	6.1	-5.7
Agricultural	-2.1	6.6	-1.0	-7.6
Cotton	2.3	7.7	-5.7	-23.6

Food Group

On MoM basis, food group recorded 1.9 percent deflation in the month under review in contrast to 3.4 percent inflation during the previous month (see **Figure 5.1**). The deflation in food group was mainly driven by the fall in the prices of sugar, corn, meat, and soybean oil in May 2011. Sugar prices continued a downward trend since the start of 2011. Sugar prices USD/pound² plummeted almost one third from 31.1 in December 2010 to 21.9 in the month under review (see **Figure 5.2**). The significant decline in sugar prices was due to prospect of large surplus in the season of 2011-12, upward revision in



² USD/pound means US cents per pound

Brazilian sugar production, 24 percent higher production in India during Oct 2010-Apr 2011 and lower demand from China - the world largest consumer. Some ease was observed in the wheat price inflation on MoM basis during May 2011 when its price rose by 5.4 percent (or by US\$ 18.2, to US\$/MT 354.5) compared to increase of 6.2 percent a month earlier. This ease was mainly due to the decision of Russia and Ukraine to lift the ban from wheat export effective July 1, 2011, good prospects of wheat harvest in Australia, and improved weather conditions in Germany and France. However, on YoY basis wheat prices recorded 95.4 percent increase during May 2011 - highest YoY wheat price inflation since April 2008 (see **Figure 5.3**). Overall (YoY) food price inflation continued its upward trend (since March 2011) and reached 34.2 percent during May 2011 compared to 32.6 percent a month earlier (see **Figure 5.1**).

Figure 5.2 Monthly Sugar Prices Trend (USd/pound)

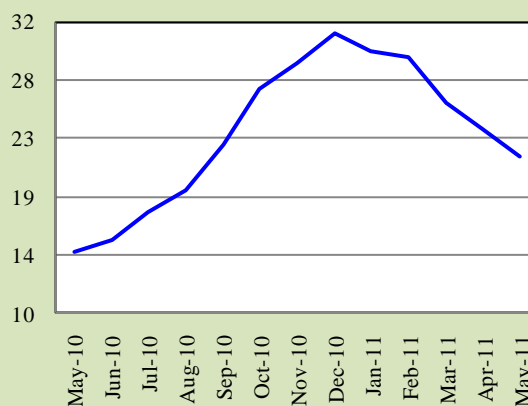
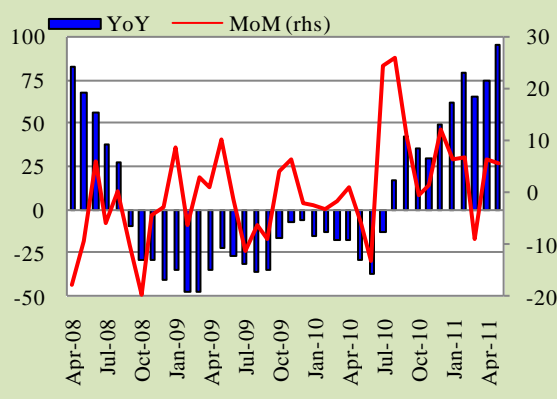


Figure 5.3: Monthly Changes in Wheat Prices (percent)

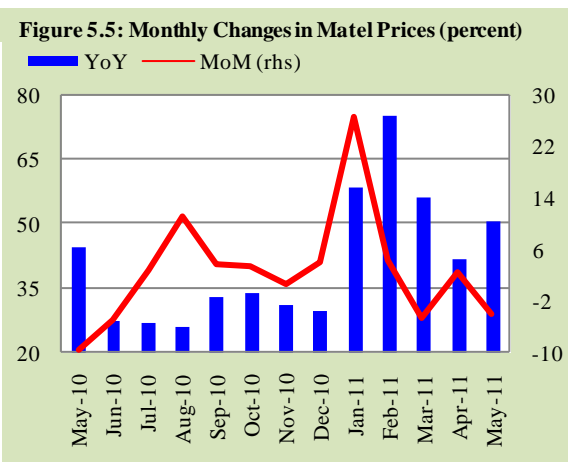
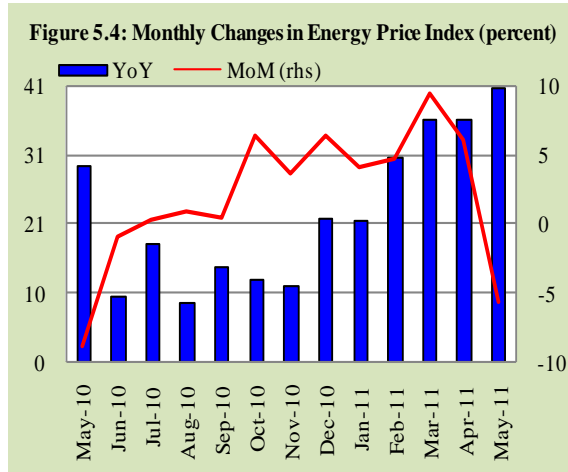


Non-food group

Within the non-food group, energy prices index declined in May 2011 and registered 5.7 percent deflation on MoM basis in the month under review after ten months of inflationary behaviour. The current month's deflation was mainly shared by significant decline in the cotton and crude oil prices (see **Table 5.1**). Cotton prices plummeted by 23.6 percent during May 2011 over April 2011. Crude oil prices were dropped by 7.0 percent on MoM basis in the reviewed month. Oil price

volatility³ surged in May 2011 compared to the last couple of months. Weak economic data from Europe & the United States, unexpected fall in German industrial production, ending of the QE2 in June 2011, expectation of increase in the oil production in OPEC countries were the main factors behind the fall in the crude oil prices in the month under review. However, YoY inflation in energy

prices continued its upward trend (since January 2011) and reached 40.8 percent in May 2011 - highest during the last thirteen months (see **Figure 5.4**). The surge in YoY inflation in energy was attributed by all components of this sub-group - crude oil, coal and natural gas. Crude oil prices surged by 42.8 percent (on YoY basis) during May 2011. This acceleration was not only 4.6 percentage points higher than the (YoY) inflation experienced during the previous month but



³ Volatility is measured by the month-wise standard deviation of the daily (ICE Brent, Arabian Light and Dubai) crude oil prices as obtained from Bloomberg. The standard deviations of various crude oil prices were in the range of 3.3-4.7 during May 2011 compared to the same in the range of 1.7-2.3 during April 2011 and 1.7-2.4 during March 2011.

also 12.3 percentage points higher than the (YoY) rise occurred during the corresponding month of preceding year.

Among non-food sub-groups, (YoY) inflation in metals prices remained high and rose to 50.5 percent in May 2011 compared to 41.9 percent in the previous month (see **Figure 5.5**). On MoM basis, metals prices tumbled by 4.3 percent in the reviewed month as against a rise of 2.4 percent in April 2011. The decline in metals prices came from all base metals including aluminum, copper, nickel, zinc, and tin on the back of slowing demand from China, Japan & USA, (monetary) policy tightening in China, and swelling inventories of most of these metals.

Annexure A

	Weights	MoM change			YoY change		
		May-10	Apr-11	May-11	May-10	Apr-11	May-11
I. Food Group	40.3	0.0	1.4	-1.1	14.8	17.2	15.9
II. Non-Food Group	59.7	0.1	1.8	1.4	11.7	9.5	11.0
Apparel, textile, etc.	6.1	1.3	2.0	1.8	8.8	13.2	13.7
House rent	23.4	0.5	0.9	1.0	10.5	7.0	7.5
Fuel & lighting	7.3	-0.8	0.7	0.8	15.8	10.3	12.1
Household furniture & equipment	3.3	0.8	1.0	1.0	6.2	11.7	11.9
Transport & communication	7.3	-2.1	5.1	3.3	18.7	9.8	15.9
Recreation & entertainment	0.8	0.0	0.2	0.1	14.5	0.6	0.8
Education	3.5	1.0	3.1	1.2	8.4	5.6	5.7
Cleaning, laundry, etc.	5.9	0.6	2.6	1.6	9.2	16.0	17.2
Medicare	2.1	0.7	2.5	2.3	9.2	16.3	18.1
Headline	100.0	0.1	1.6	0.2	13.1	13.0	13.2

Groups	% Changes	Total Number of Items		No. of Items in each Inflation Range							
				Decrease or no change (0% or less)		Subdued increase (> 0% but < 5%)		Moderate increase (> 5% but < 10%)		Double digit increase (over 10%)	
		May-10	May-11	May-10	May-11	May-10	May-11	May-10	May-11	May-10	May-11
I. Food Group	15.9	110	110	21	9	11	5	16	16	62	80
II. Non-Food Group	11.0	250	250	53	51	52	36	66	38	79	125
Apparel, textile, etc.	13.7	42	42	8	5	2	1	18	7	14	29
House rent	7.5	1	1					1	1		
Fuel & lighting	12.1	15	15	1	5	1		0		13	9
Household furniture & equipt	11.9	44	44	1	1	16	2	20	12	7	29
Transport & communication	15.9	43	43	15	7	6	7	8	6	14	23
Recreation & entertainment	0.8	16	16	3	8	6	7	2	0	5	1
Education	5.7	24	24	4	5	5	11	7	5	8	3
Cleaning, laundry, etc.	17.2	36	36	8	5	8	3	10	6	10	22
Medicines	18.1	29	29	13	15	8	5	1		7	9
Overall	13.2	360	360	74	60	63	41	82	54	141	205

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

Table A3: Top Ten Contributors to YoY CPI Inflation in May 2011					
Items / Contributors	Weights	YoY change		Weighted Contribution	
		May-10	May-11		
A. Ranked by Weighted Contribution					
1	House Rent Index	23.43	12.73	7.50	12.61
2	Milk Fresh	6.66	16.97	20.54	12.09
3	Vegetable Ghee	2.67	8.87	38.08	8.57
4	Meat	2.70	24.93	22.59	7.04
5	Fresh Fruits	1.62	15.48	40.85	6.00
6	Petrol	1.73	22.63	28.05	3.72
7	Electricity	4.37	19.05	12.32	3.45
8	Transport Fare/Charges	2.12	12.62	14.55	2.97
9	Readymade Food	1.68	13.06	18.73	2.75
10	Spices	0.60	15.76	56.51	2.72
Total		47.58			61.92
B. Ranked by Percentage Change					
1	Spices	0.60	15.76	56.51	2.72
2	Fresh Fruits	1.62	15.48	40.85	6.00
3	Pulse Moong	0.22	108.67	39.94	1.00
4	Vegetable Ghee	2.67	8.87	38.08	8.57
5	Jewellery	0.39	32.88	36.35	2.10
6	Cooking Oil	0.69	6.23	32.71	1.78
7	Kerosene	0.14	13.79	31.73	0.68
8	Diesel	0.21	35.97	28.34	0.96
9	Petrol	1.73	22.63	28.05	3.72
10	Toilet Soap	0.74	0.00	27.27	1.28
Total		9.00			28.80
C. Ranked by Weights					
1	House Rent Index	23.43	12.73	7.50	12.61
2	Milk Fresh	6.66	16.97	20.54	12.09
3	Wheat Flour	5.11	-0.04	4.58	2.24
4	Electricity	4.37	19.05	12.32	3.45
5	Bakery & Confectionary	2.98	4.16	7.31	1.12
6	Meat	2.70	24.93	22.59	7.04
7	Vegetable Ghee	2.67	8.87	38.08	8.57
8	Tuition Fees	2.36	7.89	6.79	1.03
9	Transport Fare/Charges	2.12	12.62	14.55	2.97
10	Natural Gas	2.05	16.91	7.39	1.64
Total		54.45			52.76
Note: Weighted contribution is estimated by multiplying the weights by the price change of an item; this is then reported as a share in YoY change in CPI, which is 13.2 percent in May 2011.					

Table A4: Distribution of Price Changes (YoY)- Selected CPI Items, May 2011				
Groups	Decrease or no change	Subdued increase (upto 5%)	Moderate increase (5 to 10%)	Increase of over 10%
Food Group	Onion, Tomatoes Brinjal, Pulse Masoor, Ginger Chicken, Pulse Mash Toffee, Chowkelate Candy	Maida, Wheat Flour, Wheat, Coffee-Nescafe 75 grams, Cigarettes Gold Leaf	Eggs, Salt-Powdered Vinegar Synthetic, Garlic, Squash- Mitchelles, Vermicelli Cigarettes K-2, Cigarettes Capstan, Lactogen 400 grams, Coriander Seed, Powder National, Curry Powder National 200 grams, Sugar	Cardamom Large Loose, Chillies Powd.National 200 grams, Kinnu, Aloo Bukhara, Apple Vegetable Ghee, Pulse Moong, Coconut Dry, Mango Kalmi, Watermelon , Muskmelon, Cooking Oil
Apparel & Textile	Gents Shoes Paul Bata, Gents Sandal Bata, Child Shoe Power Lite Bata	Pullover Gents Oxford/Bonanza	Ladies Sandal Bata Pullover Ladies Oxford/Bonanza Tailoring Coat-Pant Suit	Dopatta Georgette Lungi/Dhoti(Cotton) Long Cloth
House Rent Index	House Rent Index			
Fuel & Lighting	Match Box Small Gas Charges Upto 3.3719 mmbtu Gas Charges 3.3719 - 6.7438 mmbtu		Tube Light Philips 40 watts	Gas Cylinder standard size, Kerosene Oil, Firewood Whole Bulb Philips 100-watts
Household Furniture & Equipment	Washing Machine Singer	Carpet Plain Wall Clock quartz	Electric Juicer For apple, Almirah (Steel) Dinning Table 6 chairs	Towel(3'x2'), Pressure Cooker 4 liter, Marriage Hall with furniture
Transport & Communication	Platform ticket Postal envelope domestic, Postal registration charges Aerogram for Saudi Arabia	Air fare economy class, Car tax for 800cc to 1300cc Motorcycle Honda Cd- 70, Suzuki fare Maximum within city	Car Suzuki 800 cc Car service charges Motor Cycle service charges, Bus fare maximum within city	High Speed Diesel HSD, Petrol Super A/C Bus fare outside city, Tyre Car with tube- General
Recreation & Entertainment	Video Game Sega 16 byte, Daily "Dawn" Daily "Jang"	VCP Panasonic, T.V. 20" Colored, Radio with C.player-National		Dry cell 1.5 volt
Education	English book class V1, Compack C.D. (TDK/Imation) English book Ist year complete set	Govt. Medical college fee MBBS, Govt. Engineering college fee I year, Maths book Ist year	Fountain Pen, Maths book class IX or X School fee primary Engineering / Medical	Exercise.Book, Govt. University fee Msc, Pencil Goldfish/Deer
Cleaning & Laundry	Surf (medium) 160 grams, Robin Blue (35 grams), Toothpaste Macklines 70 grams, Toothpowder Dentonic 90 grams	Washing powder 1000 grams, Facecream Ponds (medium) Disposable Razor	Perfume Medora/Broa Shampoo Plain Medora 200 ml., Brylcreem 210 ml., Cleanser Powder Vim 1000 grams	Silver Tezabi 24 ct Blade Treet Ordinary Gold Tezabi 24 ct Toilet Soap Lux 95 grams
Medicare	Septran tablets Sancos syrup (50 ml.) Calpol syrup 60 ml.	Lederplex syrup Daonil tab. 5 mg. Ventolin tab. 2mg.		Galxos-D (450 grams) O.R.S. (Nimcol) Gripe-Water Woodwards

Table A5: City-wise Inflation by Income Groups, May 2011													
		Upto Rs:3000						Rs 3001-5000					
		General		Food		Non-Food		General		Food		Non-Food	
		MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY
1	Lahore	0.2	10.4	-0.3	11.0	0.9	9.4	0.2	10.1	-0.2	10.9	0.8	8.9
2	Faisalabad	-0.8	10.8	-2.4	11.4	1.7	9.8	-1.2	11.3	-3.0	11.5	1.2	11.2
3	Rawalpindi	0.2	12.3	-0.9	15.3	1.9	8.0	-0.1	11.5	-1.3	14.1	1.6	8.3
4	Multan	-0.2	14.3	-1.7	14.9	1.9	13.5	-0.5	13.1	-2.0	14.0	1.4	12.0
5	Gujranwala	0.0	11.5	-1.0	12.9	1.3	9.5	-0.3	11.1	-1.4	12.5	1.1	9.3
6	Islamabad	0.1	11.9	-1.6	16.1	2.5	6.5	-0.1	11.7	-1.8	15.2	2.2	7.4
7	Sargodha	-1.0	14.4	-2.6	15.7	1.1	12.8	-0.9	14.4	-2.4	15.1	1.1	13.6
8	Sialkot	-0.3	10.0	-1.1	11.2	0.8	8.5	-0.6	9.9	-1.6	11.1	0.9	8.3
9	Bahawalpur	-1.9	16.0	-4.1	15.7	1.1	16.5	-1.7	15.7	-3.8	15.6	1.1	15.8
10	Karachi	-0.2	12.6	-0.8	14.4	0.7	10.3	-0.3	11.5	-1.0	12.7	0.6	10.1
11	Hyderabad	-0.1	14.1	-0.9	14.8	1.1	13.1	0.0	14.3	-0.8	15.6	1.0	12.5
12	Sukkur	1.0	15.8	1.1	20.9	0.9	9.1	0.7	14.9	0.7	19.3	0.8	9.7
13	Larkana	1.2	17.8	0.7	22.8	1.8	11.2	1.1	18.1	0.6	22.8	1.7	12.4
14	Peshawar	0.1	16.4	-1.5	16.2	2.2	16.6	-0.3	15.8	-2.1	15.4	1.8	16.3
15	Bannu	-0.7	14.0	-2.2	13.1	1.2	15.3	-1.2	13.7	-3.1	12.0	1.2	15.8
16	Quetta	0.8	14.7	-1.1	15.5	3.8	13.5	0.5	13.2	-1.4	15.3	3.0	10.6
17	Khuzdar	1.8	17.0	-2.0	15.3	7.1	19.1	1.5	16.9	-1.9	15.2	5.9	19.1
		Rs 5001-12000						above Rs 12000					
		General		Food		Non-Food		General		Food		Non-Food	
		MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY	MoM	YoY
1	Lahore	0.4	9.3	0.2	11.0	0.7	7.3	1.0	9.5	1.1	12.0	0.9	7.8
2	Faisalabad	-0.9	11.0	-2.6	12.2	1.0	9.7	0.0	10.7	-1.6	12.9	1.1	9.3
3	Rawalpindi	0.2	11.3	-1.0	14.4	1.4	8.1	0.7	12.9	-0.6	15.6	1.5	11.3
4	Multan	-0.3	12.0	-1.7	13.8	1.3	10.1	0.2	11.8	-1.6	14.5	1.3	10.1
5	Gujranwala	0.1	10.9	-0.7	13.5	1.0	8.3	0.7	11.2	0.2	15.2	0.9	8.7
6	Islamabad	0.0	10.6	-1.8	14.5	2.0	6.7	0.7	11.7	-0.9	15.7	1.8	9.4
7	Sargodha	-0.7	14.8	-2.1	15.1	0.8	14.4	-0.7	16.6	-3.0	17.3	0.8	16.1
8	Sialkot	-0.4	9.2	-1.4	10.5	0.8	7.8	0.1	9.5	-0.9	10.5	0.8	8.8
9	Bahawalpur	-1.0	14.8	-3.1	16.5	1.3	12.9	-0.4	14.7	-3.1	17.6	1.5	12.9
10	Karachi	-0.3	10.9	-1.1	12.6	0.6	9.2	0.1	10.4	-1.2	14.3	1.0	8.0
11	Hyderabad	0.3	14.0	-0.4	15.8	0.9	12.1	0.2	14.2	-0.8	16.3	0.9	12.9
12	Sukkur	1.0	14.5	1.1	19.2	0.9	9.9	1.0	14.2	1.1	18.5	1.0	11.7
13	Larkana	1.1	17.2	0.7	22.7	1.6	11.8	0.5	17.9	-0.3	23.7	1.0	14.4
14	Peshawar	-0.2	14.5	-2.1	15.5	1.8	13.5	0.3	14.3	-1.9	16.7	1.7	12.9
15	Bannu	-1.2	14.3	-3.5	12.1	1.2	16.5	-1.7	14.5	-4.8	13.4	0.2	15.2
16	Quetta	0.8	12.8	-1.0	15.6	2.9	9.9	1.0	13.4	-0.3	16.8	1.9	11.2
17	Khuzdar	1.7	14.6	-1.4	13.0	5.1	16.2	2.1	13.1	-1.8	12.1	4.6	13.6

Table A6: City-wise Inflation in CPI (YoY) May 2011

	High inflation cities				Low inflation cities		
	General	Food	Non-food		General	Food	Non-food
D.I.Khan	19.1	23.7	15.3	Quetta	13.1	16.1	10.5
Bahawalnagar	18.7	18.1	19.2	Abbotabad	12.9	15.7	10.6
Larkana	17.5	22.9	13.1	Shahdadpur	12.7	14.0	11.6
Khuzdar	17.2	17.0	17.3	Multan	12.2	14.0	10.5
Samundari	17.0	20.9	13.9	Rawalpindi	12.1	14.9	9.9
Jhang	16.9	16.6	17.1	Islamabad	11.6	15.4	8.5
Loralai&Cantt	16.3	19.2	14.1	Gujranwala	11.0	13.7	8.9
Kunri	16.2	17.5	15.2	Faisalabad	10.9	12.4	9.5
Mardan	15.9	17.1	15.0	Karachi	10.7	13.3	8.6
Okara	15.8	18.7	13.4	Attock	10.4	12.2	9.0
Sargodha	15.2	15.6	14.8	Lahore	9.4	11.4	7.6
Bahawalpur	15.0	16.5	13.8	Siakot	9.4	10.6	8.4
Turbat	14.7	17.3	12.7				
Peshawar	14.6	16.0	13.4				
Sukkur	14.5	19.1	10.9				
Bannu	14.3	12.5	15.7				
Mirpur Khas	14.2	16.7	12.3				
Hyderabad	14.0	15.9	12.5				
Mianwali	13.9	12.9	14.8				
Nawabshah	13.6	14.7	12.7				
Jehlum	13.5	15.7	11.8				
Vehari	13.2	12.4	13.9				
D.G. Khan	13.2	15.3	11.4				

Note: High inflation refers to above average inflation, and low inflation refers to below average inflation

Table A7 : Income Group-wise Inflation (percent)

	MoM			YoY		
	May-10	Apr-11	May-11	May-10	Apr-11	May-11
Up to Rs. 3000						
General	-0.2	1.3	-0.2	12.7	14.5	14.6
Food	-0.4	1.0	-1.4	14.3	16.8	15.6
Non-food	0.2	1.7	1.6	10.7	11.6	13.1
Rs. 3001-5000						
General	-0.1	1.3	-0.2	12.7	14.1	14.1
Food	-0.4	1.0	-1.4	14.3	16.7	15.4
Non-food	0.2	1.7	1.5	10.9	11.0	12.4
Rs. 5000-12000						
General	0.1	1.4	0.0	12.9	13.3	13.3
Food	-0.1	1.1	-1.2	14.7	16.9	15.6
Non-food	0.2	1.7	1.4	11.1	9.6	10.9
Above Rs. 12000						
General	0.1	2.0	0.5	13.4	12.6	13.1
Food	0.4	1.9	-0.9	15.2	18.0	16.5
Non-food	-0.1	2.0	1.5	12.3	9.3	11.0
All income groups						
General	0.1	1.6	0.2	13.1	13.0	13.2
Food	0.0	1.4	-1.1	14.8	17.2	15.9
Non-food	0.1	1.8	1.4	11.7	9.5	11.0

Table A8: SPI Item-wise Price Movements					
S.No	Items	Unit	Prices	Percentage change	
			May-11	YoY	Monthly
1	Wheat	Kg.	24.4	1.9	-6.9
2	Wheat flour average qlt.	Kg.	28.8	4.7	-4.9
3	Rice basmti.broken	Kg.	54.2	20.6	0.5
4	Rice irri-6	Kg.	42.2	22.0	0.9
5	Masur pulse washed	Kg.	112.4	-7.8	-1.9
6	Moong pulse washed	Kg.	139.5	35.3	-1.0
7	Mash pulse washed	Kg.	156.7	-4.2	-1.0
8	Gram pulse washed	Kg.	69.1	19.4	-2.3
9	Beef	Kg.	226.6	18.6	0.4
10	Mutton	Kg.	439.8	22.3	0.8
11	Egg hen (farm)	Doz.	60.0	4.7	-8.2
12	Bread plain	Each	29.8	9.3	4.6
13	Sugar	Kg.	65.5	7.6	-1.7
14	Gur	Kg.	81.3	14.0	1.1
15	Milk fresh	Ltr	55.1	22.6	4.5
16	Milk powdered nido	400g	222.5	11.4	11.3
17	Curd	Kg.	63.7	20.7	4.8
18	Veg.ghee tin	2.5kg	495.0	33.3	1.2
19	Veg.ghee loose	Kg.	164.7	42.3	-0.4
20	Mustard oil	Kg.	167.6	23.3	-0.4
21	Cooking oil	2.5ltr	495.0	33.3	1.2
22	Potatoes	Kg.	26.5	18.5	18.1
23	Onions	Kg.	16.0	-40.6	-18.5
24	Tomatoes	Kg.	16.9	-37.8	-39.2
25	Bananas	Doz.	58.4	28.8	7.4
26	Salt powdered	Kg.	7.6	12.4	1.1
27	Red chillies(powder)	Kg.	258.0	53.7	-0.7
28	Garlic	Kg.	160.9	2.2	-12.3
29	Tea packet	250g	151.3	16.2	0.0
30	Tea (prepared)	Cup	13.6	25.8	0.4
31	Cooked beef plate	Each	56.6	18.6	1.3
32	Cooked dal plate	Each	35.8	19.5	0.2
33	Cigarettes k-2	10's	13.7	5.2	0.2
34	Coarse latha	Mtr.	68.6	36.0	0.4
35	Lawn (avg.+s.qlty)	Mtr.	123.6	17.6	2.2
36	Voil printed	Mtr.	63.7	21.6	1.2
37	Shirting	Mtr.	96.8	15.8	0.8
38	Sandel gents Bata	Pair	499.0	0.0	0.0
39	Sandel ladies Bata	Pair	399.0	5.3	0.0
40	Chappal spng. Bata	Pair	139.0	7.8	0.0
41	Kerosene	Litr	100.8	25.5	6.1
42	Firewood	40kg	389.8	25.3	0.5
43	Elec. Bulb 60-wats	Each	24.4	10.8	0.7
44	Match box	Each	1.0	1.0	1.0
45	Washing soap	Cake	16.8	26.5	1.5
46	Bath soap lifebuoy	Cake	28.1	27.8	0.4
47	Chicken (farm)	Kg.	125.0	-1.7	-5.2
48	Gas chrg. All clb. Comb	mmbtu	337.2	0.0	0.0
49	L.P.G.(cylinder 11kg.)	Each	1261.4	56.3	4.0
50	Elec.chrg.all slabs comb	per unit	9.1	12.7	0.0
51	Petrol	Ltr	89.2	17.6	5.7
52	Diesel	Ltr	98.1	26.4	4.8
53	Telephone local	Call	3.6	0.0	0.0
Maximum				56.3	18.1
Median				17.6	0.4
Minimum				-40.6	-39.2

Table A9: Distribution of Price Change (YoY) - WPI Items: May 2011

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

Table A10: Consumer Price Index Numbers by Major Groups and Selected Commodities				
Item and Specification	Weights	Index		
		May-10	Apr-11	May-11
General	100.00	223.58	252.58	253.17
Food & Beverages.	40.34	252.62	296.02	292.73
1 Wheat	0.48	278.49	312.73	283.35
2 Wheat Flour	5.11	283.67	311.87	296.66
3 Maida	0.11	272.71	284.23	275.73
4 Besan	0.13	205.91	260.83	253.48
5 Rice	1.34	279.92	326.06	326.43
6 Pulse Masoor	0.22	338.03	323.80	311.34
7 Pulse Moong	0.22	333.23	473.63	466.32
8 Pulse Mash	0.20	358.95	356.67	349.78
9 Pulse Gram	0.43	198.24	243.42	235.77
10 Gram Whole	0.15	207.91	247.62	245.27
11 Mustard Oil	0.05	250.22	302.63	301.97
12 Cooking Oil	0.69	234.30	305.82	310.94
13 Vegetable Ghee	2.67	249.79	343.96	344.90
14 Sugar	1.95	222.58	242.94	238.22
15 Gur	0.07	271.29	313.20	316.46
16 Tea	1.26	205.37	233.48	233.97
17 Milk Fresh	6.66	261.55	304.97	315.26
18 Milk Powder	0.11	224.16	243.80	258.19
19 Milk Products	0.56	238.01	275.23	285.89
20 Honey	0.04	217.88	275.14	275.98
21 Cereals	0.09	255.13	278.93	283.94
22 Jam, Tomato, Pickles & Vinegar	0.25	200.85	221.40	225.85
23 Beverages	0.73	199.41	218.31	226.31
24 Condiments	0.34	247.61	270.99	278.39
25 Spices	0.60	236.70	368.99	370.47
26 dty Fruit	0.28	347.07	401.59	404.57
27 Bakery & Confectionary	2.98	151.26	160.57	162.32
28 Cigarettes	0.95	226.25	239.91	239.91
29 Betel Leaves & Nuts	0.19	202.16	227.55	231.44
30 Rrdymade Food	1.68	258.30	304.09	306.68
31 Sweetmeat & Nimco	0.38	263.75	323.45	325.30
32 Fish	0.27	215.80	253.79	250.09
33 Meat	2.70	341.81	414.80	419.02
34 Chicken Farm	0.92	249.24	261.01	239.52
35 Eggs	0.41	211.70	249.24	230.93
36 Potatoes	0.60	238.40	235.18	274.25
37 Onions	0.65	276.41	196.26	159.52
38 Tomatoes	0.51	154.45	200.36	109.78
39 Vegetables	1.77	265.77	335.46	299.17
40 Fresh Fruits	1.62	268.91	378.65	378.77
Apparel, Textile & Footwear.	6.10	169.75	189.61	193.07
41 Cotton Cloth	1.62	179.16	206.80	214.36
42 Silk, Linen, Woolen/Cloth	0.58	173.01	199.06	202.32
43 Tailoring Charges	0.86	185.91	210.70	212.38
44 Hosiery	0.15	183.77	213.29	218.39
45 Rrdymade Garments	1.20	154.28	173.21	176.86
46 Woolen Rrdymade Garments	0.15	200.34	224.85	225.32
47 Footwear	1.53	157.28	163.12	163.30
House Rent.	23.43	212.37	226.06	228.29
48 House Rent Index (Combined)	23.43	212.37	226.06	228.29

(continued)

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Table A10: Consumer Price Index Numbers by Major Groups and Selected Commodities

Item and Specification	Weights	Index		
		May-10	Apr-11	May-11
Fuel And Lighting.	7.29	240.78	267.73	269.88
49 Kerosene	0.14	464.64	577.96	612.08
50 Firewood	0.48	345.23	416.01	426.58
51 Match Box	0.13	200.00	200.00	200.00
52 Bulb & Tube	0.13	132.65	152.25	152.94
53 Electricity	4.37	189.54	212.90	212.90
54 Natural Gas	2.05	320.41	341.22	344.09
H.Hold. Furniture & Equipment Etc.	3.29	174.72	193.61	195.48
55 Utensils	0.37	160.35	174.88	178.10
56 Plastic Products	0.11	214.03	245.21	250.62
57 Suitcase	0.05	170.00	191.49	193.83
58 House Hold Equipments	0.10	163.48	182.06	185.52
59 Furniture (Rrdy Made)	0.31	189.52	208.78	211.10
60 Furnishing	0.64	166.38	187.80	189.42
61 Elect. Iron Fans & Washing Machine	0.19	167.87	181.00	182.80
62 Sewing Machine, Clock And Needles	0.13	151.50	167.17	170.94
63 Refrigerator & Air conditioner	0.18	136.28	151.59	153.93
64 Marriage Hall	0.04	211.69	251.69	253.48
65 House Hold Servant	1.19	185.27	203.91	204.65
Transport & Communication.	7.32	219.79	246.59	254.81
66 Petrol	1.73	227.47	274.94	291.27
67 Diesel	0.21	481.88	589.76	618.45
68 CNG . Filling Charges	0.16	226.80	239.42	243.54
69 Service Charges	0.38	183.68	198.57	200.91
70 Vehicles	0.26	136.52	149.11	150.65
71 Tyre & Tube	0.28	173.15	208.19	210.88
72 Transport Fare/Charges	2.12	284.62	315.36	326.02
73 Train Fare	0.15	253.24	287.05	287.05
74 Air Fare	0.10	365.51	369.79	369.79
75 Communication	1.93	127.83	127.96	128.28
Recreation & Entertainment.	0.83	139.17	140.01	140.22
76 Recreation	0.34	142.98	142.98	142.98
77 Entertainment	0.49	136.50	137.94	138.29
Education.	3.45	193.18	201.93	204.28
78 Tuition Fees	2.36	189.33	199.53	202.19
79 Stationery	0.35	188.17	202.86	204.97
80 Text Books	0.69	217.09	218.49	220.00
81 Computer & Allied Products	0.05	86.10	86.67	87.05
Cleaning Laundry & Per. Appearance.	5.88	186.02	214.65	218.00
82 Washing Soap & Detergent	1.55	170.00	187.94	189.03
83 Toilet Soap	0.74	186.50	237.36	237.36
84 Tooth Paste	0.40	119.13	122.13	122.55
85 Shaving Articles	0.35	155.00	169.94	171.41
86 Cosmetics	1.43	168.61	180.15	182.60
87 Watches	0.06	140.04	155.62	157.07
88 Jewellery	0.39	434.17	568.85	591.97
89 Laundry Charges	0.22	196.56	231.04	232.67
90 Hair Cut & Beauty Parlour Charges	0.73	172.02	196.89	202.71
Medicare.	2.07	164.47	189.81	194.27
91 Drugs & Medicares	1.08	134.25	148.23	153.68
92 Doctor's Fee	1.00	197.04	234.63	238.01

Table A11: Wholesale Price Index Numbers by major Groups and Selected Commodities				
Item and Specifications	May-10	Mar-11	Apr-11	May-11
General	243.98	297.86	304.58	299.85
Food	248.81	294.48	296.72	296.11
1 Wheat	277.57	321.74	313.76	283.76
2 Wheat flour	277.33	305.58	300.85	285.43
3 Maida	272.00	285.92	285.22	277.83
4 Besan	188.04	239.29	234.61	225.80
5 Rice	313.62	388.71	393.72	395.80
6 Maize	265.08	392.20	391.76	383.09
7 Jowar	311.66	386.24	385.88	329.32
8 Bajra	222.73	287.44	292.89	295.61
9 Beans	294.58	317.30	319.89	316.63
10 Gram whole	222.92	260.23	262.72	263.29
11 Gram split	181.05	233.79	228.57	221.45
12 Masoor	321.10	300.71	292.85	281.91
13 Mash	292.63	316.89	315.37	304.05
14 Moong	352.10	484.84	491.04	487.42
15 Potatoes	232.22	213.93	248.45	290.01
16 Onions	310.49	247.36	191.58	147.43
17 Tomatoes	127.42	265.61	215.88	112.95
18 Vegetables	286.67	299.41	320.68	299.12
19 Fresh fruits	198.09	227.19	255.16	244.27
20 Dry fruits	256.49	332.05	331.55	326.80
21 Fresh milk	218.78	248.98	252.98	261.43
22 Powdered milk	224.88	245.04	245.09	245.41
23 Milk food	180.61	203.69	207.84	216.92
24 Vegetable ghee	276.71	399.78	395.72	392.87
25 Mustard & rapeseed oil	277.57	376.85	377.17	376.60
26 Cotton seed oil	285.42	380.91	386.62	386.30
27 Cooking oil	224.08	286.52	293.64	301.10
28 Oil cakes	324.33	384.05	393.95	391.87
29 Gur	264.42	281.96	279.86	283.03
30 Sugar refined	224.40	247.50	246.81	241.43
31 Chicken	261.98	281.22	273.30	253.20
32 Eggs	212.06	303.21	254.86	239.84
33 Fish	145.23	149.72	150.76	149.34
34 Meat	322.29	384.94	389.39	393.69
35 Spices	261.55	370.47	380.36	385.18
36 Condiments	303.08	311.44	313.17	314.60
37 Salt	170.39	196.00	196.00	196.00
38 Tea	171.50	194.17	195.13	195.61
39 Beverages	145.01	160.16	163.75	166.31
40 Mineral water	128.75	149.72	152.67	159.52
41 Fruit prepared/preserved	212.81	233.20	239.08	244.16
42 Vegetables prepared/preserved	187.79	212.13	215.31	217.71
43 Sugar confectionary	100.57	100.59	100.67	100.98
Raw material	295.35	458.34	450.47	382.68
44 Cotton	278.03	522.87	503.45	377.50
45 Cotton seeds	273.42	358.16	362.89	358.16
46 Mustard/rapeseeds	286.42	369.01	367.55	364.65
47 Tobacco	236.12	262.58	260.69	261.49
48 Sugar cane	499.09	594.40	601.95	601.95
49 Wool	144.29	153.70	164.33	170.95
50 Hides	138.01	154.59	156.19	157.02
51 Skins	103.92	113.06	122.98	126.49
52 Pig iron	321.93	321.93	321.93	321.93

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Table A11: Wholesale Price Index Numbers by major Groups and Selected Commodities

Item and Specifications	May-10	Mar-11	Apr-11	May-11
Fuel & light	316.79	366.57	390.47	399.37
53 Coal	141.00	160.00	160.00	160.00
54 Coke	666.22	693.98	791.13	791.13
55 Diesel oil	463.84	511.15	577.53	626.56
56 Motor sprit	224.88	249.46	272.22	288.03
57 Mobil oil	204.08	228.69	233.37	246.36
58 Furnace oil	382.95	511.39	536.84	521.19
59 Kerosine oil	444.56	505.51	571.16	609.25
60 Natural gas	256.00	256.00	256.00	256.00
61 Electricity ind. Supply tariff-b	201.01	222.49	222.49	222.49
62 Elec. Agriculture tariff-d	205.07	238.86	238.86	238.86
63 Fire wood	283.62	353.66	357.11	364.01
Manufacture	170.15	215.17	220.30	216.65
64 Sole leather	134.06	134.06	140.01	140.01
65 Chrome leather	212.23	212.23	228.63	232.07
66 Cotton yarn	178.55	271.58	267.49	239.47
67 Blended yarn	187.25	236.81	251.42	248.86
68 Nylon yarn	127.19	174.70	185.96	187.85
69 Cotton textiles	155.26	176.73	183.61	184.34
70 Hosiery	159.36	183.80	196.13	196.65
71 Silk & reyon textiles	152.07	172.28	174.29	176.71
72 Woolen textiles	143.32	148.80	149.53	149.53
73 Jute manufactures	133.49	162.85	174.73	196.39
74 Mattresses	142.61	160.17	165.50	166.67
75 Rrdy made garments	118.87	125.26	125.26	125.07
76 Utensils	149.53	159.13	160.39	160.47
77 Plastic products	144.57	164.24	168.07	168.89
78 Glass products	179.81	194.87	198.87	200.12
79 Chemicals	211.80	244.64	250.25	253.58
80 Dying materials	92.57	96.14	96.14	96.14
81 Soaps	184.22	216.05	223.03	228.46
82 Cosmetics	123.62	175.12	178.84	181.27
83 Drugs & medicines	119.40	132.18	135.67	140.73
84 Fertilizers	311.31	386.96	427.49	437.90
85 Pesticides & insecticised	150.11	171.34	184.80	191.90
86 Machinery	185.14	199.80	207.45	211.96
87 Transports	131.55	162.78	169.28	185.85
88 Tyres	219.35	229.61	243.64	259.21
89 Tubes	198.01	214.77	229.40	232.19
90 Audio-visual instruments	92.59	96.27	100.49	100.49
91 Other electrical goods	133.22	142.51	152.72	159.53
92 Cigarettes	197.49	262.35	262.35	262.35
93 Paper	105.98	114.45	114.45	117.04
94 Matches	124.26	130.85	130.85	144.89
95 Foot wear	192.15	199.97	204.94	204.94
Building material	221.07	228.81	238.63	242.36
96 Cement	126.71	135.55	135.55	136.49
97 Bricks	250.44	319.61	325.74	334.06
98 Cement blocks	170.83	172.23	175.73	179.23
99 Tiles	99.67	99.67	101.37	102.37
100 Iron bars & sheets	294.74	296.76	314.21	318.60
101 Pipe fittings	183.46	195.80	196.51	198.99
102 Timber	217.14	230.68	231.22	245.20
103 Glass sheets	177.94	188.29	191.40	191.40
104 Paints & varnishes	149.43	212.43	218.35	238.33
105 Sanitary wares	162.22	163.37	163.37	163.29
106 Wires and cables	272.09	287.17	304.05	306.76

Table A12: Price Indices - Base 2000-01=100

Period	CPI			WPI			SPI *
	Overall	Food	Non-food	Overall	Food	Non-food	
2004-05	121.98	125.69	119.47	124.14	125.03	123.50	126.52
2005-06	131.64	134.39	129.78	136.68	133.78	138.78	136.43
2006-07	141.87	148.21	137.59	146.18	145.67	146.53	149.29
2007-08	158.90	174.36	148.44	170.15	173.27	167.88	170.55
2008-09	191.90	215.69	175.82	201.10	213.54	192.04	209.29
2009-10	214.41	242.59	195.36	226.49	239.01	217.39	236.87
2009 Jan.	190.09	210.33	176.40	192.91	208.80	181.35	204.02
Feb.	191.90	211.58	178.59	194.19	210.31	182.46	206.78
Mar.	194.53	216.13	179.92	195.00	212.16	182.51	208.40
Apr.	197.28	220.46	181.61	198.28	215.69	185.61	210.85
May	197.74	220.04	182.66	201.29	217.50	189.49	212.62
Jun.	199.69	222.23	184.45	206.13	219.81	196.17	215.09
Jul	202.77	228.93	185.08	207.57	224.31	195.39	222.00
Aug	206.21	234.69	186.95	212.16	229.52	199.53	225.18
Sep	207.14	235.59	187.90	212.53	230.34	199.57	227.34
Oct	209.11	238.12	189.49	215.01	232.35	202.39	227.73
Nov	212.02	242.40	191.48	220.98	236.69	209.55	232.14
Dec	210.99	238.16	192.62	221.43	235.06	211.51	232.81
2010 Jan.	216.09	242.91	197.95	230.80	241.37	223.11	240.25
Feb	216.93	243.17	199.19	231.64	242.67	223.61	242.37
Mar	219.65	247.55	200.78	237.51	246.68	230.84	244.98
Apr	223.44	252.53	203.77	241.88	248.53	237.04	247.50
May	223.58	252.62	203.94	243.98	248.81	240.47	249.51
Jun	225.03	254.42	205.15	242.44	251.73	235.68	250.61
Jul	227.79	258.19	207.23	246.48	256.40	239.26	255.13
Aug	233.50	271.35	207.91	252.93	267.12	242.60	261.70
Sep	239.69	285.63	208.62	258.22	279.03	243.08	270.74
Oct	241.17	285.89	210.93	266.19	283.96	253.26	275.31
Nov	244.84	292.20	212.81	275.46	290.52	264.50	284.33
Dec	243.60	286.64	214.50	278.38	286.07	272.78	282.83
2011 Jan	246.76	292.52	215.82	282.96	291.06	277.07	284.47
Feb	244.93	286.26	216.98	288.24	289.24	287.51	281.56
Mar	248.55	292.03	219.15	297.86	294.48	300.32	284.83
Apr	252.58	296.04	223.19	304.58	296.72	310.30	287.28
May	253.17	292.73	226.42	299.85	296.11	302.57	287.89

*: all groups combined

Table A13: International Commodity Prices/Indices	Jan-11	Feb-11	Mar-11	Apr-11	May-11
Energy					
Crude Oil (US\$ per barrel)*	92.7	97.7	108.7	116.3	108.2
IMF Energy Index (2005 =100)	173.3	181.5	198.6	210.7	198.7
WB Energy Index (1990=100) @	320.4	333.7	365.4	389.1	364.1
Food (\$/MT)					
Rice	528.4	532.8	509.0	500.6	500.6
Wheat	326.6	348.2	316.8	336.3	354.5
Sugar	29.7	29.3	25.9	23.9	21.9
Palm Oil	1,238.6	1,248.6	1,142.2	1,123.8	1,143.4
Soybean Oil	1,257.1	1,268.4	1,245.1	1,279.0	1,255.7
Non-Food Non-Energy					
Cotton Outlook 'A' Index #	178.9	213.2	229.7	216.6	165.5
IMF Metal Price Index (2005=100)	245.5	256.2	244.2	250.1	239.5
Copper (\$/MT)	9,533.2	9,880.9	9,503.4	9,482.8	8,931.7
Aluminum (\$/MT)	2,439.7	2,515.3	2,555.5	2,667.4	2,587.2
Iron Ore (\$ cents/dry MT)	179.6	187.2	169.4	179.3	177.1
Tin (\$/MT)	27,439.4	31,619.7	30,590.9	32,347.7	28,571.4
Nickel (\$/MT)	25,621.2	28,412.2	26,710.4	26,332.2	24,164.6
Zinc (\$/MT)	2,375.8	2,473.5	2,341.5	2,371.5	2,159.6
Lead (\$/MT)	2,584.0	2,595.6	2,624.0	2,719.4	2,419.6
Uranium (\$/pound)	63.9	65.0	63.5	57.8	56.1
DAP (\$/MT)	595.8	603.8	605.5	617.1	609.8
Urea (\$/MT)	374.1	358.1	327.8	340.4	397.4
\$/MT = US\$ per metric tonne.					
* Crude Oil (petroleum), simple average of three spot prices; Dated Brent, West Texas Intermediate, and the Dubai Fateh					
# Middling 1-3/32 inch staple, Liverpool Index "A", average of the cheapest Cts/lb five of fourteen styles, CIF Liverpool (Cotton Outlook, Liverpool). From January 1968 to May 1981 strict middling 1-1/16 inch staple. Prior to 1968, Mexican 1-1/16. 2/					
DAP: Diammonium Phosphate					
@ World Bank commodity index for low and middle income countries					
Corrigendum: The prices of DAP and Urea appeared in the Inflation Monitor of Jan-Apr, 2011 have been corrected as above.					
Source: IMF and World Bank.					

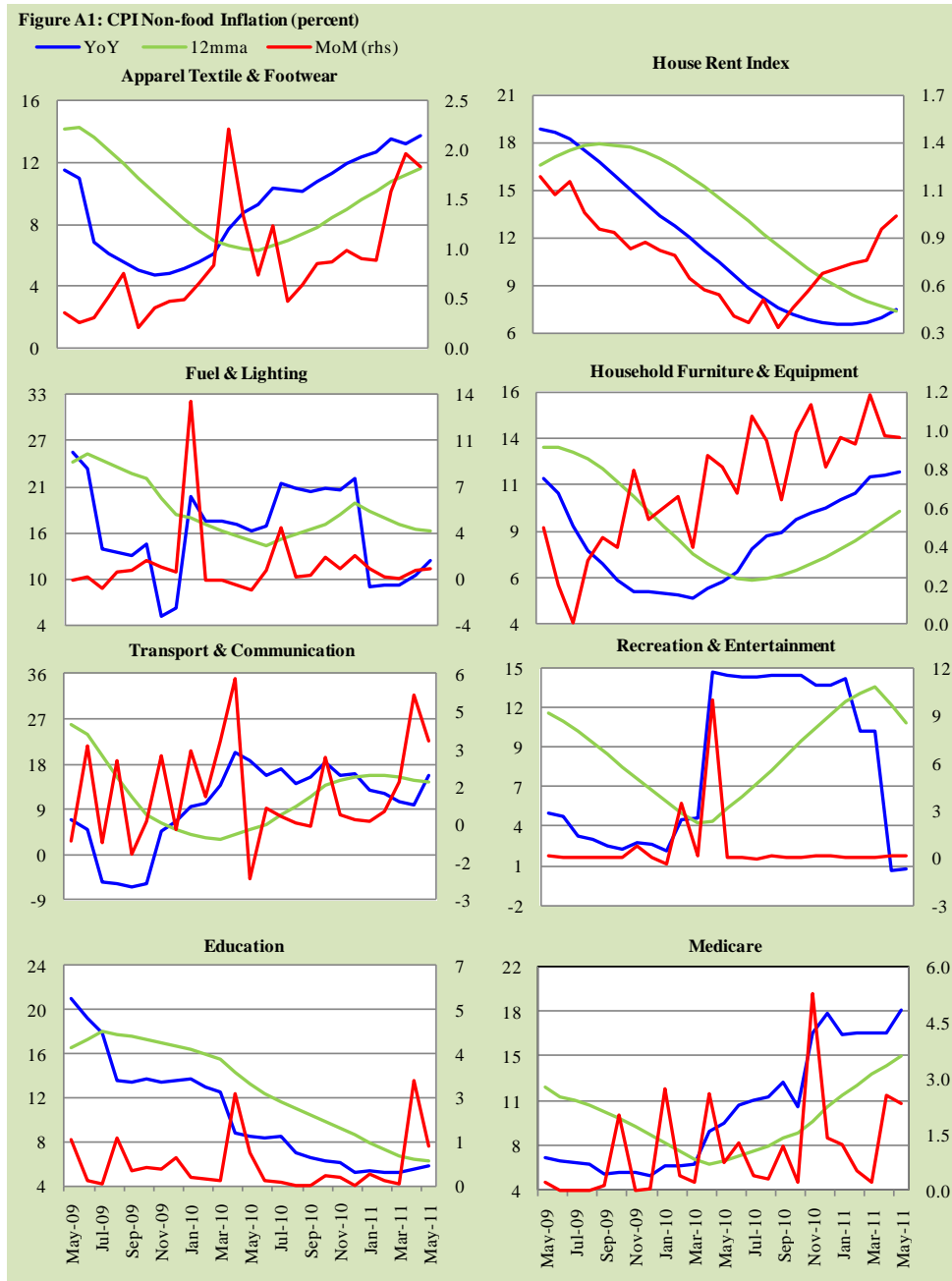
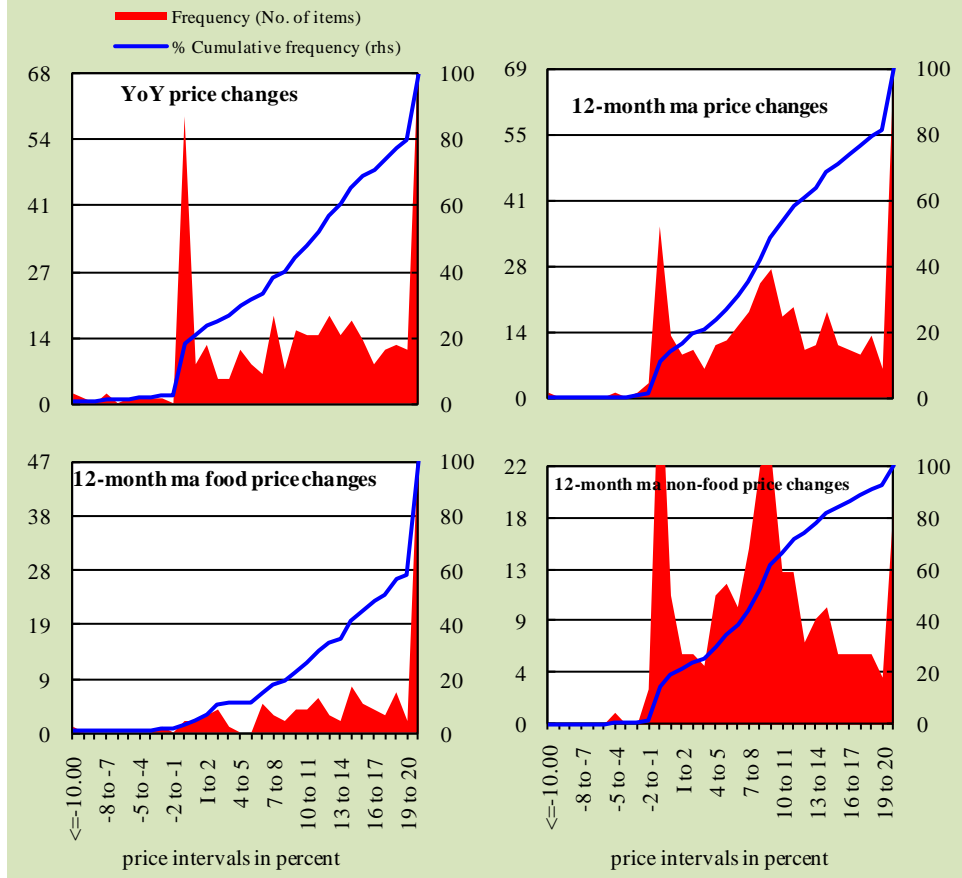
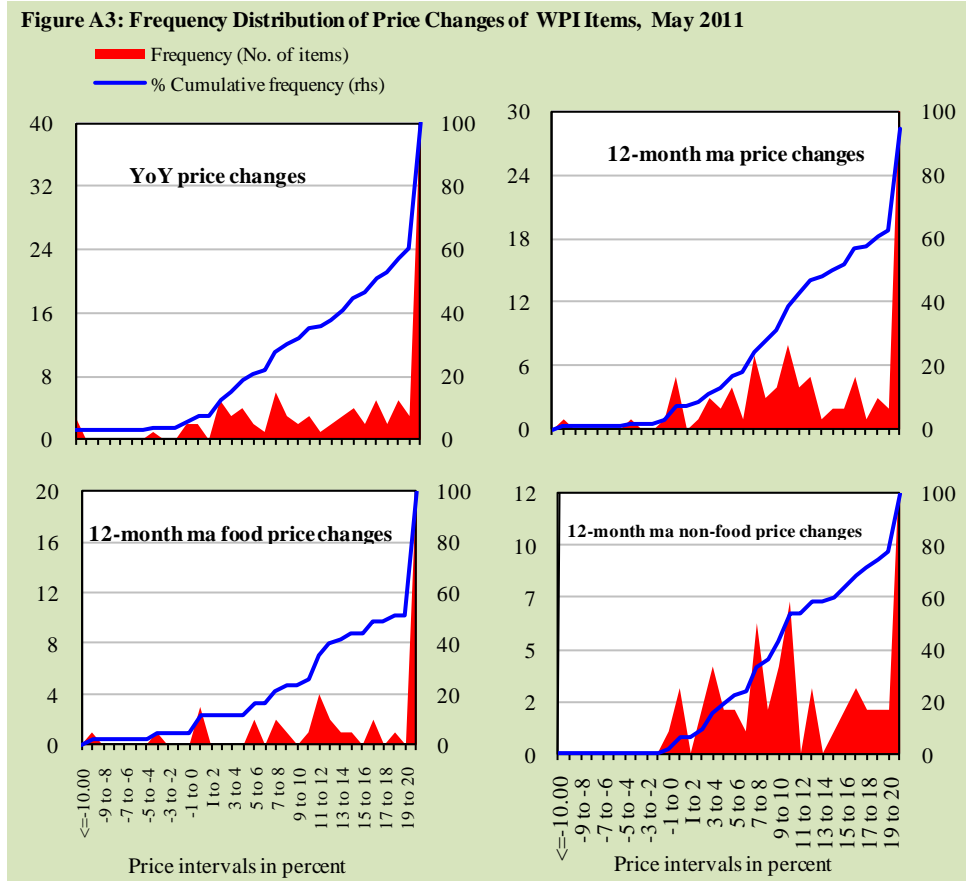
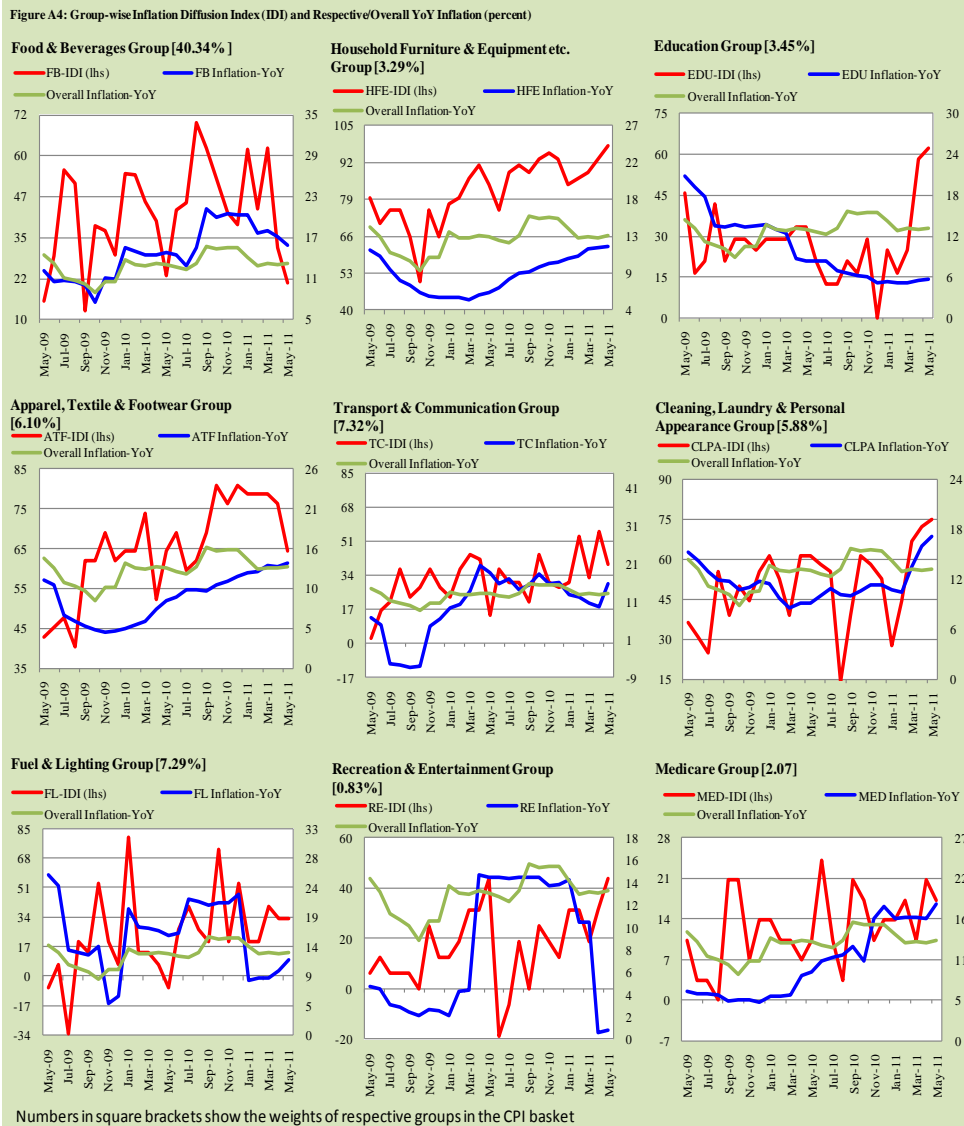


Figure A2: Frequency Distribution of Price Changes of CPI Items, May 2011







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.
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. Monthly inflation is the percent change of an index in a given month over the index in the preceding month. It is computed as follows:

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

7. 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:

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

8. 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 group and energy items (kerosene oil, petrol, diesel, CNG, electricity and natural gas) 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/12-month moving average/monthly/period average changes in their price indices 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 changes in price indices of the rest of the items is core inflation.
9. Weighted contribution of different items (or sub-groups) to total inflation is worked out as below:

Let the overall index (I_t) is the weighted average of price indexes of individual items or sub-groups (I_{it}), i.e.

$$I_t = \sum_i w_i \cdot I_{it}$$

The weighted contribution of a single item (or a sub-group) to overall inflation is defined as below:

$$C_{it} = \alpha_{it-12} \cdot w_i \cdot \left(\frac{\pi_{it}}{\pi_t} \right)$$

Where C_{it} : Contribution of i^{th} item to the overall inflation

$$\alpha_{it-12} = \frac{I_{it-12}}{I_{t-12}}; \text{ i.e. ratio of item's index to overall index in}$$

the reference month

w_i : Weights of i^{th} item

π_{it} : Inflation of i^{th} item

π_t : Overall inflation

Methodology for Estimating Inflation Diffusion Index for Pakistan

We constructed an index to measure the spread of inflation in the 374 commodities of the CPI basket. It is based on month-on-month (MoM) change in the prices of these commodities and can be obtained by estimating what is known as an ‘inflation diffusion index’ (IDI) as below:

$$\frac{\text{Number of Commodities with } \uparrow \text{ in MoM change} - \text{Number of Commodities with } \downarrow \text{ in MoM change}}{\text{Number of Commodities for which prices are reported}}$$

Thus, it is the difference between the share of items with increasing prices (i.e. depicting inflation) and the share of items with falling prices (i.e. depicting deflation) in CPI amongst the commodities for which prices have altered or remained constant⁴.

Based upon commodity level price data from July 2001 to February 2011 we computed inflation diffusion indices overall (general) CPI basket and for all groups in CPI basket (except House Rent Index being single item). A simple analysis⁵ suggests that IDI is a leading indicator for Pakistan’s YoY inflation.

⁴ We do not observe the prices of certain commodities (like the seasonal items) during certain periods of time. To calculate the inflation diffusion index we consider the commodities for which prices have been reported (irrespective of changed or not) during the month under review.

⁵ Formal test shows one way ‘Granger’ causality from IDI to YoY inflation.