3 Prices

3.1 Global Inflation Scenario

Inflationary pressures strengthened around the world in 2007-08 due to soaring food and oil prices. According to global commodity price indices, prepared by IMF, food and fuel prices increased by 42.3 and 79.8 percent during Jul-07 to Jun-08 (see **Figure 3.1**). However, since then slight ease in inflationary pressures has been observed in global commodity price indices mainly due to weakening global demand and appreciation of US dollar against euro.

Table 3.1: Inflation and Interest Rates (percent)

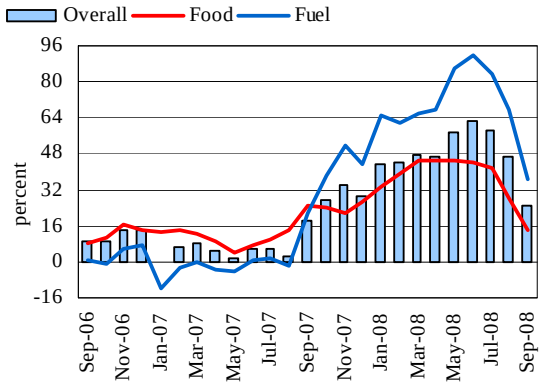
	Inflation (YoY)		Policy rate		
	Sep-07	Sep-08	Previous	Current	w.e.f
Pakistan	8.4	23.9	12.00	13.00	30-Jul-08
India*	7.3	9.0	9.00	8.00	20-Oct-08
Indonesia	7.0	11.0	9.25	9.50	7-Oct-08
Malaysia	1.8	8.2	3.25	3.50	26-Apr-06
Philippines	2.7	11.9	5.75	6.00	28-Aug-08
Thailand	2.1	6.0	3.50	3.75	27-Aug-08
China	6.2	4.6	7.20	6.90	8-Oct-08
Vietnam	8.8	27.9	14.00	13.00	21-Oct-08
US	2.8	4.9	2.00	1.50	8-Oct-08
Euro Area	2.1	3.6	4.25	3.75	8-Oct-08
New Zealand#	1.8	5.1	7.50	6.50	22-Oct-08
UK	1.7	5.2	5.00	4.50	8-Oct-08

* Data pertains to August

\# Quarterly data of September

Source: The Economist, Bloomberg, and central banks web sites

Figure 3.1: World Inflation (YoY Change)



Source: IMF and World Bank

A number of long and short term factors are held responsible for the rise in global food prices during FY08. Among long term factors; preference for crops used in bio-fuel production[1], higher food demand from emerging economies, low inventory levels of key food commodities, and higher energy and fertilizer costs contributed to the recent surge in prices. On the other hand, temporary factors include droughts, floods, hedge funds rising interest in commodities and trade related policy responses by many countries to ensure availability of commodities in domestic markets.[2] The inflationary impact of recent hike in food prices is of particular concern for emerging and developing economies, as food price increases accounted for almost 70 percent of headline inflation in 2007[3].

Apart from high food prices, sustained rise in the international crude oil prices has been a challenging development for global price stability due to its direct and indirect implications for world inflation. It has direct effects on headline CPI to the extent of its weighted contribution. On the other hand, oil prices indirectly affect CPI inflation because petroleum is used as input in the production and transportation of many other commodities. The price of oil has touched record levels of US$ 147 per barrel on July 12, 2008 as the demand for oil has remained robust because of continued strong growth in emerging and developing

[1] Corn and sugar are used for ethanol and palm oil for bio-diesel. Moreover, prices of competing products are also pushed up due to fall in their production.

[2] Some counties imposed export ban or minimum export price that further aggravated the problem by disrupting supplies in the world markets. In addition, some countries reduced or eliminated import duties or extended subsidies to offset the impact of rising international prices on domestic inflation that supported continued strong demand.

[3] IMF Survey May 13, 2008

economies. These economies as a group have accounted for about 95 percent of the growth in demand for oil since 2003[4]. Oil prices have, however, eased in the recent months mainly due to concerns that consumption is falling amid slowing economic growth.

A significant feature about the commodity prices is that many of these have shot up to all-time highs and are expected to remain higher in coming months compared to the average prices of 1990s. Prices of wheat, rice, edible oil, corn, metals, DAP; urea, crude oil and gold have touched historic highs after July 2007. A distinctive attribute of the current uptrend in commodity prices is that, it has lasted for a longer period[5]. For example uptrend in the prices of soybean oil, crude oil, iron ore, rice and wheat has lasted continuously for 85, 79, 69, 64 and 34 months (see **Table 3.2**).

Table 3.2: Global Commodity Prices

	Units	Previous high	Current high	No. of months of current trend	Sep-08
Crude oil	US$/barrel	37.8 Dec 79	132.5 Jul 08	79	99.3
Wheat	US$/MT	262.11 May 96	439.72 Mar 08	34	295.6
Rice	US$/MT	535 Jun 81	1015.2 April 08	64	722
Soybean oil	US$/MT	825 May 84	1414 Jun 08	85	1042
Palm oil	US$/MT	785.8 May 84	1146.9 Mar 08	41	667
Corn	US$/MT	204 May 96	287 Jun 08	74	234
Iron ore	US$/MT	34.76 Dec 91	141 Sep 08	69	141
Aluminum	US$/MT	3578.1 Jun 98	3067 Jul 08	37	2424.1
Gold	US$/Ounce	674.8 Sep 80	939.8 Jul 08	61	829.9

Source: IMF & World Bank

As a result of strong inflationary pressures, many central banks around the world raised their policy rates (see **Table 3.1**). In addition to monetary tightening, some countries have taken additional measures to check rising food and oil prices (see **Box 3.1**). These measures include reduction in food and fuel import taxes & tariffs, export taxes and quotas, provision of subsidies, transfer programs[6], wage and pension adjustments[7].

Agricultural commodity prices are expected to remain relatively high for the foreseeable future, as supply responses may require both new investment and policy reforms[8]. In this background, the policy actions that may smooth commodity prices in medium to long-term period include: up-gradation of infrastructure, distribution and storage systems, expansion of irrigation systems, subsidization of high-yield products and key agricultural inputs such as fertilizer without hampering long-term incentives to produce.

3.2 Domestic Scenario

Impact of strong global inflationary pressures coupled with domestic factors, such as continued strong aggregate demand pressures well supported by expansionary fiscal policy, upward revisions in administered prices (fuel and wheat) as well as supply disruptions due to law and order situation or speculative hoarding, led to a surge in domestic inflation during FY08 and onwards. This increase in domestic inflation was exhibited by all price indices: annual average of CPI, WPI, SPI and GDP deflator (see **Table 3.3**). While food inflation is primarily responsible for surge in CPI and SPI, acceleration in WPI is equally contributed by both food and non-food inflation.

[4] IMF Survey, May 8, 2008.
[5] See for details, "Commodity Prices in Historical Perspective". Wachovia Economic Group May 2, 2008.
[6] Transfer programs include school feeding programs, fee waivers, public works programs etc.
[7] Countries often increase minimum wages and pensions to provide relief against rising prices.
[8] IMF World Economic Outlook Update, July 2008.

Although, inflationary pressures started building up during the early months of FY08, a sharp rise in inflation was witnessed in the last four months of FY08 (see **Figure 3.2**). The strength in inflation during the first eight months of FY08 (Jul-Feb) was mainly driven by domestic food inflation as a result of strong demand pressures, high global commodity prices and domestic market imperfections.

On the other hand, steep rise in inflation during the last four months of FY08 was the result of unanticipated strength of international commodity prices, upward adjustment in administered prices of key fuels, rationalization of wheat support price as well as pressures on prices of wheat due to speculative shortages in some parts of the country. A sharp depreciation of rupee during this period[9] also fueled inflationary expectations in the economy. The administrative policy actions include pass through of oil and energy prices to domestic consumers, while exogenous shocks comprise unprecedented rise in international crude oil prices and record high government borrowings from SBP to finance its burgeoning fiscal deficit (see **Figure 3.3**). As a result, inflationary expectations hold roots in the economy and inflation reached three decades high levels.

Given the severity of the situation and to mute the second round impact of sustained high food inflation, the central bank tightened monetary policy during May 2008 through unusual interim monetary policy measures. In fact, given fiscal stimulus, containing inflationary pressures lies disproportionately on monetary authorities. In addition, rising external imbalances and pressures on domestic currency also compelled SBP to raise its key policy rate further in July 2008.

Table 3.3: Inflation Trends

percent

Period	GDP deflator	Annual average (12mma)			YoY*		
		CPI	WPI	SPI	CPI	WPI	SPI
FY04	7.7	4.6	7.9	6.0	8.5	12.8	11.7
FY05	7.0	9.3	6.8	11.1	8.7	6.2	9.4
FY06	9.2	7.9	10.1	7.8	7.6	9.0	8.7
FY07	7.8	7.8	6.9	9.4	7.0	7.3	8.1
FY08	13.4	12.0	16.4	14.2	21.5	30.6	26.3
Sep-07	-	7.4	7.0	9.0	8.4	9.3	9.8
Sep-08	-	16.4	23.1	19.9	23.9	33.2	29.6

*June

12mma= percent change in 12 month moving average of index during a month over corresponding month last year

YoY= percent change in index during a month over the corresponding month of previous year

Figure 3.2: Inflation Trends (YoY)

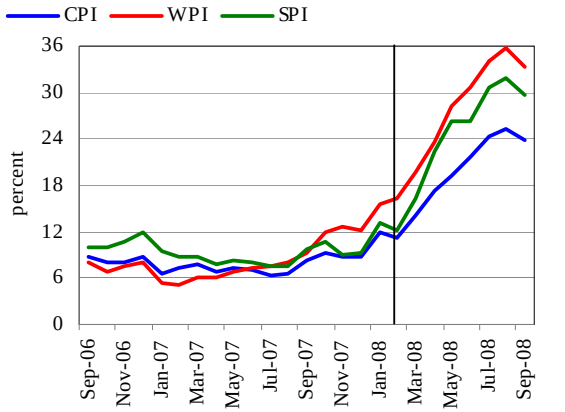


Table 3.4: No. of Items Showing Double Digit Price Changes

CPI inflation	FY07	FY08
Overall	88	118
Food	60	71
Non-food	28	47

As a result of tight monetary stance, inflationary pressures are likely to ease in the second half of FY09, assuming no further adjustment in administered fuel and utility prices, as well as a continued down trend in international commodity prices.

It is also pertinent to note that the inflationary pressures were broad-based in FY08 compared to the previous fiscal year. This is evident from the fact that more individual items showed double digit rise

[9] Rupee depreciated by 3.4 percent against US dollar during Jul07-Feb08 and 12.3 percent during Mar08-Jun08 (final four months of FY08).

in their prices during FY08 compared to the last year (see **Table 3.4**). The persistence of inflationary pressures is also apparent from the trends exhibited by both measures of core inflation (see **Figure 3.4**). The non-food non-energy (NFNE) and 20 percent trimmed mean measures of core inflation recorded 8.4 and 10.2 percent 12-month moving average inflation in June-08 compared to 5.9 and 6.9 percent in June-07.[10] An uptrend in core inflation is indicating resilience in inflationary pressures. These inflationary pressures suggest a close monitoring of emerging trends.

It is important to assess the impact of fiscal consolidation, rise in domestic prices of fuel and utility charges as well as earlier monetary tightening. It should be remembered that 15.4 percent expansion in money supply during FY08 is significantly lower than the growth in nominal GDP. It means that a substantial part of monetary overhang of earlier years had also been absorbed.

Figure 3.4: Core Inflation (YoY)

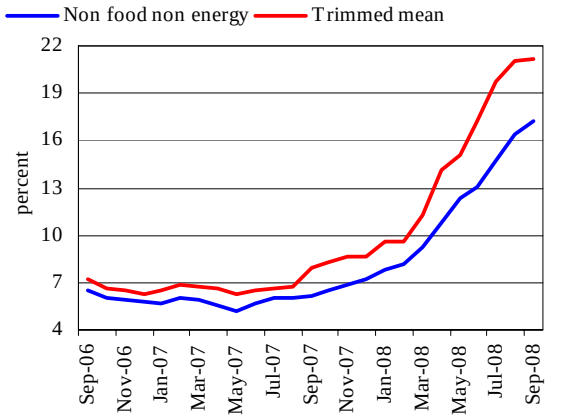


Figure 3.5: CPI Inflation (YoY change)

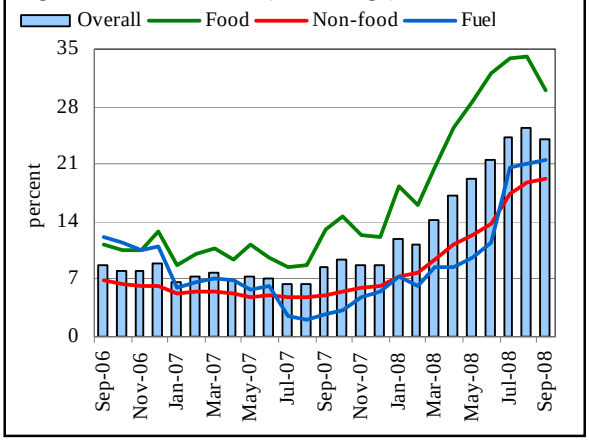
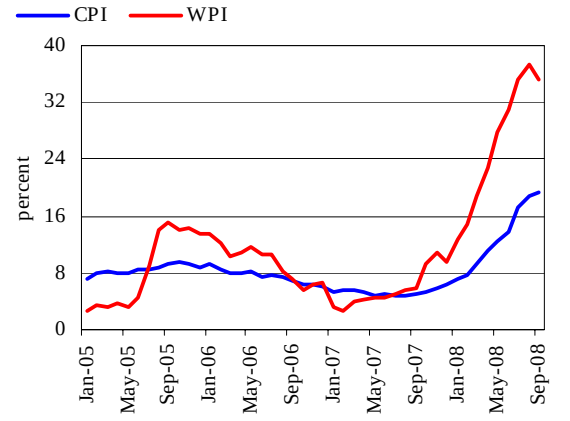


Figure 3.6: Trends in Non-food Inflation



3.3 Consumer Price Index (CPI)

Headline CPI inflation reached high levels during FY08. After showing fluctuations during the first eight months of FY08, CPI inflation witnessed a steep rise to reach 25.3 percent in August 2008 before it dropped to 23.9 percent in September 2008.[11] This sharp rise in headline inflation during the later months of FY08 was mainly driven by food inflation. CPI food inflation increased almost four times in August 2008 (34.1 percent) from 8.6 percent in August 2007. This upsurge in food inflation during the final four months of FY08 was mainly a result of double digit rise in the price of essential food commodities such as wheat, flour, rice, ghee, cooking oil, milk and milk products. However, CPI food inflation eased slightly in the month of September 2008 and dropped to 29.9 percent, principally due to provision of essential food items on subsidized rates at Utility Stores, as well as, maintenance of lower wheat prices by

[10] 12-month moving average inflation recorded by NFNE and 20 percent trimmed mean are 10.9 and 13.5 percent respectively during September 2008.

[11] Headline CPI YoY inflation exhibited an uptick during October 2008 as it was recorded at 25.0 percent compared to 9.3 percent during the same month last year. Similarly the annualized (12mma) CPI inflation witnessed an increase as it reached 17.7 percent during October 2008 compared to 7.5 percent during October 2007.

the Punjab Government.

Non-food inflation, which was creeping up in H1-FY08 also showed sharp uptrend since then and reached 19.2 percent in September 2008.

Pass-through of petroleum products prices to the domestic consumers, rising air and road fares, increase in gas & electricity charges and rise in HRI also contributed to the rise of non-food inflation (see **Figure 3.5**). In addition, second round effects of persistent high food inflation on various consumer goods and impacts of exchange rate depreciation are also evident in *education, medicare, recreation & entertainment, cleaning, laundry & personal appearance* sub-groups. After showing a sustained uptrend over the last year WPI non-food inflation declined in September 2008. If this decline continues it is likely to bring down CPI non food inflation in months ahead as WPI non food inflation is a close proxy to increase in producers cost (see **Figure 3.6**).

Figure 3.7: Average Contributions to CPI Inflation (YoY)

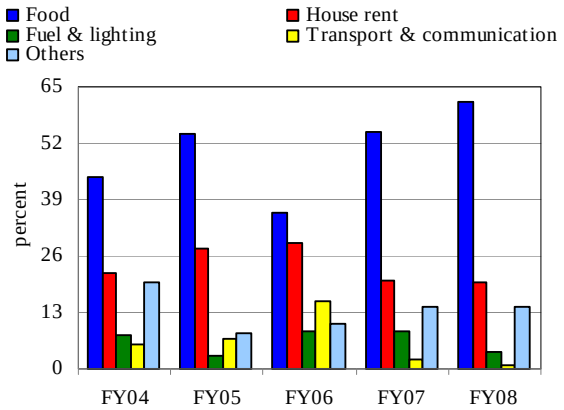
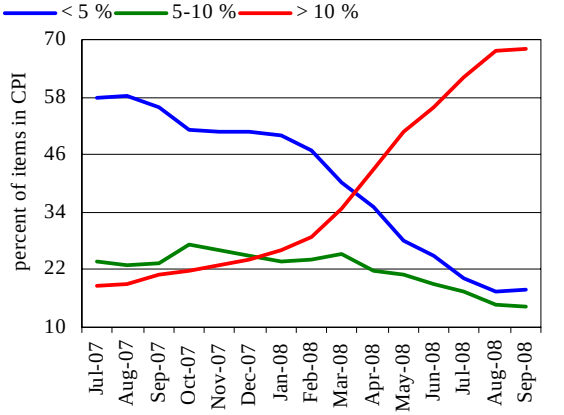


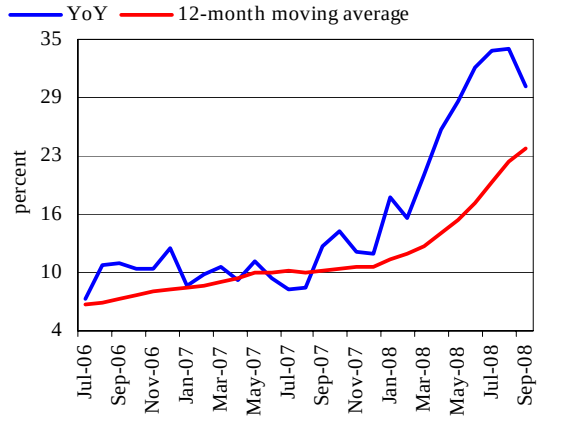
Figure 3.8: Distribution of Price Changes (YoY)



Despite rising CPI non-food inflation, its contribution in overall CPI inflation is declining due to disproportionately higher food inflation in the economy (see **Figure 3.7**). However, within the *non-food* group, contribution of HRI increased to 51.1 percent in FY08 after hovering around 45 percent in FY06 and FY07. The increase in HRI is a result of continuously rising wages and material price. While annualized weighted contribution of *fuel & lightening* sub-group in overall CPI inflation came down to 9.8 percent in FY08 compared to 19.0 percent in FY07, it has increased in recent months.

It is important to note that the present inflationary pressures are quite broad-based. Analysis of distribution of price changes for FY08 reveals that the numbers of items showing inflation in double digits are increasing. Sixty eight percent items showed above 10 percent inflation in September 2008 compared to only 21 percent in the same month last year. In contrast the number of items with less than 5 percent inflation declined significantly during FY08 (see **Figure 3.8**). Interestingly, here too, items with double digit YoY increase in prices were below 30 percent by February 2008, and their share rose rapidly thereafter. This reinforces

Figure 3.9: CPI Food Inflation

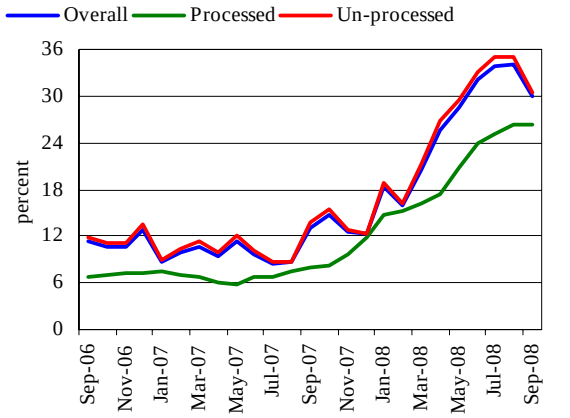


the view that unanticipated outcome during H2-2008 can be held responsible for worsening inflation scenario.

3.3.1 CPI Food Group

While CPI food inflation showed persistence in FY07, it witnessed a sharp acceleration throughout FY08. CPI food inflation recorded annualized growth of 17.6 percent in FY08 compared to 10.3 percent during FY07. In particular, CPI food inflation witnessed surge since March 2008 (see **Figure 3.9**). Essential food items such as wheat, rice, edible oil etc witnessed sharp increases in price levels during FY08. In case of wheat, the rise in domestic price level was partially due to the impact of weaker harvest, speculative hoarding and smuggling.[12] On the other hand, high global prices of rice encouraged export of rice, resulting in increase in the domestic price level.[13]

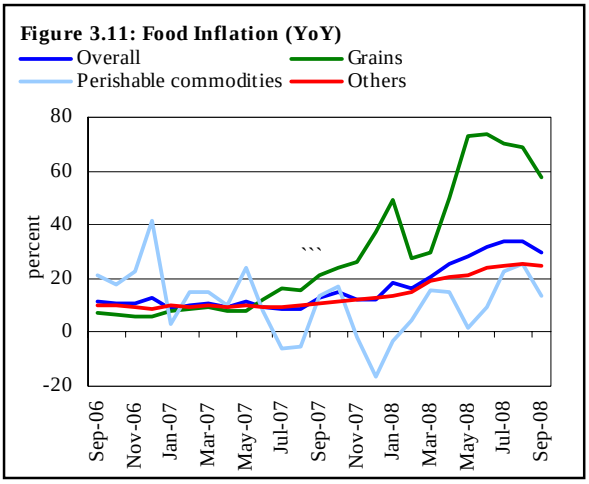
Figure 3.10: Food Inflation (YoY)



Domestic price levels have also been influenced by global factors. International food prices have increased considerably during FY08 affecting the domestic price levels of many countries including Pakistan. There are many factors responsible for this upsurge in global food prices, including rising demand in emerging economies due to a general change in consumption pattern, crop diversion of important crops like corn, soybean and sugarcane towards bio-fuel production and a rise in the prices of agricultural inputs specially fertilizers (DAP and Urea). The rise in the prices of fertilizers is also attributed to the rise in international energy prices.

In this backdrop, prices of grains witnessed a sharper rise relative to increase in the prices of processed food items. Thus, food inflation is primarily driven by rise in the prices of unprocessed food items. The dispersion between the price increases of processed and unprocessed food that widened from March 2008 onwards has narrowed in the last two months due to a relative ease in the prices of unprocessed food items (see **Figure 3.10**). This variation principally reflects that: (1) demand for unprocessed food items is relatively inelastic (2) cost structure of processed food contains a larger part of labor, packaging, advertisement and distribution expenses, which allows firms to absorb a part of rise in the prices of key ingredients through reduction in margins and increase in productivity, and (3) some of the processed food items are based on perishable minor crops (e.g., tomato ketchup), where increase in the prices is relatively subdued (see **Figure 3.11)**.

Figure 3.11: Food Inflation (YoY)



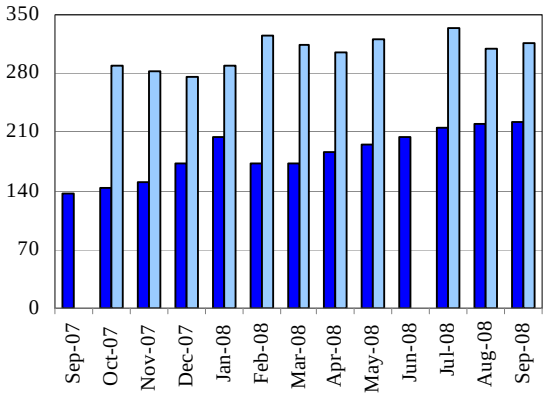
[12] Increase in wheat support price resulted in hording and a relatively lower domestic flour price resulted in smuggling to neighboring countries.

[13] The government maintained minimum export price in case of basmati rice in order to ensure domestic availability.

It should be noted that existence of price distortions and weak structure of supply chain management also contributed to the high grain prices. For instance, despite that the total available domestic wheat stocks were sufficient for domestic consumption, price of wheat increased sharply during FY08. This may be attributed to increase in wheat support price that promoted hoarding, and relatively lower domestic wheat prices that encouraged smuggling to the neighboring countries, thus creating shortage for the domestic consumers.

Announcement of wheat support price[14], however, poses a policy dilemma. A significant rise in support price offers huge profit margins on the existing stocks and leads to both speculative hoarding and generates inflationary expectations. If the announcement of the support price is delayed or the rise is not aligned with farmers' expectations, it results in a decline in wheat harvest. It also leads to domestic shortages; hoarding and import of wheat at substantially high prices (see **Figure 3.12**). Some analysts argued that the domestic support price should be equivalent to import prices, however it should be remembered that international prices are volatile and a downward adjustment in domestic prices in response to sharp decline in international prices would be difficult. It should also be kept in mind that domestic prices cannot be kept lower by subsidizing farmers, as it would create incentives for smuggling. In this situation, announcement of wheat support price should be complemented with strict administrative and regulatory checks on hoarding, smuggling and to ensure a gradual upward adjustment in retail prices. The latter may be done through gradual adjustment in issue price[15] for flour mills.

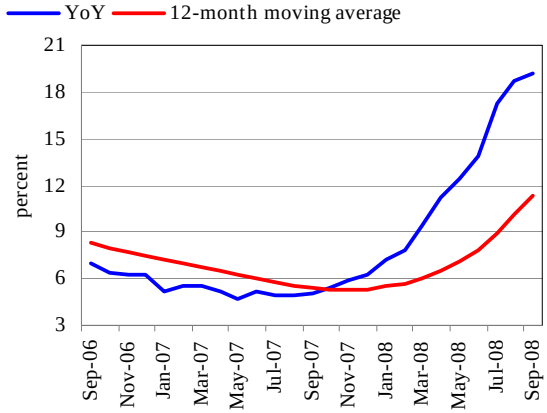
Figure 3.12: Wheat Price (Rupee/10 kg)



Fortunately, following recent strengthening of US dollar and rising fears of recession in advanced economies, acceleration in global commodity prices appears to have stalled. This along with the signs of abatement of domestic demand pressures and reduction in government subsidies on primary commodities will provide help in correcting unanticipated strength in food and fuel prices in the medium term. However, exchange rate pressures may continue to partially offset these gains.

Taming high domestic food inflation is also necessary given its incidence is disproportionately stronger for low-income groups. The government thus needs to take necessary administrative measures to provide relief to low-income households. These measures include ensuring access to key food items and providing targeted subsidy on key

Figure 3.13: CPI Non-food Inflation



[14] The government of Pakistan has recently fixed support price for the next wheat crop at Rs 950 per 40kg.
[15] Price at which the government supplies wheat to the flour mills.

food items in the short-term and enhancing productivity and provision of better storage and transportation facilities of food items in medium to long-term. Improvement in market structure through regulations against anti-trust activities is also needed to check unnecessary increase in the prices of essential items. An effective role of consumer associations is also important to create awareness and protect their rights. In this regard, though electronic media is playing a positive role, government should also provide support to form effective forums for consumers.

3.3.2 CPI Non-food Group

CPI non-food inflation, which was quite benign in H1-FY08,[16] accelerated in H2-FY08, and reached 19.2 percent on YoY basis during September 2008 compared to 5.0 percent during the corresponding month last year (see **Figure 3.13**). All sub-groups of non-food group recorded higher inflation in FY08 as compared to FY07. However, the major contributors in recent upsurge of non-food inflation are *transport & communication*, *house rent index, cleaning, laundry & personal appearance* and *fuel & lighting* sub-groups reflecting the impact of high international commodity prices and pass-through of high global oil prices to domestic prices of key fuels during H2-FY08 (see **Table 3.5**).

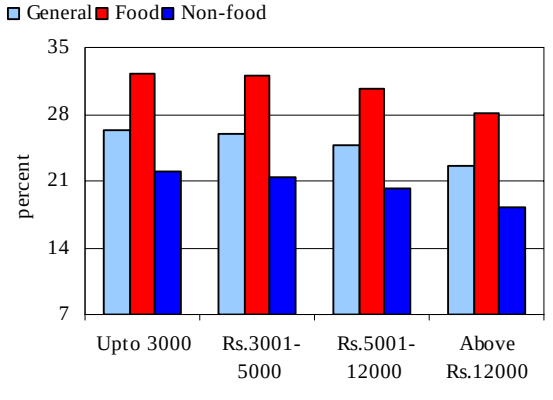
Table 3.5: CPI Non-food Inflation (YoY) by Groups

	Weights	Sep-06	Sep-07	Sep-08
Non-Food Group	**59.7**	**7.0**	**5.0**	**19.2**
Apparel, textile, etc.	6.1	4.0	7.6	16.1
House rent	23.4	7.3	7.5	15.0
Fuel & lighting	7.3	12.1	2.7	21.5
Household furniture & equipment	3.3	6.7	6.3	12.7
Transport & communication	7.3	5.3	-3.1	39.9
Recreation & entertainment	0.8	0.2	0.0	12.2
Education	3.5	7.2	4.8	16.0
Cleaning, laundry, etc.	5.9	4.1	6.5	19.3
Medicare	2.1	9.8	7.8	10.7
Overall CPI	**100**	**8.7**	**8.4**	**23.9**

The *transport & communication* sub-group showed a significant increase in H2 FY08 and reached 39.9 percent (YoY) in September 2008, compared to (-) 3.0 percent in December 2007. This significant rise was due to the impact of recent price adjustments of key fuel and subsequent increase in transport fares.

While a part of non-food inflation is due to high international commodity prices, a significant part is a result of second round effects of persistent high food inflation. In particular, acceleration in HRI is an outcome of both rises in international metal prices, as well as, pressures on domestic wages. Similarly, increase in apparel, textile & footwear is largely attributed to higher international prices of key inputs, chemicals and petroleum derivatives. In contrast, acceleration in inflation in household furniture & equipment, recreation & entertainment, education, cleaning, laundry & personal appearance and Medicare is mainly a result of second round effects.

Figure 3.14 : Income Group-wise CPI Inflation (YoY) September -2008



3.4 Incidence of Inflation

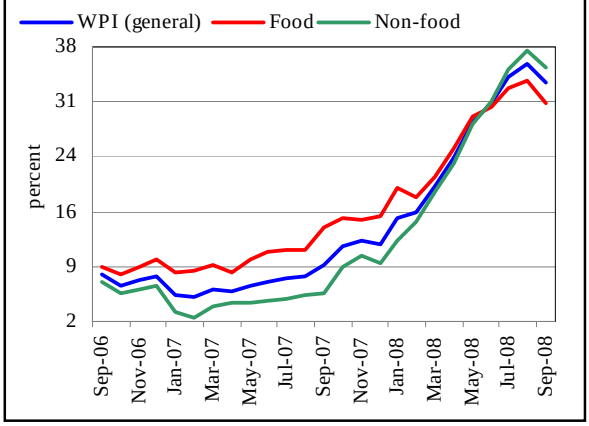
Not surprisingly, income group-wise distribution of inflation showed that the highest incidence of inflation was on low income groups throughout FY08. This is because of a significant increase in *food* inflation, which is normally expected to

[16] CPI non-food inflation was only 6.3 percent YoY in December 2007.

increase the incidence of inflation for low and middle income groups as staple food typically account for a greater proportion of their total expenditure.

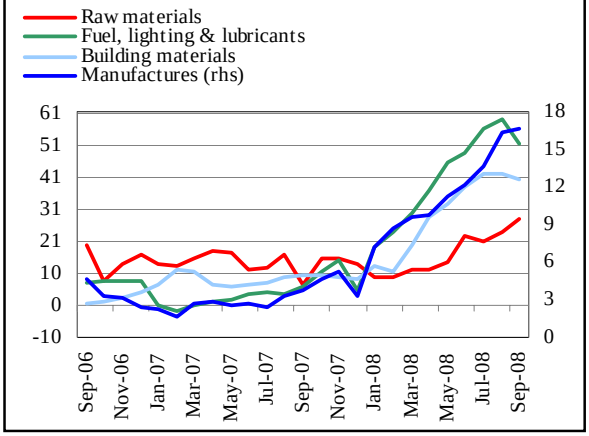
Thus in September 2008, the highest CPI inflation (YoY) of 26.4 percent was recorded for the lowest income group earning upto Rs 3000 followed by income group of Rs 3001 to 5000 (25.9 percent) and income group of Rs 5001 to 12000 (24.7 percent). The highest income group of above Rs. 12000 experienced lowest inflation at 22.6 percent (see **Figure 3.14**).

Figure 3.15: Wholesale Price Inflation (YoY)



The above data, however, suggests revision in CPI basket given (1) minimum official wage is Rs 6,000 per month, and classification of low and high income groups is not appropriate, and (2) the overall CPI basket is based on survey conducted in FY01, while consumption pattern has been changed since then. For instance, household expenditures on cellular phone bill added to the consumption basket, TV cable charges also account for a mandatory expense. In addition, expenses on utilities and transport increased disproportionately relative to FY01.

Figure 3.16: WPI Non-food Inflation (YoY)



3.5 Wholesale Price Index (WPI)

Inflation measured by Wholesale Price Index (WPI) remained persistently high throughout FY08 principally driven by rising international commodity prices. WPI registered annualized (12-month moving average) inflation of 23.1 percent in September 2008 compared to 7.0 percent in September 2007 (see **Figure 3.15**). Both food and non-food groups of WPI contributed in this rise. In particular WPI non-food inflation witnessed a sharper increase since January 2008, with items like coke, fertilizers, furnace oil and iron bars & sheets registering more than 45 percent YoY inflation throughout the period.

Within the non-food group of WPI, the *fuel, lighting and lubricants* sub-group was the major contributor in inflationary pressures (see **Figure 3.16**). Inflation registered by this sub-group reached 52.0 percent in September 2008 compared to only 6.4 percent in the corresponding month last year. This steep rise is largely on account of high crude oil prices in the international markets that directly affected the wholesale prices of coke, furnace oil and mobil oil in the domestic market. The impact of this was further aggravated by a rise in the domestic administered prices of key fuels. Consequently, the weighted contribution of the sub-group within WPI non-food group increased significantly to 62.8 percent in September 2008 compared to 47.0 percent in the same month last year (see **Table 3.6**).

Table 3.6: Contribution of Sub-Indices to WPI Non-food Inflation
in percent

	Sep-07	Jun-08	Sep-08
Raw materials	15.5	9.5	10.4
Fuel, lighting & lubricants	47.0	65.8	62.8
Manufactures	23.8	14.3	17.0
Building materials	14.1	10.5	9.7

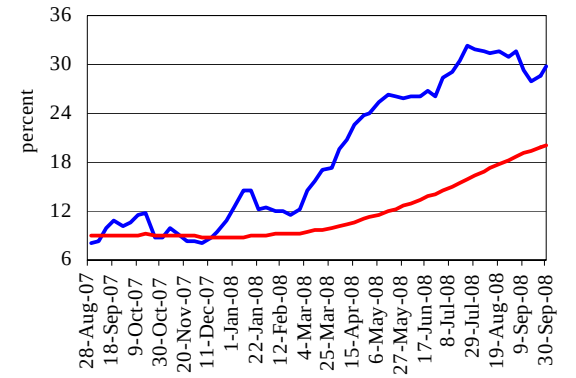
Within the *manufactures* sub-group, wholesale prices of fertilizers continued to register rising trend, reaching 87.2 percent in September 2008 reflecting increasing DAP prices in the international market.

The wholesale prices of *building material* sub-group also registered significant increase during H2-FY08 reflecting the impact of high metal prices in the international markets on items such as iron bars & sheets and wires & cables. However, due to disproportionately higher increases in other non-food sub-groups, contribution of *building material* in non-food inflation declined slightly in September 2008.

3.6 Sensitive Price Indicator (SPI)

Weekly SPI inflation (YoY) increased considerably from 7.7 percent in the last week of FY07 to 29.8 percent by the last week of September 2008. In particular, the weekly SPI inflation (YoY) increased significantly from March 2008 to mid-May 2008. This uptrend in SPI inflation reflects the rising food prices as almost 60 percent of items included in the SPI basket are from the food group. The last few weeks of FY08 saw a relative stability in SPI inflation around 26 percent mark reflecting relative ease in inflation recorded by important kitchen items like tomatoes and pulse moong. While, it appears that weekly SPI peaked out in July 08, it remains substantially high. In addition, future trend of inflation will largely be determined by changes in the prices of wheat (see **Figure 3.17**).

Figure 3.17: Weekly SPI Inflation



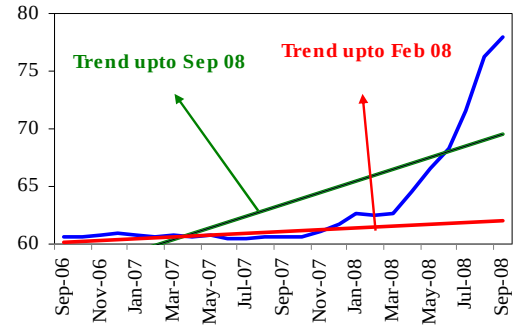
Box 3.1: Policy Responses to Recent Food and Oil Price Increase

Policy instrument	Advantages	Disadvantages	Countries where policy instrument used
Import tariffs on food	Reduce or eliminate import tariffs to decrease domestic food prices.	Poor domestic producers can be adversely affected. Revenue losses need to be recouped elsewhere in fiscal system	South Korea, Bangladesh, India
VAT and sales taxes on Food	Reduce or eliminate VAT or sales taxes to decrease domestic food prices	Revenue losses may need to be covered using other taxes that could be more distortionary. Higher urban groups typically receive a relatively large share of the benefit.	
Export taxes or quotas	Possible if country is an exporter of important food items. Ensures domestic supply of the commodity and reduces domestic food prices.	Such taxes and quotas are highly distortionary and reduce the gains from higher prices of exports. Lower prices discourage producers to increase production as their expected profits fall. May create shortage in the world and thus increase world prices.	China, India, Vietnam
Fuel taxes (VAT, excises, import taxes)	Reducing fuel taxes can lead to increase in domestic fuel price by less than world price.	Reducing fuel taxes may mean that these revenues have to be financed through more inefficient tax instruments, by cutting back growth-enhancing public expenditures or through inflationary financing that has adverse growth consequences. Higher income households receive bulk of the benefits of lower fuel taxes since they account for the bulk of fuel consumption.	
Food subsidies and price controls	If government has sufficient capacity to enforce pass-through of the subsidy, it will lead to an immediate decrease in the domestic price.	Higher income groups typically receive a relatively large share of the subsidy. Can involve a large fiscal cost, necessitating offsetting fiscal measures, possibly including higher taxes.	Indonesia, Malaysia
Import subsidy on food	It is possible where importers are already regulated. This may lead to an immediate decrease in food prices.	Import subsidies can be highly distortionary and higher food demand aggravates adverse terms of trade effect of higher import prices. May need foreign exchange to fund imports. Financing subsidy bill may involve increasing other distortionary taxes. Domestic producers loose at time. Instead, increased investment in agriculture should be encouraged.	
Targeted food subsidies	Some countries may have access to existing food subsidy programs that are targeted at low-income groups. If well targeted, a high proportion of the subsidy benefit will go to low income groups.	Can be costly if government is involved in procuring and distributing foods Requires adequate capacity to design and implement well targeted programs.	

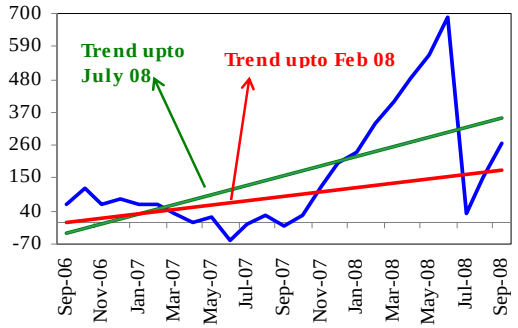
Fuel subsidies	Some countries sell fuel domestically at prices below import cost or the export price. This is especially true for kerosene and diesel in importing developing countries.	Subsidies distort domestic fuel consumption patterns and do not provide sufficient incentives to become more energy efficient. For fuel importers, subsidies increase domestic fuel consumption and exacerbate the impact of higher import prices on the balance of payments. Fuel subsidies crowd out higher priority public capital expenditure and pro-poor social expenditures Low kerosene prices can result in the redirection of kerosene to transport sector with resulting shortages, especially in poor remote rural areas.	
Agricultural input subsidies	Countries can subsidize the import of agricultural inputs such as fertilizer and pesticides. Such policies are intended to stimulate domestic production of foods and reliance on imports.	The larger farm holders gain from these programs and price subsidies can be costly if provided without addressing the underlying objective of increasing agricultural productivity	
Wage and pension adjustments	Countries often increase minimum wages, civil service wages or state pensions where these are not automatically inflation indexed.	These policies do not typically benefit the informal sector workers.	

Figure 3.3: Causes of High Inflation

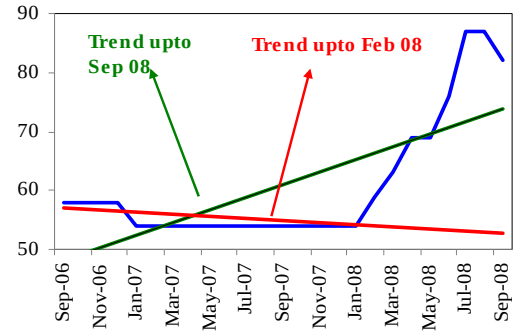
Exchange Rate (Rs/$)



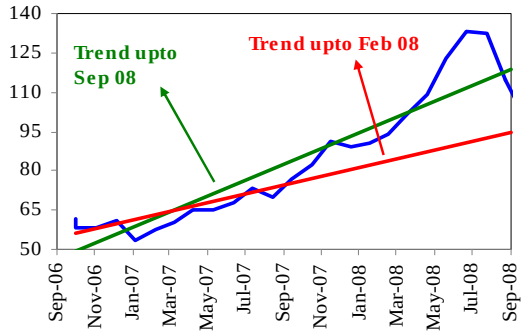
Government Expenditure (billion Rs)



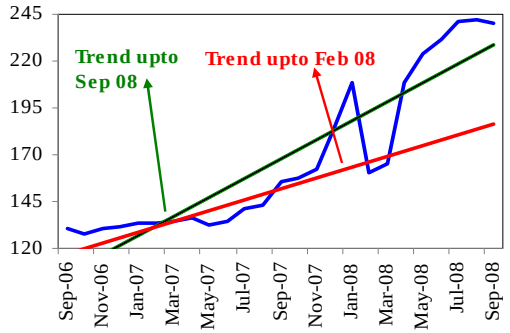
Petrol Prices (Rs per liter)



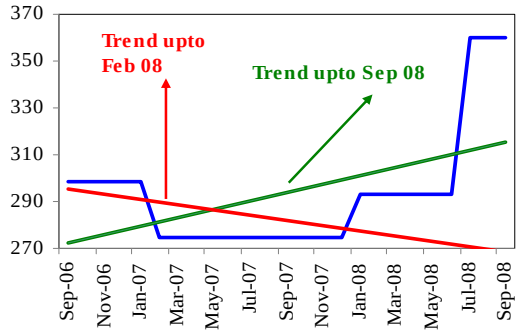
Crude Oil ($ per barrel)



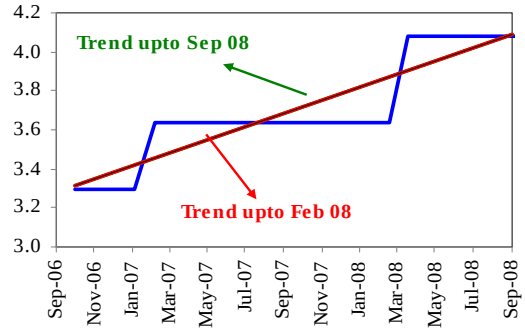
Wheat Flour (Rs per 10 kg)



Gas (Rs per TU MMBTU)



Electricity (Rs per 101-300 Units)



CPI Inflation (YoY) (percent)