3 Prices

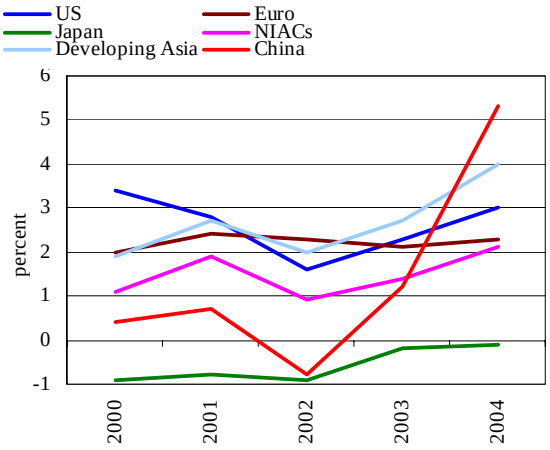
3.1 International Scenario

The gradual recovery in most major economies and the corresponding rise in inflationary pressures have swept away earlier fears of global deflation. As a result, the rising inflationary concerns have led to a gradual tightening of monetary policy in all major economies (see **Figure 3.1**). These inflationary pressures are also evident in most of the developing countries as well; not only did almost all major developing economies including Thailand, Singapore, South Korea, Indonesia and Malaysia see a rise in inflation during 2004, the deflation in Taiwan and Hong Kong also ended.

This global expansion, and in particular, the continued strong demand from the fast-growing Chinese economy, sustained the upward momentum of key commodity prices including that of oil, polyester staple fibre, cotton, steel, etc., which persisted throughout FY04 (see **Figure 3.2**).

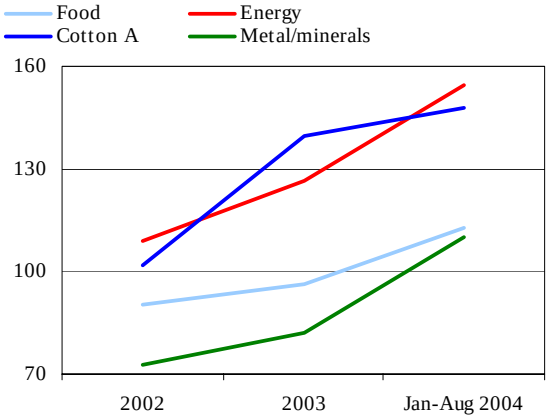
However, the high prevailing oil prices pose a significant risk of weakening of the global growth momentum as well as driving up cost-push inflation.

Figure 3.1: CPI Inflation in Major Economies



NIACs: Newly Industrialized Asian Countries
Source: (1) World Economic Outlook 2004
(2) *The Economist*

Figure 3.2: Commodity Price Indices



Source: World Bank

3.2 Domestic Scenario

The impact of rising international commodity prices is clearly evident in the domestic inflation during FY04. In particular, the rise in the WPI sub-indices for *manufacture*, *building material*, and the CPI sub-groups for *house rent index*, *fuel & lighting* and *transport & communication* are in large part a result of imported inflation.

However, the dominant influence on aggregate CPI inflation remains that of domestic factors such as rising prices of food staples (particularly exacerbated by the mismanagement in wheat supply) and, ironically, the success of the accommodative monetary posture of the central bank in accelerating growth. In fact, the breadth of the rise in inflationary pressures within the domestic economy is evident from the strong upward movements in *all* price indices during FY04 (see **Table 3.1**).

The dominance of domestic factors is most clearly visible in the ***GDP deflator***.[1] In manufacturing, the impact of rising domestic aggregate demand was compounded by a surge in international commodity prices. Importantly, even though the services sector dragged down the rise in the overall GDP deflator during FY04, it nonetheless also saw a distinct acceleration in inflation relative to FY03. The major contribution to the inflation recorded by this indicator however, was by the large jumps in prices of *major crops*, even over the substantial rise in FY03 (see **Table 3.2**).

Table 3.1: Inflation Trends

percent

Period	GDP deflator	Annual average July to June basis			Annual marginal June to June basis		
		CPI	WPI	SPI	CPI	WPI	SPI
FY00	2.8	3.6	1.8	1.8	5.1	3.4	3.3
FY01	7.8	4.4	6.2	4.8	2.5	4.5	2.0
FY02	2.5	3.5	2.1	3.4	4.4	2.4	4.4
FY03	4.1	3.1	5.6	3.5	1.9	4.4	3.5
FY04	6.8	4.6	7.9	6.9	8.5	12.8	12.6

Source: Federal Bureau of Statistics.

Table 3.2: Components of GDP Deflator

percent change

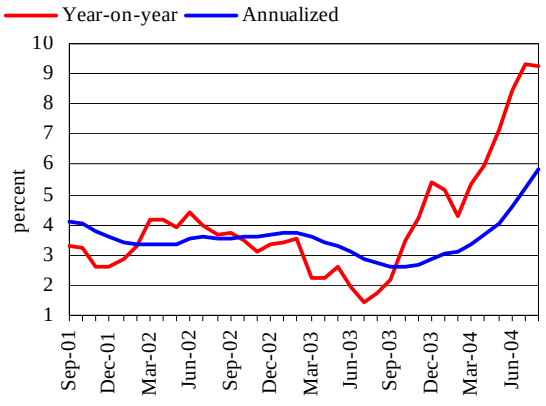
	Weights	FY03	FY04
Agriculture	23.2	3.8	9.5
Major crops	8.0	*9.1*	*21.8*
Minor crops	2.5	*-4.5*	*1.5*
Industry	24.2	3.7	7.8
Manufacturing	18.2	*5.7*	*5.6*
Construction	2.4	*-1.0*	*24.0*
Services	52.2	4.5	5.1
GDP deflator	100.0	**4.2**	**6.8**

Source: Pakistan Economic Survey 2003-04.

The leading impact of food prices is also evident in the other price indicators, which have depicted a secular uptrend throughout FY04.

Specifically, although the **Consumer Price Index** (CPI)[2] annual inflation of 4.6 percent during FY04 was above the 3.9 percent target, and seemed set to rise further during FY05 – the marginal CPI inflation was trending higher than the annual average (see **Figure 3.3**)– there was also significant evidence to support only a moderate tightening of monetary policy.

Figure 3.3: Changes in Consumer Price Index



Firstly, only a few major *food* items and *house rent index* sub-group account for much of the FY04 rise in CPI inflation. More than 75 percent of YoY CPI inflation is contributed by 9 items that have a cumulative weight of 42.1 percent in the CPI basket (see **Table 3.3**). Of these, seven items are food staples that have relatively low elasticities of demand and the prices of which are principally driven by supply-side factors.

The price of wheat, in particular, was very important as it not only directly pushes up the CPI but also contributes to a strengthening of inflationary expectations in the economy. The sharp jump in the wheat (and derivative product) prices were an important element in igniting food inflation in the domestic economy. Initially it was anticipated that the price hike at the beginning of FY04 would abate, following the normalization of wheat supply due to imports and the arrival of new crop. However as the crop proved to be below expectation, imports failed to materialize and government

[1] The broadest measure of inflation, but available only on annual basis. The formula for its computation is: GDP Deflator = (Nominal GDP / Real GDP).

[2] This is the broadest inflation measures available on a monthly basis, and it therefore the key inflation measure relevant for monetary policy.

reserves were inadequate to dampen speculative pressures. The resulting hike in wheat product prices, through its impact on expectations, probably contributed significantly to the rise in prices of other food staples, and consequently on CPI food inflation.

In the face of the unexpected strength of wheat prices as well as the uncharacteristically strong post-winter international oil prices, the anticipated January–February deceleration in CPI inflation did not sustain (see **Figure 3.3**), and the upward trend resumed March 2004 onwards.

It is pertinent to note that a key comfort point for the SBP in maintaining its accommodative monetary posture during FY04 was the subdued *non-food non-oil* (NFNO) inflation until the final quarter of the financial year (see **Figure 3.4**).[3] Thus, while the central bank had already begun a gradual tightening in H1-FY04, this was not driven principally due to concerns over inflation (see **Chapter 5** for details).

However, while noting the low NFNO inflation, the trajectory of aggregate CPI inflation could clearly not be ignored, given its influence on inflation expectations in the economy, and therefore the H2-FY04 gradual uptrend in interest rates does incorporate these concerns. This is particularly true post-April 2004, when NFNO inflation too began accelerating on the back of a sharp upsurge in the HRI, leading the SBP to pick up the pace of the interest rate adjustments (see **Figure 3.5**)

Given that both the headline CPI as well as the NFNO CPI inflation were recording increases well in excess of the adjustments in the benchmark interest rates, the market was clearly concerned over the potential buildup in inflationary pressures in the economy.[4] Taken in isolation, this concern seems

Table 3.3: Weighted Contribution in CPI Inflation (YoY)

percent

Item	June-03 Weighted contribution	June-04 Weighted contribution
CPI general	**1.93**	**8.45**
Key contributors		
Wheat & products	0.18	1.54
Milk fresh	-1.16	0.58
Chocolate candy	0.04	0.42
Beef	0.31	0.47
Mutton	0.18	0.36
Potato	-0.19	0.32
Onion	-0.27	0.45
House rent	*0.29*	*1.93*
Petrol super	*-0.13*	*0.32*
Sub-total	**-0.75**	**6.39**

Figure 3.4: Annualized Non-food Inflation

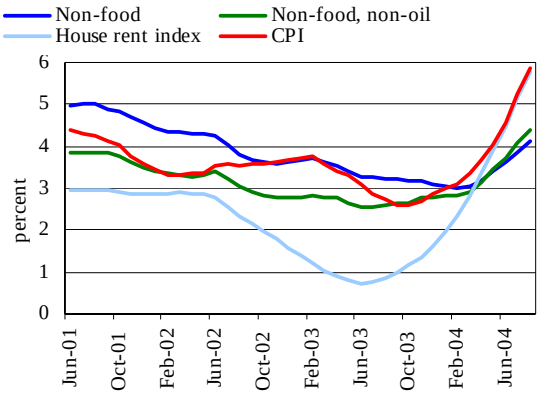
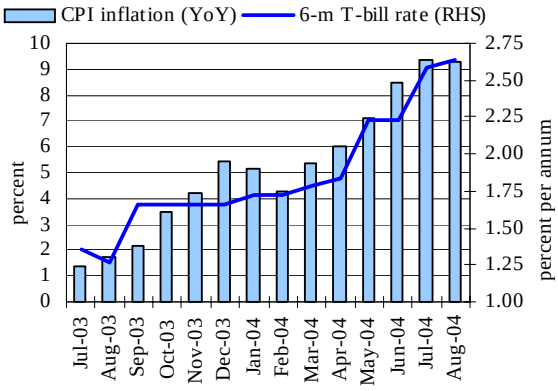


Figure 3.5: Inflation and Interest Rates



[3] This was because *non-food non-oil* inflation was used as a proxy for the "core "(or monetary policy induced) inflation – see **Box 3.1** for details.

[4] At least a *partial* impact of this concern is visible in the steepening rupee yield curve.

justified and especially so given the lags in the transmission of policy changes, and trajectory of inflation trends in the economy.

However, the SBP had also to be mindful of the potentially significant negative impact of a very sharp reversal in interest rates on the growth momentum of the economy. This trade-off between protecting growth and containing the rising inflationary pressures in the economy was further complicated by: (1) indications that inflationary pressures may prove to be short-lived, with a likely deceleration post-October 2004; and, (2) shifts in the credit cycle of the economy which raised uncertainty over the transmission mechanism of monetary signals. Both of these concerns indicated that a degree of caution was probably desirable in the SBP's response to the inflationary pressures. Accordingly, the SBP tempered its interest rate response, keeping it below market expectations. As a consequence, both the growth and inflation figures were above target in FY04.

This balancing act is expected to continue in FY05, but with the likelihood of monetary policy being increasingly driven by concerns over inflation, if the pace of upward momentum of the CPI remains unaltered. This is implicit in the SBPs monetary policy statement, which clearly indicates the SBPs concerns over the monetary overhang in the economy, and states the SBP would only seek to avoid a "significant" weakening of the economy.

3.3 Consumer Price Index

FY04 witnessed a sharp resurgence of inflationary pressures, with CPI inflation ending a seven-year downward trend (see **Figure 3.6**). After bottoming out at a all-time low of 1.4 percent in July 2003, marginal (YoY) CPI inflation witnessed a steep rise through most of FY04 to close at 8.5 percent, taking the average CPI inflation for the year to 4.6 percent (see **Table 3.4**).

While the rise in domestic CPI inflation was indeed influenced by international prices, the impact of these was mitigated, to an extent, through fiscal measures.[5] As a result, in contrast to trends in most regional economies, the rise in Pakistan's CPI inflation during FY04 largely stemmed from domestic sources, reflected principally in the leading roles of the *food* and *house rent sub*-groups respectively.

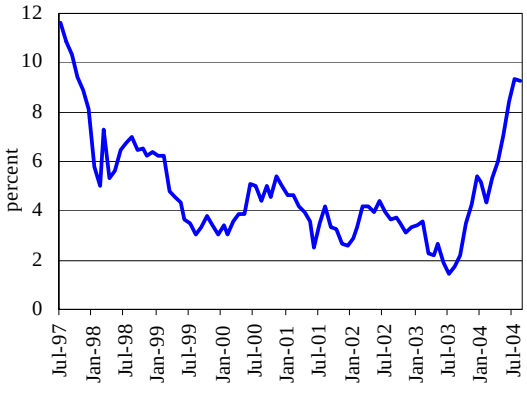
Table 3.4: CPI Inflation in June

percent

	weights	YoY - June[1]		Annualized[2]	
		FY03	FY04	FY03	FY04
Food & beverages.	**40.34**	**0.9**	**13.4**	**2.8**	**6.0**
Non-food	**59.66**	**2.6**	**5.3**	**3.3**	**3.6**
House rent	23.43	1.2	8.2	0.7	4.5
H/hold furniture	3.29	3.1	5.4	2.9	3.5
Apparel, text.	6.10	4.3	1.0	3.4	2.7
Fuel & light.	7.29	4.7	1.8	7.6	3.0
Transport & communications	7.32	2.0	7.4	5.3	3.4
Recreation entertainment	0.83	0.4	-1.0	0.9	-1.1
Education	3.45	4.9	2.4	4.7	3.9
Cleaning etc	5.88	4.3	4.3	4.8	3.7
Medicare	2.07	-0.8	1.8	3.1	1.2
CPI (general)	**100.0**	**1.9**	**8.5**	**3.1**	**4.6**

[1]: Change in June 2004 over June 2003.
[2]: Change in 12-month average in June 2004 over June 2003.
Source: Federal Bureau of Statistics.

Figure 3.6: CPI Inflation (YoY)

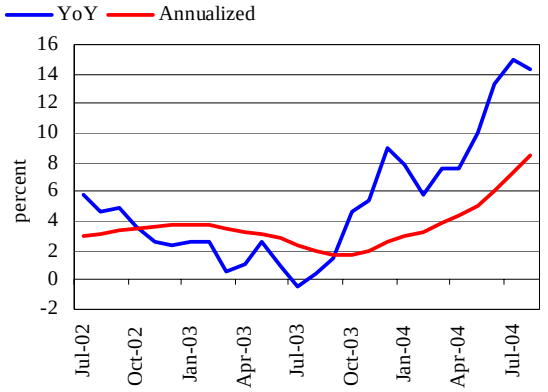


[5] For example, the impact of strong international steel prices was partially offset by the reduction in import taxes. Similarly the rising cost of *some* petroleum product imports was mitigated by the government's decision to absorb the higher cost through lowering implicit taxes. However, it is important to note that this was mainly affected for fuels prices; the increase in the cost of other petroleum derivatives such as lubricants, greases, etc. did impact the domestic economy.

3.3.1 CPI Food Group

CPI *food* price were very volatile in FY04; the year witnessed a deflation in food prices in July 2004 (on a year-on-year basis) before CPI food inflation rose to a 7-year peak in July 2004 (see **Figure 3.7**). The initial uptrend in CPI *food* inflation was largely due to the Government's announcement of a 16.7 percent rise in the support price for wheat. However, the subsequent acceleration in CPI *food* inflation October 2003 onwards was largely attributed to artificial supply shortages of wheat that were probably due to the realization that Government's capacity to intervene was hampered by depleted wheat reserves.

Figure 3.7: CPI Food Inflation



This view is reinforced by the visible decline in wheat prices during January and February 2004 (which led to a deceleration in CPI *food* inflation), ahead of anticipated arrival of imported wheat as well as the onset of the wheat-harvesting season. Unfortunately, this respite proved short-lived, as the imported wheat was rejected as it did not meet specifications, while simultaneously much of the 19.8 million tones domestic harvest was snapped up by the private sector buyers at premium prices. As a result of these developments the government's market intervention capacity worsened. Not surprisingly, wheat prices (and CPI inflation) moved strongly upwards thereafter.

The rise in wheat prices probably contributed significantly to an increase in inflationary expectations that, together with rising transportation costs and higher export prices, subsequently led to increases in the prices of a number of important food staples. In particular:

(1) A rise of 8.9 percent in milk prices in June 2004 over June 2003 also pushed up the CPI inflation since it has the largest share in CPI basket. In fact, the rise in milk prices is partially justified due to increased transportation and feed costs.

(2) The prices of beef and mutton continued to rise during FY04 on the back of strong external demand from Middle East and Afghanistan.

(3) It is interesting to note that over 9.0 percent of FY04 food inflation (YoY) is explained by the combined increase in the prices of onion and potatoes. The rise in the prices of these items appears to be the result of speculative hoarding, given that: (a) production of onion significantly increased by 11.7 percent during FY04; and (b) the production of potatoes registered a decline; nonetheless its crop is higher by 26 percent than the domestic requirements (see **Section 2.2.4** for details).[6]

3.3.2 CPI Non-Food Group

CPI *non-food* sub-group witnessed a YoY increase of 5.3 percent in June 2004, while annualized non-food inflation recorded a rise of 3.6 percent in FY04. CPI *non-food* inflation was quite benign before setting for an upward trend in March 2004 onward. The rising pressures mainly stemmed from sub-group of *house rent index* (HRI) (see **Figure 3.8**). The role of HRI was critical in accelerating the

[6] In the case of tomato, severe supply shock caused to raise its prices during FY04, the extent of this supply crunch was so acute that its average prices reached to Rs 32.6/kg in November 2003[6] compared with only Rs 11.5/kg in November 2002.

overall CPI inflation, as this component has a 23.43 percent weight in the CPI basket. Specifically, HRI rose by 8.2 percent on year-on-year basis in June 2004 compared with only 1.2 percent in June 2003.

Transport & communication, household furniture & equipment and *medicare* are the other components of non-food group which recorded an acceleration in inflation in June 2004. The rise in *transport and communication* inflation is a reflection of increase in the international oil prices. Although, the Government absorbed much of the rise in international oil prices, the partial rise in the prices of petroleum and related items and its impact is evident in the economy (see **Table 3.5**). It is also clear, that transport fares which were aggressively raised in the preceding year nonetheless witnessed a smaller rise in FY04 as well, while fares of trains and airfares saw a relatively larger upward adjustment in FY04.

Changes in the prices of all other sub-sectors witnessed a YoY slowdown, while *recreation and entertainment* sub-groups recorded a decline in the prices.

Figure 3.8: CPI Inflation (YoY)

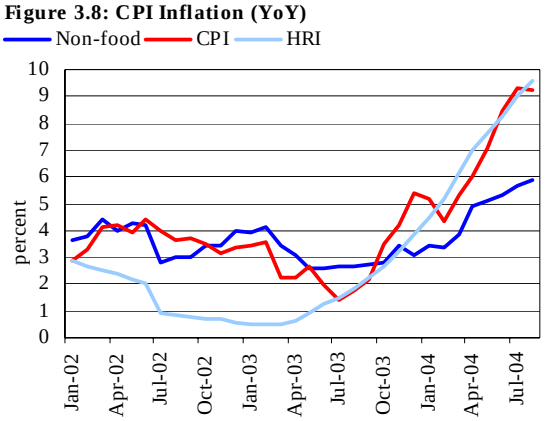


Table 3.5: Impact and Changes in Petroleum Prices

percent (YoY)

	Jun-03	Jun-04
Super (petrol)	31.3	18.3
High speed diesel oil	20.4	19.9
Kerosene oil	9.3	25.6
CNG filling charges	17.7	0.3
Minibus fare (range)	15.9 – 28.6	2.0 – 4.3
Bus fare (range)	3.7 – 15.1	5.8 – 8.8
Train fares range	0.3 – 1.8	12.5 – 37.9
Air fare economy	5.4	13.1

Table 3.6: WPI Inflation

percent

	YoY – June		Annualized	
	FY03	FY04	FY03	FY04
WPI general	4.4	12.8	5.6	7.9
Food	2.4	13.1	3.6	6.9
Non-food	5.8	12.5	7.0	8.6
Raw material	22.4	15.5	16.0	17.0
Fuel, lighting & lubricants	1.6	11.1	11.7	2.7
Manufacture	2.9	9.8	1.9	7.5
Building material	5.9	28.0	2.3	23.0

3.4 Wholesale Price Index

Unlike CPI, both *food* and *non-food* components of WPI witnessed a double-digit rise during June 2004 compared to a subdued inflation in the corresponding month in 2003 (see **Table 3.6**). More specifically, WPI recorded a YoY increase of 12.8 percent by end-FY04 with 12.5 percent rise in *non-food* component and a more pronounced rise of 13.1 percent in *food* component. The rise in *food* inflation is largely by the same factors that underpinned the rise in CPI inflation. However, a further analysis of *non-food* component reveals important insights.

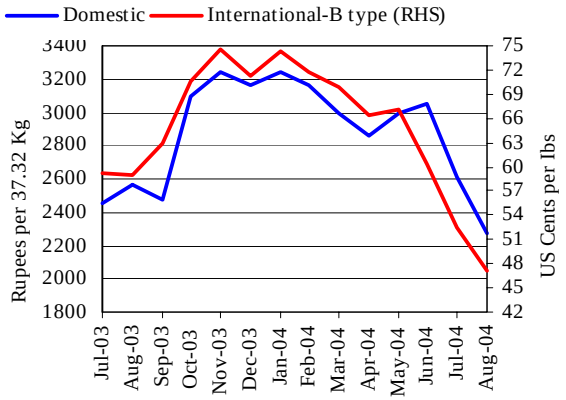
The highest YoY increase of 28.0 percent was registered by the sub-group of *building material* in June 2004. A number of factors are responsible for this sharp rise in building material sub-index:

(1) A substantial rise of 47.8 percent in the prices of iron bars & sheets in June 2004 over June 2003, mainly due to strong domestic demand and higher international prices. It may be noted that this rise was recorded after implementation of fiscal measures to offset the impact of increased international prices.
(2) Lower timber production and increased demand put upward pressures on its prices; as a result, timber prices rose by 35.0 percent YoY in June 2004.

(3) Prices of bricks rose by 17.8 percent in June 2004, on the back of increased construction activities and higher transportation costs.
(4) Pipe fittings also rose by 16.8 percent in this period, mainly due to rising metal prices. and,
(5) The 6.6 percent and 3.6 percent YoY jumps in the prices of *paints & varnishes* and *cement* in June 2004 also contributed in the rise of the *building material* sub-index.

The sub-index of *raw material*, which basically reflects the cost of industrial inputs, witnessed a YoY rise of 28.5 percent in December 2003 before declining to 9.4 percent in April 2004. These movements were largely due to cotton prices; domestic prices registered a YoY increase of 25.2 percent in June 2004, but declined after peaking in January 2004 (see **Figure 3.9**).[7]

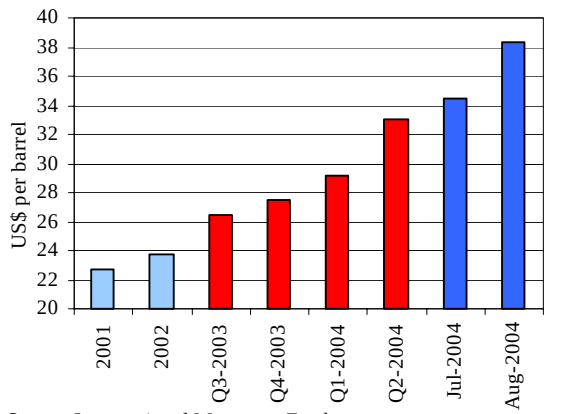
Figure 3.9: Cotton Prices



Another source of a sustained rise in the sub-index of *raw material* is a rise of 63.0 percent YoY in the prices of pig iron, which is largely attributed to increased international metal prices and strong demand amidst rising industrial activities in the country.

The WPI sub-index for *fuel, lighting & lubricants* registered an increase of 11.1 percentYoY in June 2004 compared to a negligible rise of 1.6 percent in June 2003. This substantial rise is largely explainable by the rising international oil prices; international spot crude oil prices jumped by about 37.0 percent during June 2004 (see **Figure 3.10**).

Figure 3.10: Spot Crude Oil Prices (Dubai)



Source: International Monetary Fund

While the government partially absorbed the impact of rising international oil prices on some products (diesel, furnace oil, petrol, etc), prices of other petroleum products, that have been deregulated were not similarly buffered.[8] Another item in the *fuel, lighting & lubricant sub-group*, coke, registered a substantial and unusual rise of 278.5 percent YoY in June 2004. This sharp rise in the domestic prices of coke largely attributed to strong and growing domestic and external demand for coke, as also evident from an increase in the quantum of export by 143.2 percent during FY04.

[7] The prevailing domestic prices in August 2004 are even lower than the August 2003 by about 11.6 percent. The major factor is a better cotton crop globally, which improved the stock-to-use ratio from 17.9 percent in cotton season 2003-04 to 33.0 percent for cotton season 2004-05.
[8] For example, lubricants, petroleum jelly, break oil, paraffin, wax etc.

Finally, the sub-index of *manufactures* showed an acceleration in both YoY and annualized terms. This sub-index witnessed a rise of 9.8 percent in June 2004 over June 2003. The major items contributing in this rise are cotton yarn, chemicals, fertilizers and footwear.

3.5 Sensitive Price Indicator

The sensitive price indicator consists of 53 essential items, mostly from *food* group. A sharp rise in *food* inflation during FY04 is thus more evident in SPI. Inflationary pressures are also evident from the fact that 24 items out of total 53 registered an increase of over 9.0 percent in the prices in June 2004, while 14 items witnessed a rise in their prices in the range of 2 - 8 percent. Only 7 items recorded a decline in their prices. **Table 3.7** shows that substantial increases were recorded in the case of mutton, onion, beef, wheat, flour, potatoes and fuel.

Table 3.7: Price Changes
percent (YoY)

	June 2004
Wheat	24.7
Wheat flour	26.5
Milk fresh	8.9
Mutton	33.4
Beef	29.0
Onion	77.3
Potatoes	59.9
Vegetable ghee	11.2
Chicken farm	13.5
Petrol	18.3
Diesel	19.9

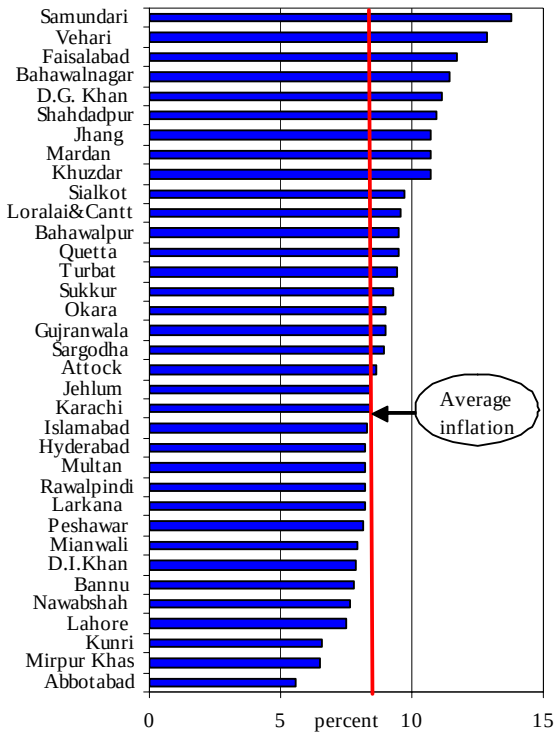
3.6 Incidence of Inflation

The concentration of inflation in *food* and other essentials also raises concerns over the impact on low income groups. People in the low income group (Rs 3000 per month or less) suffered 10.4 percent YoY inflation in June 2004 against the average CPI inflation of 8.5 percent YoY for the period (see **Table 3.8**).

Table 3.8: Incidence of Inflation (YoY) in June 2004
percent

	CPI	CPI -food
All income groups	8.5	13.4
Income upto Rs.3000.	10.4	15.1
Income Rs.3001 - 5000.	9.8	14.7
Income Rs.5001 - 12000.	8.8	13.8
Income above Rs.12000.	7.7	12.3

Figure 3.11: Inflation in Pakistan in June 2004 (YoY)



More importantly, *food* inflation for this income group at 15.1 percent in June 2004 is also substantially above the average of 13.4 percent. In contrast, high income group (Rs 12000 per month or above) faced an overall YoY inflation of 7.7 percent in June 2004, below the average inflation for the period. Similarly, food inflation for this group was also lower at 12.3 percent YoY in June 2004.

In terms of the regional distribution, inflation in most of the big urban centers was below the average during June 2004 (see **Figure 3.10**). For example, out of four provincial and one federal capital cities, only Quetta experienced above average inflation.

This disproportionately high incidence of inflation for low income group requires immediate and effective implementation of direct and indirect

price monitoring mechanisms (e.g. the Government may build up stocks of some basic staples) and also raises the question of the desirability of subsidized access of key staples.

Box: 3.1 Core Inflation

There can be many price indices available to monitor movements in the general price level in an economy, and often these are reported at regular intervals (and even simultaneously). However, only one of these is usually the benchmark for the conduct of monetary policy, and for general debate over inflationary trends in the economy. As in many countries, in Pakistan this benchmark is the Consumer Price Index (CPI) due to its coverage and reporting frequency.

The growth in the cost of living computed through changes in the CPI (known as CPI inflation), is based on the movements in the weighted average prices of a basket of 374 items. The resulting figure is thought to be representative of the changes in the price levels in the broader economy, and therefore is an important input for the formulation of monetary policy. However, since price changes in some items may be temporary, or may not respond directly to monetary policy, not every change in the CPI may require monetary policy adjustments.

Therefore, in order to better manage monetary policy, central banks in most countries focus more closely on '*core inflation*, which is computed using price changes for a sub-set of the CPI basket. The underlying assumption is that the core inflation figure excludes from the aggregate CPI inflation components that include short-term movements in prices due to temporary or seasonal supply shocks (e.g. crop failures), changes in administered prices, or abnormal circumstances, etc. that do not respond directly to monetary policy. Therefore, the remaining (or core) elements are those that are relatively 'permanent', and therefore core inflation is thought to show a long-term inflationary trend in the economy by excluding short-term volatility from the CPI inflation.

Thus, since by definition (literally) core inflation is more responsive to monetary policy than the broader CPI, it is this that is considered most relevant for the formulation of monetary policy.

In practice, different central banks are using different definitions of core inflation. Some central banks are even using more than one definition simultaneously to monitor underlying inflationary pressures in the economy (see **Table 1**). Thus it is pertinent to explain the different prevailing concepts of core inflation.

1. The most common method of computing core inflation is the *exclusion method,* wherein the CPI basket is adjusted for the commodities whose prices are volatile and usually do not responding to the changes in the monetary policy. Generally, food and energy items are excluded to derive core inflation.
2. The *trim method* is also commonly used. This excludes from CPI inflation the most volatile components (i.e. the change in which deviate the most, in terms of increases or decreases, from the mean value. The implicit assumption under this method is that the exceptional changes at both ends are likely to be *transitory* and dissipate in short-run, and thus should be excluded in policy responses. The trim ratio varies from country to country, depending upon the data generation process and historical level of inflation.
3. Statistical models are also used to compute core inflation. These can often be ARIMA models used to identify the permanent component of the inflation by exploiting the time series properties.

All of these methods have various advantages as well shortcomings, with all incorporating some degree of subjectivity in the definitions. **Table 1** illustrates the definitions used by various central banks, based on their economic environment and the composition of the respective prices indices.

Table 3.1.1: Measures of Core Inflation in Different Countries

No.	Country	Core Inflation Measure
1	Australia	CPI excluding mortgage interest payments, government controlled prices and energy prices
2	Brazil	20 percent trim mean
3	Canada	CPI excludes food, energy and the impact of changes in indirect taxes
4	Chile	CPI excluding 20 percent with negative variations and 8 percent with higher positive variations
5	Colombia	CPI excluding agricultural food, public services, and transport
6	France	CPI excluding changes in taxes, energy, food and regulated prices
7	Germany	CPI excluding indirect taxes
8	Ireland	CPI (ULI 1) less mortgage interest payments (MIPs), CPI (ULI 2) excluding MIPS and food & energy
9	Japan	CPI excludes fresh food
10	Korea	CPI excluding food and fuel
11	Malaysia	CPI excluding food and fuel
12	Mexico	CPI excluding fuels, fresh fruits and vegetables
13	Netherlands	ULI minus fruits, vegetables and energy
14	New Zealand	CPI excluding commodity prices, government controlled prices, interest and credit charges
15	Norway	CPI excluding electricity prices and indirect taxes
16	Poland	Set of three measures (CPI less officially controlled prices, CPI less prices with highest volatilities and a 15 percent trimmed mean)
17	Portugal	CPI (ULI) less unprocessed food and energy
18	Singapore	CPI excluding cost of private road transport and costs of accommodation
19	South Africa	CPI excluding certain food items, cost of mortgage bonds and certain indirect taxes
20	Spain	CPI excluding energy and unprocessed food
21	Thailand	CPI excluding fresh food and energy
22	United Kingdom	Retail price index excluding mortgage interest rates
23	United States	CPI excluding food and energy, weighted median (FRB Cleveland)

Sources: http://www.bsp.gov.ph/downloads/Primer%20Core%20Inflation.pdf
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