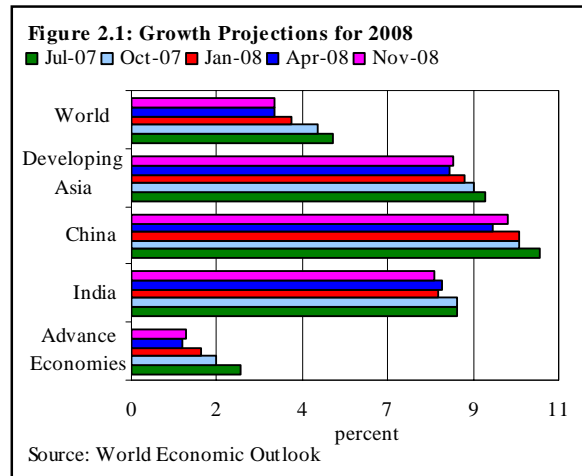


## 2 Economic Growth, Savings and Investments

### 2.1 Real GDP Growth

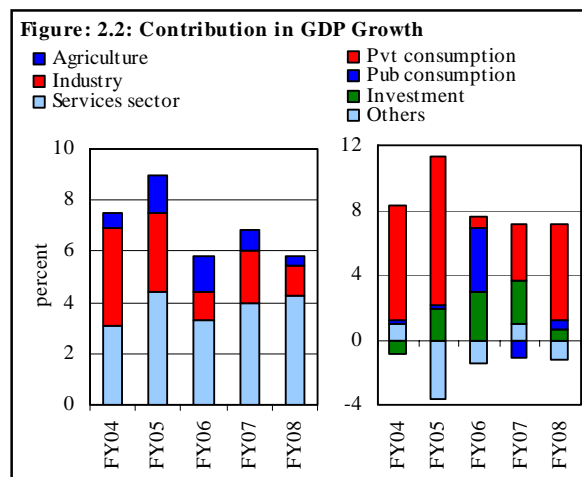
World economic outlook has been reasonably positive at the start of FY08, despite the rising commodity prices giving impetus to global inflation. This rise in prices, however, turned to be much higher than anticipated. The growth outlook was further clouded by the emergence of instability in the global financial system. Consequently, world output growth projections undergone successive reductions (see **Figure 2.1**).

In particular, the capital losses incurred from the sub-prime mortgage crisis necessitated a broad increase in risk aversion across the global financial system. In turn, this has raised significant risks of a more pronounced global slowdown. The growth outlook for the US economy has weakened significantly, with increased likelihood of a low or possibly even negative growth in the times ahead. Portents of a recession are also evident in the Euro region with a 0.2 percent contraction in output during Q2-FY08, for the first time in the history of Euro. While India and China continued with the robust growth, there are indications of a relative weakening in these economies, as 9.0 percent output growth in China during Q3-2008 is below expectations and the lowest in preceding five years.



Unlike many emerging economies, Pakistan has not seen substantial *direct* impact of the turmoil in the international financial markets in FY08. But indirect repercussions, together with the sharp rise in international commodity prices and other country specific developments, nonetheless proved damaging. Specifically, Pakistan's economic growth moderated significantly in FY08 due to a combination of domestic (e.g. energy shortages, some disappointing crop harvests, and rising political uncertainty) and external factors (including a rise in international commodity prices and lower capital inflows). As a result, the real GDP growth of 5.8 percent during FY08 was well below the target of 7.2 percent for the year (see **Table 2.1**).

An important contributor to the slowdown in GDP growth was investment demand in the country (see **Figure 2.2**); reflecting investors' cautious response to political uncertainty, law and order situation and inflation expectations. The FY08 contribution of investment demand in overall GDP remained the lowest in last four years at 0.7 percent. In contrast to a relatively balanced FY07 growth, the major impetus to FY08 growth came from a sharp rise in private consumption demand. This appears to have further strengthened inflationary pressures in the economy.



**Table 2.1: GDP - Sectoral Shares and Growth Rates**

percent, at constant prices of 1999-2000

	FY07		Growth targets	FY 08	
	Growth rates	Percent share		Growth rates	Percent share
<b>Commodity producing sector</b>	<b>6.0</b>	<b>47.9</b>	<b>7.4</b>	<b>3.2</b>	<b>46.8</b>
<b>Agriculture</b>	<b>3.7</b>	<b>21.8</b>	<b>4.8</b>	<b>1.5</b>	<b>20.9</b>
Crops	5.9	10.1		-1.1	9.5
Major crops	8.3	7.7	4.5	-3.0	7.1
Minor crops	-1.3	2.4	2.3	4.9	2.4
Livestock	2.8	11.1	5.7	3.8	10.9
Fishing	0.4	0.3	4.2	11.0	0.3
Forestry	-29.5	0.2	3.5	-8.5	0.2
<b>Industry</b>	<b>8.0</b>	<b>26.1</b>	<b>9.4</b>	<b>4.6</b>	<b>25.9</b>
Manufacturing	8.2	19.0	10.9	5.4	18.9
Large-scale	8.6	13.4	12.5	4.8	13.3
Small-scale	8.1	4.3	7.5	7.5	4.4
Slaughtering	4.1	1.3		4.2	1.3
Mining and quarrying	3.1	2.5	4.5	4.9	2.5
Construction	17.9	2.5	8.0	15.2	2.7
Electricity & gas distribution	2.5	2.1	3.0	-14.7	1.7
<b>Services sector</b>	<b>7.6</b>	<b>52.1</b>	<b>7.1</b>	<b>8.2</b>	<b>53.2</b>
Wholesale & retail trade	5.4	17.0	5.9	6.4	17.1
Transport storage & communication	6.5	10.2	7.8	4.4	10.0
Finance and Insurance	15.0	5.9	15.0	17.0	6.5
Ownership of dwellings	3.5	2.7	4.0	3.5	2.6
Public admin. & defence	9.1	6.2	4.0	10.9	6.5
Community, social & personal services	8.8	10.1	5.0	9.4	10.4
<b>Gross domestic product</b>	<b>6.8</b>	<b>100.0</b>	<b>7.2</b>	<b>5.8</b>	<b>100.0</b>

Source: Pakistan Economic Survey 2007-08

The impact of other adverse developments, principally energy shortages as well as capacity and input constraints was more visible in industrial sector performance. Similarly, the poor performance in major crops owed much to factors such as water shortages at critical sowing time, incidence of viral attacks, and a disproportionate rise in fertilizer prices, etc. The contribution of commodity producing sector to overall GDP growth in FY08 was lowest in the last six years.

The sharp slowdown in commodity producing sector and decline in investment demand during FY08 do not bode well for the output growth in subsequent years:

1. Data suggests that growth in commodity producing sector Granger causes growth in services industry (with lag of one year) (see **Table 2.2**). The sharp slowdown in former in FY08 therefore may hamper services sector growth going forward.

**Table 2.2: Causality Between Growth in Services & Commodity Producing Sectors (CPS)**

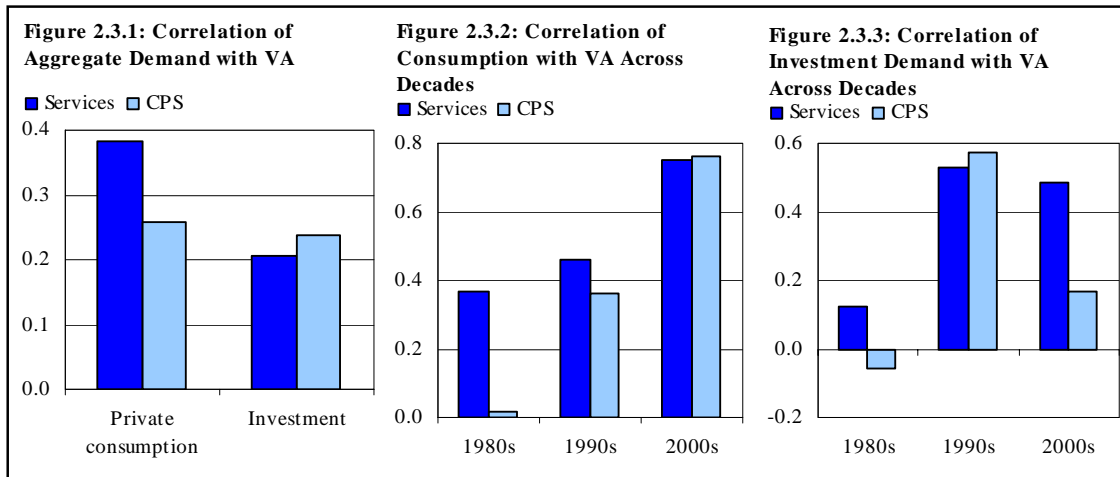
Sample: 1951 2008

Lags: 1

Null Hypothesis:	Obs	F-stat	Probab
CPS does not Granger cause services	57	3.39	0.07
Services does not Granger cause CPS		0.21	0.64

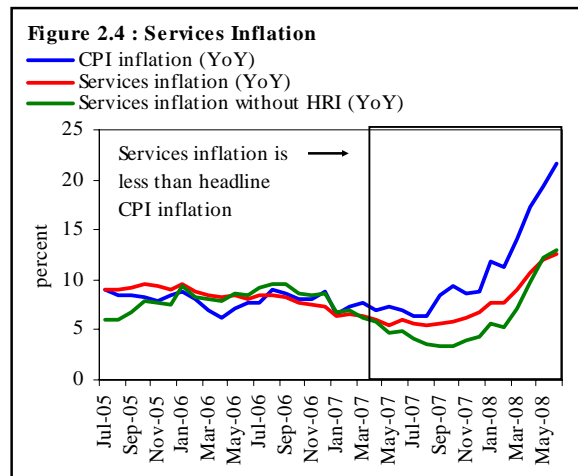
2. The growth in services as well as commodity producing sectors is highly correlated with the consumption demand (see **Figure 2.3**). It appears that given the recent trend of high inflation, high interest rates, tax increases and decline in corporate earnings, the consumption demand may ease

going forward. More importantly, the services sector inflation has also observed a steep rise in the closing months of FY08 (see **Figure 2.4**).



On the positive end, however, the sharp growth in investment in telecommunications and financial industries had a significant direct role in robust growth in services industry in the current decade. The impact of resultant productivity gains in commodity producing sectors should not be underestimated as well. Encouraging further investment will be critical for sustaining the recent growth trends.

In addition, relative consistency in growth achieved during FY04-FY08 as a result of capacity enhancement may gear up value addition in the years ahead. Increase in investment, both domestic and foreign, and capital imports may help in vertical integration of segregated industries, consequently impacting growth in the medium to long term. Data on real GDP and investment growth for Pakistan reveals that real investment growth Granger causes output growth after about 2 years (see **Table 2.3**). Calibrating recent upsurge in domestic and foreign investment, effect of growth in investment spending may realize in terms of growth in value addition (VA).



**Table 2.3: Causality Between Real Investment and Real GDP**

Sample: 1961 2008			
Lags: 2			
Null Hypothesis:	Obs	F-stat	Prob
RGDP does not Granger cause real investment	46	0.29	0.75
Real investment does not Granger cause RGDP		2.60	0.09

This view reinforces the fact that economic downturn in 1985-98 was caused by increased consumption and decreasing investment. Resultantly, on average, consumption constituted 86.1 percent of GDP in 1980s.<sup>1</sup> Investment exhibited persistent downturn throughout 1985-98 (see **Figure 2.5**), almost stagnated by FY98 before a strong recovery. Long run growth of Pakistan’s real gross

<sup>1</sup> Consumption to GDP ratio during 1985-1998 was 82.5 percent.

domestic product indicates that after a period of extended downturn (1985-1998) output has witnessed its longest period of recovery (1999 to date).

In view of the stated argument, despite temporary weaknesses, upward trend in the economic cycle is likely to be maintained for longer term. More importantly, sustaining above 6 percent growth is necessary to generate employment opportunities for the additional labor force and for effective reduction in poverty.

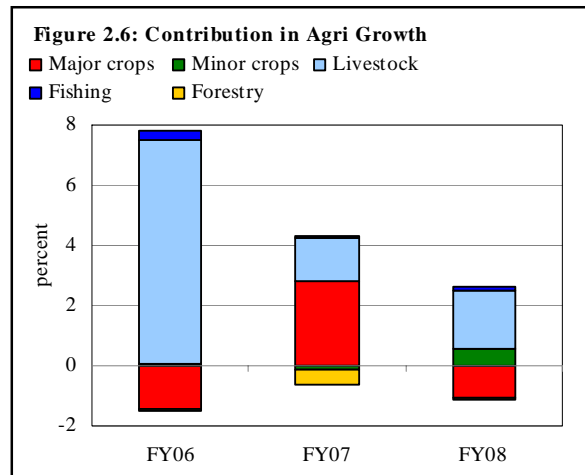
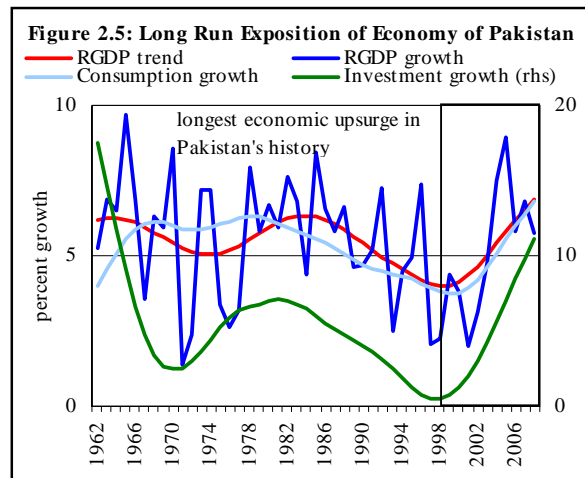
## 2.2 Performance of Agriculture Sector

A number of adverse developments hit agriculture sector to record a dismal 1.5 percent growth during FY08 (see **Table 2.4**). This is significantly lower than the 4.8 percent target for the year, as well as, the lowest growth since FY03. A weaker output by major crops overshadowed the record sugarcane harvest and relatively improved performance of minor crops; livestock and fishing sub-sectors during FY08 (see **Figure 2.6**).

A disappointing performance of major crops sub-sector is largely attributed to resource management issues and absence of a clear pricing policy. For instance, reduction in cultivated area under cotton, rice and wheat was a result of water shortages at sowing time. Delays in harvesting of cotton and sugarcane (mainly due to pricing issues), and lack of clear incentive signals (as government could not announce its pricing policy before sowing time) also resulted in area deficit for wheat crop. In addition, stubbornly high prices of fertilizers and pesticides also drained farmers to use appropriate agri-inputs; resulting in depressed yields by most of the major crops. Agriculture sector, however, benefitted from continued support through strong growth of institutional credit. A significant 25.3 percent rise in agri-credit during FY08 helped farmers to partly compensate the impact of high fertilizer prices.

Despite setback in major crops in FY08, prevailing high prices of agricultural commodities suggest that Pakistan, being an agrarian economy, to enhance earning potential of the farmers should focus on modernizing agriculture sector with greater emphasis on crop diversification and its value chains. This will not only help to meet domestic demand for food and fiber crops, but may also give sufficient exportable surpluses. Crop diversification experiments in major agriculture producing countries, for instance, crops for bio-fuel, suggest that Pakistan could also benefit from favorable global prices. The need is to improve price transmission mechanism to ensure that the benefits reach the farmers.

In federal budget FY09, some measures were announced including increase in subsidy on DAP fertilizer to promote balanced mix of fertilizers, exemption of excise duty on fertilizers and pesticides, increased allocation for maintenance of reservoirs and improve irrigation network to boost the agri-



sector productivity (see **Box 2.2.1**). The impact of these policies is likely to be complemented by introduction of crop insurance scheme initiated by SBP, to help farmers invest in their crops without fear of heavy losses.

**Table 2.4: Agriculture Sector Performance**

	Unit	FY05	FY06	FY07 <sup>R</sup>	FY08 <sup>P</sup>	Growth rate	
						FY07	FY08
<b>Value addition</b>							
Agriculture VA	billion Rs	1,027.4	1,092.1	1,132.0	1,148.9	3.7	1.5
<i>of which</i>							
Major crops	-do-	385.1	370.0	400.8	388.9	8.3	-3.0
Minor crops	-do-	126.0	126.5	124.9	131.0	-1.3	4.9
Livestock	-do-	484.9	561.5	577.4	599.2	2.8	3.8
<b>Crops production</b>							
Cotton	million bales	14.3	13.0	12.9	11.7	-0.8	-9.3
Wheat	million tons	21.6	21.3	23.3	21.8	9.4	-6.4
Rice	-do-	5.0	5.5	5.4	5.6	-1.8	3.7
Sugarcane	-do-	47.2	44.7	54.7	63.9	22.4	16.8
<b>Non-crops</b>							
Meat production	000 tons	2,238.0	2,515.0	2,618.0	2,704.0	4.1	3.3
Milk production (human use)	-do-	29,438.0	31,970.0	32,996.0	34,064.0	3.2	3.2
Fish production	-do-	574.0	599.0	578.0	640*	-3.5	10.7
Forest production	-do-	576.0	404.0	366.0	280.0	-9.4	-23.5
<b>Inputs</b>							
Improved seed distribution	-do-	214.0	253.9	284.8	266.3	12.2	-6.5
Fertilizer off-take	(million N/T)	3.7	3.8	3.7	3.6	-2.6	-2.7
Sale of tractors	(Nos)	43,578.0	48,802.0	54,052.0	53,203.0	10.8	-1.6
<b>Credit availability</b>							
Credit disbursement	billion Rs	108.7	137.5	168.8	211.6	22.8	25.3

R: revised, P:provisional

**Box 2.2.1: Agri-package Federal Budget FY09**

1. Agriculture package aims at reducing cost of production, increasing output, enhancing water availability and raising income of farming sector.
2. The budgetary proposals have been positive for farming sector in the form of higher subsidy of Rs 32 billion compared with Rs 25 billion last year.
3. Subsidy on DAP has been raised by 113.0 percent or by Rs 530 to Rs1,000/50kg bag, would reduce the price of DAP and encourage balanced use of fertilizers, in turn helping in enhancing crop yields.
4. Exemption of general sales tax on fertilizers and pesticides, would also boost demand for urea, DAP and pesticides.
5. Elimination of 5 percent excise duty on crop insurance to encourage crop insurance scheme.
6. Withdraw 10 percent customs duty on import of rice seed-enhances plantation of better seeds- increase rice yield.
7. Allow duty free import of bulldozers/laser land leveling technology- help improve water efficiency at farm gate.
8. Under White Revolution Program Rs.1.5 billion would be spent on dairy development.
9. Farm level income would increase on the back of higher market prices/demand.
10. Formal sector agri-credit disbursement increased, because of higher input demand/prices.
11. Allocated Rs75 billion for building new dams and improve the existing irrigation network-increase irrigation water availability.

If fully implemented the package would encourage, mix use of fertilizers, increase use of pesticides to cope with fast spreading disease, enhance grower confidence to earn/save more, improve water availability at farm gate and increase agri-production. All this will help increase production, export, boost economy and reduce poverty in rural economy.

## Fisheries

Improved performance of fisheries sector in FY08, owed to both marine and inland<sup>2</sup> fish catch, due to higher prices in domestic as well as international markets. This growth is remarkable as better feed and management for inland fishing offset the negative impact of water levels in reservoirs and rivers during the year. Fish production from marine also recovered well in FY08 and posted a respectable growth of 10.5 percent as against 7.1 percent decline in FY07 (see **Table 2.5**).

**Table 2.5: Fish Production and Value Addition**

	Unit	FY06	FY07	FY08 <sup>P</sup>
<b>Fish Catch</b>				
Marine	(000 MT)	380	353	390
Inland	-do-	219	225	250
<b>Total:</b>	-do-	<b>599</b>	<b>578</b>	<b>640</b>
<b>Value</b>				
Marine	(million/Rs)	3,731	3,470	3,836
Inland	-do-	12,809	13,136	14,595
<b>Total value addition:</b>	-do-	<b>16,540</b>	<b>16,606</b>	<b>18,431</b>

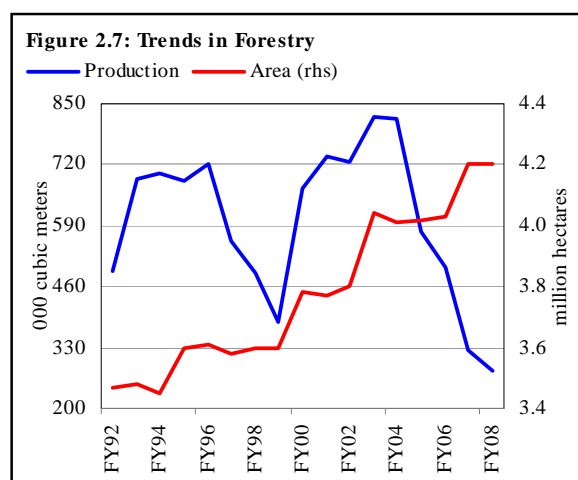
P: Provisional

Source: Documents of National Accounts, 2008

Pakistan needs to improve hygiene and environmental conditions in handling fish and its products, to increase its share in EU and Japanese markets. Surveys suggest that huge fishing potential is available in Pakistani territorial limits. Utilization of this, however, requires investment, research and introduction of suitable technology. Further, there is an urgent need to have a comprehensive long-term National Fisheries Policy for sustainable growth and management of fishery resources.

## Forestry

Value addition by forestry sub-sector declined for the fifth year in a row (see **Figure 2.7**). This continued disappointing performance is mainly due to massive deforestation - unabated cutting of trees and forests as well as poor law and order situation in Northern areas. As a result, timber and fire wood production from forests fell to 280 thousand cubic meters - lowest level ever. It is interesting to note that production of timber increased with the rise in area under forests until FY03. Since then, area has increased by 4 percent, but production fell by a massive 66 percent. The major reason of this delink is probably poor law and order situation coupled with strong local demand FY06 onwards due to massive reconstruction after October 2005 earthquake in affected areas. On the positive side, a gradual increase in the area under forest during last few years is likely to start paying dividends in the years to come. Therefore, a strong recovery is possible in forestry in coming years.



However, the share of both fishing and forestry is still not significant, and the aggregate value-addition in agriculture sector is driven principally by the crops and livestock sub-sectors.

## Major Crops

Although production of major crops dropped by 3.0 percent in FY08 compared with a strong 8.3 percent increase in the preceding year; sugarcane harvest registered an impressive growth of 16.8 percent and rice output also rose by 3.7 percent during FY08. The rise in sugarcane crop was principally a function of farmers' enthusiasm on the back of unanticipated higher prices realized in

<sup>2</sup> Includes, private farms, rivers, irrigation canals and reservoirs.

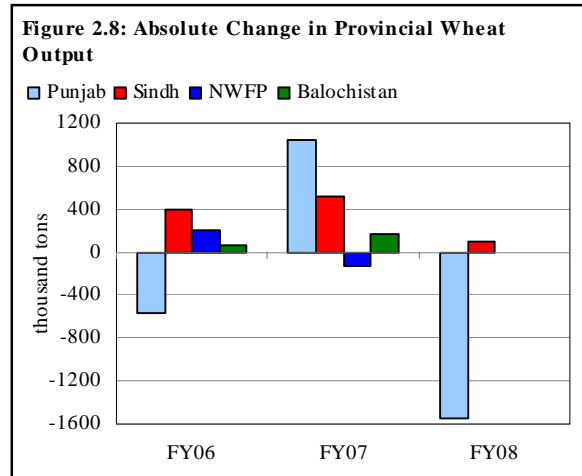
FY07 as well as favorable weather for the crop. Similarly, while area under rice declined, increase in yield helped register a positive growth in harvest.

Despite a fall in area, maize crop saw a record harvest of 3.3 million tons during FY08, up by 7.3 percent. Here too, farmers responded to rising domestic and international prices of maize. Given strong global demand for maize due to increasing use for bio-fuel production, the country can materialize substantial gains through rise in maize exports. Therefore, this crop could become an important source of export earnings in years to come.

Decline of 6.4 percent and 9.3 percent in wheat and cotton output, however, overshadowed the strong performance of other important major crops. Cotton crop suffered initially due to lower area under the crop due to water shortages, higher incidence of viral attack and mealy bug severely damaged the crop later.

A decline in wheat harvest in FY08 is principally attributed to reduction in area and lesser use of DAP fertilizer. Delayed start of sugar crushing season and cotton picking for extended time period caused reduction in area under wheat crop. More importantly, insufficient availability of irrigation water at sowing time, uncertainty about the returns (due to non-announcement of a support price for the FY08 crop) and higher fertilizer prices also discouraged farmers. This was particularly evident in Punjab, which contributes over 75 percent of the total wheat production in the country. Resultantly late sowing in some areas led to significant decline in yields. Particularly Punjab witnessed a decline in area under wheat and yield of the crop during FY08 (see **Figure 2.8**). In contrast, Sindh province registered a rise in wheat output during FY08 due to the combined impact of increase in area under wheat and improvement in yield (see **Table 2.6**).

Major wheat growing areas of Punjab (*Multan, Rahim Yar Khan and Khanewal*) witnessed reduction in area allocation for wheat crop. Given anticipated water shortages, absence of benchmark support price for wheat, farmers switched to crops that were less water intensive and yet offered good returns (due to high prices) such as sunflower and gram.



**Table 2.6: Basic Facts of Wheat Crop**

	FY05	FY06	FY07	FY08
<b>Area under Wheat Crop - thousand hectares</b>				
Punjab	6483	6322	6433	6265
Sindh	933	933	982	988
NWFP	721	743	754	754
Balochistan	310	309	409	403
Total	8447	8307	8578	8410
<b>Production - thousand tons</b>				
Punjab	17375	16811	17853	16300
Sindh	2509	2897	3409	3500
NWFP	1091	1294	1160	1160
Balochistan	638	706	872	870
Total	21613	21708	23294	21830
<b>Yield - Kgs per hectare</b>				
Punjab	2680	2659	2775	2602
Sindh	2689	3105	3471	3543
NWFP	1513	1742	1538	1538
Balochistan	2058	2285	2132	2159
Average	2559	2613	2716	2596

The impact of price incentives is also evident in cultivation patterns, as over the years farmers have switched over from one crop to another in anticipation of better returns (see **Table 2.7**). For instance, a record cotton harvest was achieved in FY05 in response to significantly high cotton prices in FY04.

A sharp fall in prices during FY05 discouraged farmers. Resultantly country had three consecutive declines in cotton harvest FY06 onwards. A significant surge in cotton prices in recent months is likely to motivate farmers to achieve higher productivity in FY09 by applying recommended quantum of fertilizers and pesticides. Similarly, lower than anticipated prices for sugarcane in FY08 and continued conflict with sugar mills is likely to substantially decline sugarcane output in FY09.

In this backdrop, to motivate farmers, incentive signals and supportive policies should be announced before the sowing time. This is particularly true for crops where the country could reap the benefits of higher international commodity prices through exports. The latter cannot be done without substantial productivity gains, increase in arable land as well as maintaining soil quality of the existing cultivable land. In order to encourage farmers for higher wheat plantation/harvests, the Government increased its support prices by 52.0 percent to Rs 950 per 40 kg for FY09 crop. While this policy measure is likely to have a positive impact on yield, 39.0 percent irrigation water shortage in *rabi* may offset some gains and wheat harvest is likely to fall in the range of 23-24 million tones.

### Minor crops

The combined value addition of minor crops registered a rise of 4.9 percent in FY08 as against 1.3 percent decline seen last year. Growth in minor crops responds to changes in prices; as farmers put extra efforts when prices of these crops are high to reap the benefits, which usually result in an above target performance and supply glut. Generally, a significant rise in supply of minor crops put downward pressures on the prices (see **Figure 2.9**); however, farmers were able to realize some benefits of high inflationary environment in FY08.

Production of pulses, vegetables, condiments, oilseeds, green fodder crops and non-citrus fruits registered increase during FY08 (see **Figure 2.10**). Part of these gains, however, were offset by a decline in citrus fruit output (kinno and orange – see **Table 2.8**). The decline in citrus fruits production is a source of concern given its adverse impact on the farm income and country's exports.

**Table 2.7: Shift in Planted Area of Major Crops**

(000 hectares)

Years	Wheat	Rice	Sugarcane	Maize	Gram	Cotton
FY02	-123	-263	39	-2	29	189
FY03	-24	111	100	-7	29	-322
FY04	182	236	-26	12	19	195
FY05	142	58	-108	35	112	204
FY06	90	102	-59	60	-65	-90
FY07	130	-40	122	-25	23	-28
FY08 <sup>E</sup>	-168	-66	212	-16	-270	-20

E: Estimates

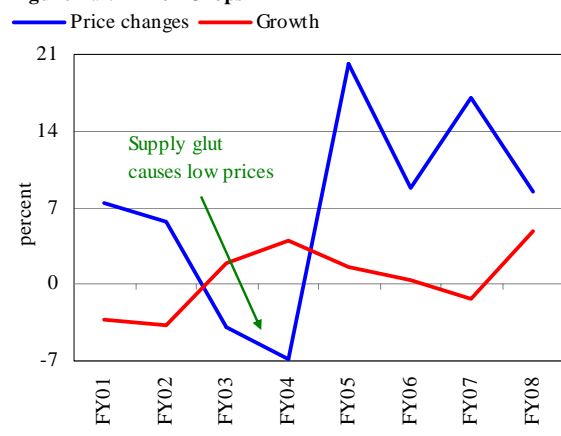
Source: MINFAL

**Table 2.8: Production of Fruit Crops**

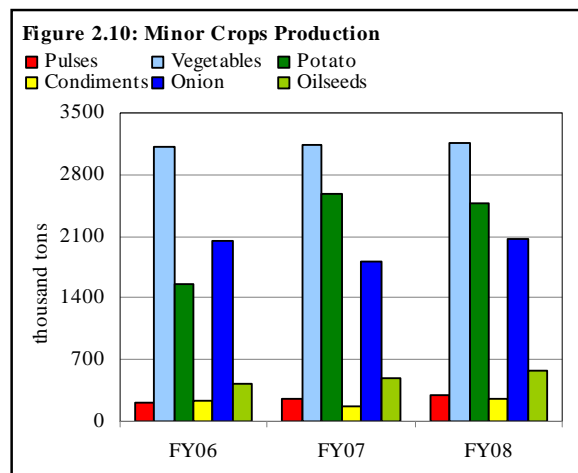
thousand tons

Crops	FY06	FY07	FY08
Citrus fruits	2,458.3	1,472.5	1,449.5
Other fruits	4,689.3	4,538.8	4,516.9
Total fruits	7,147.6	6,011.3	5,966.4
<b>Share (%)</b>			
Citrus fruits	34.4	24.5	24.3
Other fruits	65.6	75.5	75.7
<b>Growth (%)</b>			
Citrus fruits		-40.1	-1.6
Other fruits		-3.2	-0.5
Total fruits		-15.9	-0.7

**Figure 2.9: Minor Crops**



There is a need for supportive policies to minimize the incidence of diseases on citrus crop (such as citrus tristeza virus, citrus canker and recently reported mealy bug, etc.). Farmers' awareness and appropriate use of pesticides is also pre-requisite to increase productivity of citrus fruits in Pakistan. Similarly, other minor crops, onion, potato and pulses also fall victim to pest, viral and bacterial incidence, affecting their productivity. Effective control over plant diseases would help stabilize domestic prices through improved supply of minor crops by taking advantage of Pakistan's ecological conditions that largely suits various horticulture crops (see **Box 2.2.2**).



#### Box 2.2.2: Poinsettias-Plantation-Pakistan

Nature has blessed humanity with many gifts. Nevertheless, plants play an important role to magnify the glory of the Mother Nature. The living green specimens provide food, shelter, healthcare, joy, satisfaction and sophisticated pleasant environments. Poinsettia, is a shrub, which require semi-hot areas to grow, its plant may grow 10-12 feet under normal conditions. Pakistan is among the ideal ecological zones to produce poinsettias harvest and may be exported on good prices to Europe, USA and Canada. Plant generally, accepts weather variations with lot of adoptability nature, while plant prefers semi-hot summer and less cold winter. It has various colorful brackets ranging from white, red, rosy, yellow, bicolor variegated varieties. Plants can be produced both by seeds and vegetative means, best to plant by 15<sup>th</sup> January-first week of February, moved to sunny area till 15<sup>th</sup> August- sale/marketing in November and December. It needs moderate irrigation, avoid flooding soil must be dry before irrigation. Plant are risk to fungus disease root rot, may caused by over irrigation and high humidity with low transpiration and evaporation, can be controlled through use of disease free saplings. Best harvesting is an art, requires dark nights, 12-14 weeks with artificial black plastic sheets over the green g'house, may be removed on day time by 9'Oclock in the morning. Four to five colored brackets, with dark green leaves are ideal for sale in international market.

*A wild Mexican based plant (flower), generally known as Christmas plant with big demand in US and Canadian markets.*

#### Livestock

Value added by livestock sub-sector registered increase of 3.8 percent in FY08. Though lower than the target of 5.7 percent for the year, this was higher than 2.8 percent growth seen last year. A below target performance is principally attributed to slower growth in production of green fodder as well as declining nutrition in fodder,<sup>3</sup> and outbreak of bird flu virus in second half of FY08. Nonetheless, prevailing higher prices and continued strong domestic and external demand supported growth momentum in dairy and poultry sub-sectors.

At glance, growth in livestock sector remained subdued during recent years, with the exception of FY06, which was a census year and usually strong growth is reported in the census year. In fact, a

**Table 2.9: Livestock Holding Patterns**

Production Pattern	1987*	2006**
<b>A. Buffaloes &amp; Cattle</b>		
- Rural subsistence small holdings	62.0	50.0
- Rural market oriented small holding	33.8	45.2
- Rural commercial farming	0.4	0.6
- Peri-urban commercial dairying	3.8	4.2
<b>B. Sheep &amp; Goats</b>		
- Nomadic	6.0	4.5
- Transhumance	31.7	30.2
- Sedentary / household	62.3	65.3

\*: FAO, \*\*: Census, 2006

Source: Livestock and Dairy Development Board

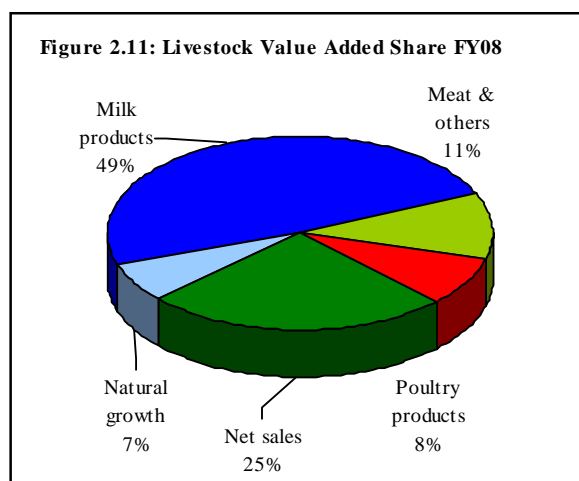
<sup>3</sup> Major Fodder: Rabi, (Winter) Berseem, Lucerne, Oats, Rye grass and Kharif, (summer) Sorghum, Sadabahar, Maize, Mott grass, Cow peas, Bajra/Millet.

below 3 percent growth in four out of five years is clearly inadequate to meet the growing domestic consumption demand on the back of increasing income levels and population.

Consequently, on one hand, prices of dairy products and meat are increasing; on the other hand, country is importing substantial quantum of meat and dairy products. The major constraints limiting livestock production includes: (1) inefficient use of grazing land (only 28 percent of available grazing land resources are being utilized) (2) low yield of milk and meat (3) incidence of bird flu and other diseases (4) nutrient decay in fodders (30 percent lower than normal level) (5) non-existence of organized livestock markets in smaller towns and rural areas (6) lack of infrastructure and extension services (7) use of conventional methods instead of modern technology (8) smallholders are still dominating livestock holding (see **Table 2.9**) (9) barriers in access to institutional credit (only around 11 percent of total agriculture credit goes to livestock) (10) low investment-by public and private sectors (11) losing domestic genetic potential (12) mix-up of meat and milk animal species, and (13) poor law and order situation around pasture fields.

Livestock sector has a great potential for investment having large domestic market and opportunities for export to Middle East and other regions.

This sector offers opportunities for investment. Public sector investment is needed in infrastructure and provision of veterinary services to improve productivity and mitigate risks particularly for small dairy farmers. Private sector investment in modernization of dairy farms, storage, processing units (milk processing, etc.), packaging, hydration, transportation and marketing will help increase value addition by this important sector. In particular, milk is the major output of livestock sector. It accounts for 5.3 percent value addition to GDP, 25.5 percent to agriculture and 48.8 to livestock. Milk contribution is the largest in livestock growth, followed by net sales; meat, poultry products and natural growth (see **Figure 2.11**). Pakistan is one of the largest milk producing country, but only a small portion of total production is being marketed for urban consumption and commercial processing. Lack of proper storage facilities, poor road infrastructure, inadequate transport facilities and high overhead costs put upward pressures on prices of dairy products. The major issue in dairy is relatively low yield of milk and meat in the country (see **Table 2.10**). Productivity needs to be enhanced to narrow demand-supply gap with focus on animal health<sup>4</sup>-creation of awareness among the farmers for taking preventive measures-proper prophylactic measures- and support disease reporting system. Improvement in breed, feed and living condition is also mandatory to increase livestock productivity. A SWOT analysis for livestock is placed at **Box 2.2.3**.



**Table 2.10: Milk and Meat Yield Comparison**

Items	Average (Pakistan)	Elite animals (Pakistan)	Developed countries
Milk Yield (kg/305 days)	1800	3500	6500
Meat Yield (kg/carcass)	191	250	293

Source: Livestock and Dairy Development Board

<sup>4</sup> Common animal diseases are: Fever, Depression, Ocular and Nasal discharges, Oral erosions, Diarrhoea, Pneumonia and Conjunctivitis.

**Box 2.2.3: A SWOT for Livestock/Meat Sector**

**Strengths**

- A low input production system prevails, with less veterinary products used.
- The large size of national herd.
- The population is growing fast and meat supply cannot keep pace.

**Weaknesses**

- The nondescript breeds in the country are inefficient meat producers.
- The production base involves small farmers with practically no contract animal rearing and farming to enhance quality control and sanitary measures.
- Nutritional and feed shortages are prevalent.
- There is a lack of processing facilities.
- Health hygiene awareness poor.
- Weak SPS regulatory framework.
- Poor enforcement of SPS laws.
- Inefficient disease control and quarantine.

**Opportunities**

- New markets for *Halal* meat Malaysia and Indonesia.
- Domestic and foreign private sector investment interest.
- The establishment of feed lots and fattening yards attached to slaughterhouses.
- Donor support to manage SPS issues.

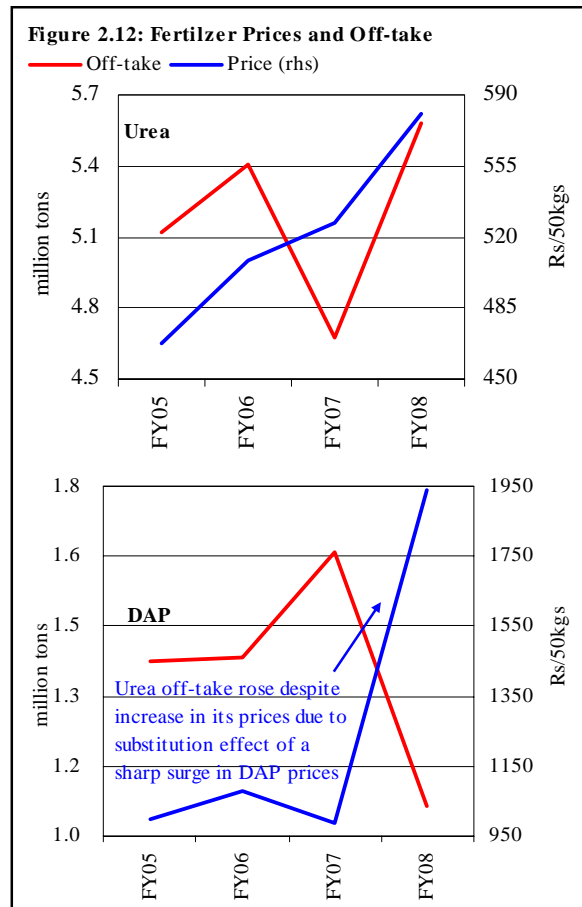
**Threats**

- Loss of existing markets through competition and their introduction of better quality and safer meat products.
- Imports, particularly from India.
- The introduction of exotic diseases.

**Fertilizer**

During FY08, overall fertilizer off-take increased by 7.9 percent in contrast to 7.4 percent decline seen last year (see **Table 2.11**). The increase is mainly attributed to an impressive rise of 20.1 percent in urea off-take, largely a substitution effect. This strong growth in urea off-take has also offset the 27.4 percent decline in DAP off-take in FY08 (see **Figure 2.12**).

Despite a strong domestic demand, local production is unable to meet the fertilizer requirement (particularly of DAP) and necessitating imports. The domestic prices are largely sensitive to changes in international prices due to dependency on imports (see **Figure 2.13**). The rise in DAP prices in FY08 is a case in point. It principally reflected the substantial increase in international prices of a key raw material phosphate due to supply constraints and strong demand in response to higher prices of agri-produce. On the other hand, increase in the domestic prices of urea was relatively muted as main raw material resource of urea i.e., natural gas is available at lower price. Given persistent requirement of DAP to increase yields, it is imperative to design an attractive fertilizer policy especially for DAP to boost domestic production.



It is evident that use of a recommended balanced mix of nutrients for higher yields was not achieved in FY08 as nitrogen off-take increased and phosphate and potash decreased. Realizing the importance of balanced nutrition, and following the steep increases in global prices of phosphate and potash fertilizers, the federal government has enhanced total fertilizer subsidy up to Rs 32 billion, increasing DAP subsidy by 137 percent. After the current revision, subsidy on DAP would reach Rs 1,000 per 50-kg bag.

At the same time, the recent surge in domestic gas prices (5.5 percent in January and 31 percent in June 2008) are likely to push up the prices of urea. In addition, soaring international prices of phosphate and potash fertilizers will partially offset the impact of subsidy. However, the sales tax on fertilizer has been abolished which will provide some comfort to farmers. In addition, access to institutional financing with 15 percent increase in agri-credit target for FY09 will encourage farmers to use a balanced mix of both DAP and urea.

It is a fact that a rise in agricultural production in recent years in Pakistan has been achieved through higher yields. One of the underlying factors is increased use of fertilizers. Increase in the fertilizer consumption in Pakistan from about 20 kg per hectare in early 1970's to 162.5 kg/ha in FY08 has resulted in many fold increase in the yield. This fertilizer consumption, however, remains low compared to 250kg /ha in Northern Europe and 170 kg in India. Increase in food production is possible with a less than proportional rise in balanced fertilizer nutrients with better farm management practices.

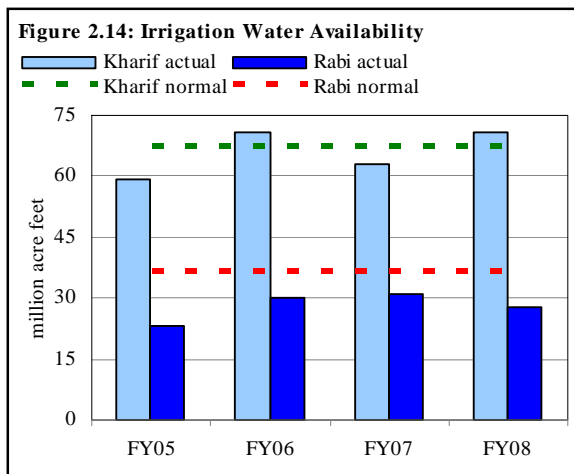
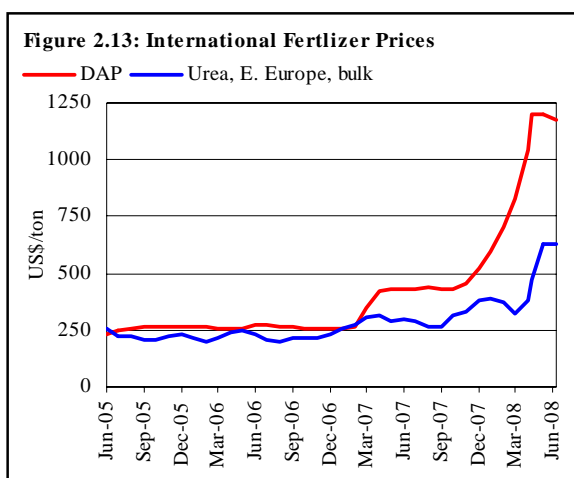
### Irrigation Water

Marked by surpluses at the start the water situation turned critical in the closing months of FY08. Kharif FY07 started off with 1.5 million acre feet (MAF) surplus carry forward from the closing rabi FY07 due to more than normal winter rainfall (see **Figure 2.14**). The water shortage, however, intensified in rabi FY08 due to absence of early winter rains. The water shortages particularly during the wheat sowing period caused reduction in area under wheat crop.

**Table 2.11: Fertilizers Off-take**

(m/tons)	FY06	FY07	FY08
Urea	5.41	4.68	5.62
DAP	1.38	1.61	1.17
Total	6.79	6.29	6.79
<b>Growth (%)</b>			
Urea	5.7	-13.5	20.1
DAP	0.0	16.7	-27.4
Total	4.5	-7.4	7.9
<b>Share (%)</b>			
Urea	79.7	74.4	82.8
DAP	20.3	25.6	17.2

Source: NFDC



Fall in the precipitation in monsoon by 42.2 percent (Jul-Sept) and 67.8 percent fall in winter rains (Jan-March) during FY08 (see **Figure 2.15**), as against the same period last year, mainly caused 4.8 MAF deficit in the storage required for irrigation during FY08. Negligible winter rains made little difference to wheat plantation in Rabi FY08 as the canal operations were halted or heavily rationed due to less water in the reservoirs.

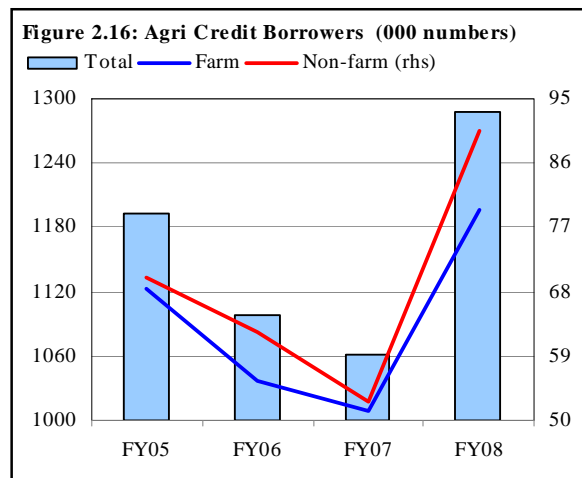
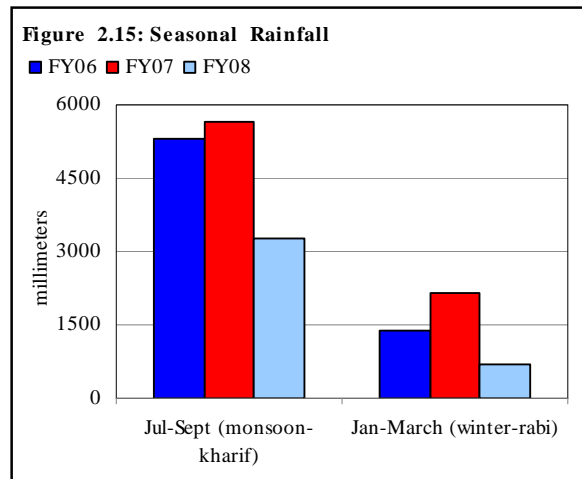
The water deficiency in rabi FY08 continued in kharif FY09. According to estimates by the Indus River System for kharif FY09, the water inflow and reservoir storage benchmarks were below the target through much of the first phase (April 1 – June 10); picking up gradually in the second phase of kharif FY09 (June 11 to September 30). Further, IRSA estimates suggest that water shortfall will be in the range of 32- 39 percent during *rabi* FY09. The water shortage may adversely impact key *rabi* crops.

The situation in kharif FY09 was not encouraging at the onset when the water availability was at its all time low. The major developments during that period were the April FY08 rains and extraordinary glacial melt that enabled enough water in the reservoirs to continue canal operations necessary for the crucial plantation period for the two kharif crops rice and cotton.

Given the crucial role of water in agriculture productivity, it is imperative to enhance irrigation water availability at farm gate with: (1) efficient use of available resources-improvement in present reservoirs and canal system (2) capacity enhancement-desalting, brick/cement-lining of canal/watercourses (3) use of laser land leveling technology-increases water and inputs efficiency (4) stop water theft (5) cut down of accidental losses-breaches, damages by buffalo swimming etc. and (6) improve power supply in major cropping districts-enable growers to run tube wells. More importantly, there is a need to develop high yield, less water intensive seeds of major crops by using the latest techniques of genetic modification.

### Agriculture Credit

Growth in agri credit recovered in FY08, after a relative slowdown in the preceding two years. The agri credit disbursements rose to Rs 211 billion in FY08, up by 25.4 percent (see **Table 2.12**)<sup>5</sup>. The domestic private banks fared well both in disbursements and in the recoveries while specialized banks could not maintain their market share. A strong resurgence in the number of borrowers is also a welcome development during FY08. The number of borrowers increased to 1.28 million during FY08 as against a declining trend in the previous three years (see **Figure 2.16**). Despite, rise in interest rates amid monetary tightening, a significant increase in agri credit and number of borrowers during FY08 is principally attributed to



<sup>5</sup> Agri credit disbursement target for FY09 is set at Rs. 250 billion.

surge in the agri input prices as well as farmers enthusiasm on the back of substantially higher prevailing prices of agri produce.

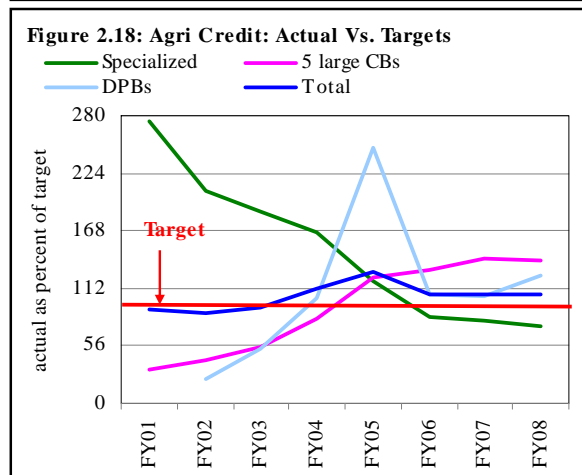
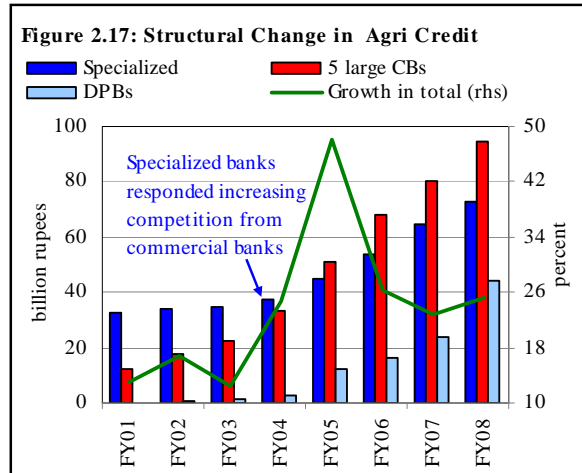
It is interesting to note that agri credit market emerged as an important segment in the financial sector since FY01. Not only a gradual increase in the share of commercial banks in agri credit is remarkable, in response of increasing competition, specialized banks have also responded aggressively and their lending operations also rose tremendously in recent years.

**Table 2.12: Agri Credit Trends**  
billion Rupees

	Disbursement			Recoveries			Net Credit		Outstanding	
	FY07	FY08	% change	FY07	FY08	% change	FY07	FY08	FY07	FY08
<b>Commercial banks</b>	<b>104.4</b>	<b>138.7</b>	<b>32.9</b>	<b>95.6</b>	<b>124.9</b>	<b>30.7</b>	<b>8.7</b>	<b>13.8</b>	<b>71.7</b>	<b>83.2</b>
Five large commercial banks	80.4	94.7	17.9	76.7	88.4	15.2	3.6	6.3	53.7	57.6
Domestic private banks (DPBs)	24.0	43.9	83.3	18.8	36.4	93.8	5.2	7.5	18.1	25.6
<b>Specialized banks</b>	<b>64.7</b>	<b>72.9</b>	<b>12.7</b>	<b>60.6</b>	<b>67.0</b>	<b>10.5</b>	<b>4.1</b>	<b>5.9</b>	<b>75.5</b>	<b>85.4</b>
ZTBL	56.5	66.9	18.5	54.1	60.6	12.1	2.4	6.3	66.7	75.3
PPCBL	8.0	5.9	-25.7	6.5	6.3	-3.1	1.5	-0.4	8.8	10.0
<b>Total</b>	<b>168.8</b>	<b>211.6</b>	<b>25.4</b>	<b>156.2</b>	<b>191.8</b>	<b>22.8</b>	<b>12.7</b>	<b>19.8</b>	<b>147.2</b>	<b>168.6</b>

Similarly, entry of DPBs completely transformed the dynamics of agri credit market (see **Figure 2.17**). In both the contribution in growth in agri credit disbursement as well as in recoveries, DPBs dominated for yet another year in FY08.

Another interesting change in agri credit is a consistent above target disbursement in recent years (see **Figure 2.18**). It is in sharp contrast with the experiences of direct credit regime when commercial banks could not achieve mandatory credit targets. It reinforces the view that market based approach and competition produces efficient outcome. Interestingly, actual disbursement as percent of target is hovering around 105 during preceding three years. It is mainly due to the fact that while five large commercial banks and domestic private banks disbursed significantly higher than the targeted amount, the relatively weak performance of specialized banks is offsetting the impact of these achievements. It reflects that despite a continued increase in agri credit disbursement by the specialized banks, allocation of indicative targets was optimistic. It suggests (1) further revamping is needed to make these institutions competitive, and (2) allocation of targets for these institutions should be on lower side.



### Purpose-wise Credit

Production related disbursements increased sharply to Rs 149.3 billion amid rising agri input prices; accounted for 93.5 percent of the total disbursement to farm sector in FY08 as compared to 93.1 percent in the preceding year (see **Table 2.13**). Similarly, share of disbursement for development purposes also increased from 5.6 percent in FY07 to 6.3 percent in FY08. The simultaneous increase in the share of both has been achieved at the cost of a significant decline in disbursement for corporate financing, despite a sharp jump in number of borrowers under this head.

**Table 2.13: Number of Borrowers and Purpose-wise Agri-credit Disbursement**

Sectors	Number of borrowers in thousand					Amount in million Rupees				
	FY06	FY07	FY08	% Change		FY06	FY07	FY08	% Change	
				FY07	FY08				FY07	FY08
Farm sector	1,036.4	1,009.1	1,197.1	-2.6	18.6	115,408.0	139,491.0	159,676.0	20.9	14.5
Production*	1,000.5	978.9	1,160.2	-2.2	18.5	105,144.0	129,875.0	149,329.0	23.5	15.0
Development**	35.9	30.2	36.8	-15.8	21.8	9,407.0	7,756.0	10,031.0	-17.5	29.3
Corporate	0.005	0.014	0.075	180.0	435.7	857.0	1,860.0	316.0	117.0	-83.0
Non-farm loan***	62.4	52.7	90.4	-15.6	71.6	22,029.0	29,339.0	51,885.0	33.2	76.8
Total agri-sector	1,098.8	1,061.8	1,287.5	-3.4	21.3	137,437.0	168,830.0	211,561.0	22.8	25.3

\*: Include seeds, fertilizers, pesticides etc.

\*\* : Include land develop., tractor, machinery etc.

\*\*\*: Livestock, poultry, forestry and fishing.

More encouraging is the rise in developmental loans during FY08, in contrast to a decline in FY07. The rise is principally driven by higher disbursement for tractors and godowns/cold storages. A surge in financing for the latter pushed up its share in total developmental loans from a negligible 0.8 percent in FY07 to 5.1 percent in FY08. This is indeed a welcome development since investment in storage facilities would improve farmers' ability to bargain and reap the benefits of higher prices. However, given intense farming, application of fertilizers and pesticides, a decline in developmental loans for land improvement and farm machinery is a source of concern. In particular, investment in land improvement is necessary to enhance yields. Similarly, increased use of farm machinery is also needed to improve yields and reduce wastages.

Agriculture credit disbursement in non-farm sector witnessed a healthy growth of 76.8 percent during FY08 compared with 33.2 percent in FY07. The major impetus to this growth came from strong demand from poultry sub-sector in the preceding two years. As a result, share of poultry in non-farm agri credit rose from only 27.6 percent in FY06 to a dominating 60.6 percent by FY08. Similarly, livestock sub-sector also saw a robust 58.4 percent growth in FY08 compared with 13.8 percent in the preceding year. It is, however, important to note that while the average loan size for livestock is 100 times smaller than the poultry, its impact on income of landless farmers and poverty reduction is far greater. Thus, more efforts are needed to increase the quantum of credit towards livestock sub-sector.

### Recoveries

The overall recovery to disbursement ratio declined from 92.5 percent in FY07 to 90.6 percent in FY08, principally driven by relatively poor performance of ZTBL. The decline in recovery ratio is not surprising given a negative growth of major crops. In particular, ZTBL is probably also hit by declaration of emergency in some flooded areas during Q1-FY08. Despite these adverse shocks, an improvement in the recovery ratio of DPBs is encouraging and shows that expansion in their lending operations though aggressive is based on commercial viability. In addition, well supported recovery drive yields better results.

### Economic Classification of Borrowers

While small farmers (subsistence farm holders) remained the dominating class in terms of both number of borrowers and amount, their relative share declined in FY08. In contrast, share of large farmers (above economic holdings) in aggregate farm credit is increasing at a rapid pace. This trend suggests; (1) there is a need to further increase the outreach of financial services to small farmers by extending institutional network and by removing bottlenecks in obtaining bank credit such as absence of clear land titles, and (2) since small farmers could not afford farm mechanization, thus prospects of increase in productivity and reduction in wastages are dim. In these circumstances, bank lending to group of farmers instead of individual farmers may promote collective or cooperative farming that surely help the economy.

In production loans out of total 1.16 million borrowers recorded in FY08, there were 1 million borrowers classified as subsistence farmers. Majority of loan applications were filed for the major crops (0.84 million) with vegetable farming operations also attracting about 0.17 million borrowers.

In the non-farm sector, livestock and dairy sector were the main beneficiaries with loans equally divided between the small and large farm applicants. Out of 81 thousand borrowers of the livestock and dairy sector, 79 thousand borrowers in FY08 had smaller livestock farms. The majority of the livestock sector applicants sought loans for development activity suggesting increase in the livestock and dairy sector infrastructure. That upsurge was directly related to the initiatives undertaken by the federal and provincial governments in promoting the sector (see **Box 2.2.4**). On average, disbursement to livestock farmers was in the range of Rs 0.2 million per applicant.

#### Box 2.2.4: White Revolution Initiative

The white revolution initiative under the auspices of Pakistan Dairy Development Board seeks to achieve an annual milk production of 40 million liters by 2015; in the process generating 3 million jobs. The initiative includes model farms, provision of dairy farmer getting the requisite credit to carry out improvement of unit livestock. The major thrust is to have about 6330 chillers of different capacities to be provided to the farmers through soft loan facility. The board anticipates that an additional two billion liters of milk can be added to the mainstream supply lines through that.

Currently Pakistan stands at the fourth number with 33 million liters of milk produced annually. About 63 percent of the weighted value is concentrated in Punjab followed by 23 percent in Sindh, 12 percent in NWFP and 2 in Baluchistan.

Increase in the number of borrowers in livestock sector in FY08 is encouraging when compared with the declining trend witnessed during the last three years (see **Table 2.14**).

Trends in poultry sector suggest that while number of borrowers is declining, disbursement is increasing. The increase in disbursement is a function of increasing requirement for working capital as well as investment in controlled sheds for higher productivity. According to one estimate, weight of broiler

**Table 2.14: Non-Farm Borrowers**

	Livestock & dairy	Poultry	Fishery	Others	Total
<b>FY05</b>	62,210	2,588	248	4,977	70,023
<b>FY06</b>	53,313	2,196	325	6,561	62,395
<b>FY07</b>	44,164	1,994	583	5,946	52,686
<b>FY08</b>	81,597	1,510	1,145	6,168	90,420

is about 6 percent higher in controlled sheds with lower mortality rate with the same variable cost structure. Decline in the number of borrowers, however, is a concern, since poultry industry is a rare example of perfect competition. A larger number of suppliers with the same cost structure and access to resources would help further growth in this sub-sector. In the fish farming sub-sector, there were encouraging signs regarding the number of borrowers that crossed one thousand marks in FY08. It shows that more farmers are turning to transform their premises into fish ponds for farm based fish production. It is also evident in a strong 11.1 percent growth in inland fishing during FY08 compared with 2.7 percent in FY07.

### 2.3 Industry

The domestic industrial sector muddled through a mix of major economic, political and structural setbacks throughout FY08. While the aggregate demand had already seen some relative moderation in the preceding year, rising fuel and commodity prices and intensifying energy shortages in the country further obstructed FY08 industrial activities. The heightened political uncertainty and law and order issues during the year also took their toll. As a result, the provisional estimates place the FY08 industrial growth at a slackening 4.6 percent compared with 8.0 percent in FY07 (see **Table 2.15**).

The sharpest weakening was seen in electricity and gas distribution activities. (See **Figure 2.19**) This sub-sector registered a decline during FY08 mainly on account of losses incurred by the power companies.<sup>6</sup> However, major blow to industrial activities came from a six-year low growth in manufacturing sector (given its largest share in the industry). Construction sector growth, though moderated, remained strong; whereas a high growth was seen in mining & quarrying sub-sector during the year.

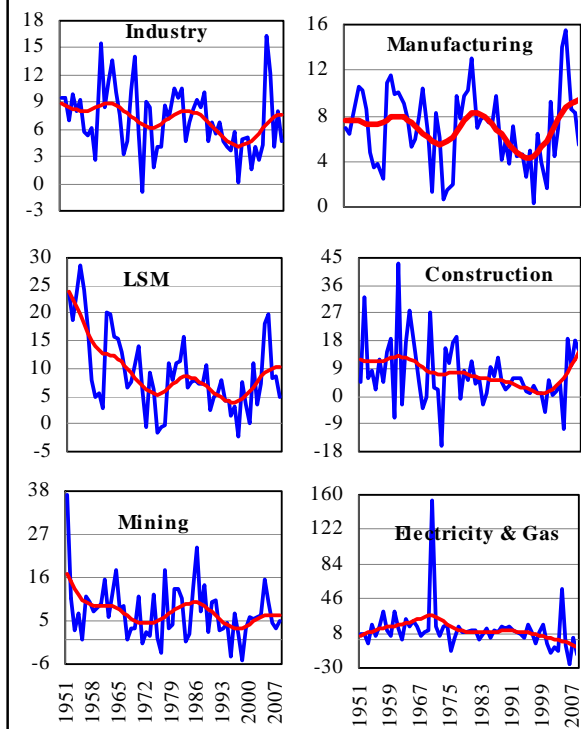
A detailed analysis of the industrial sector data provides useful insights:

- (1) Other than construction sub-sector, all the industrial sub-sectors performed below their long-term trend in FY08. Though moderating demand played its part in slowing down the industrial activities; supply shocks also took their toll. Except for mining & quarrying, all sub-sectors witnessed a relative slowdown.
- (2) The current trend (FY00 onwards) in manufacturing and construction sector has become the largest boom in the history. Not only is it the largest in terms of magnitude, but also the longest in terms of duration. Still at the end of FY08, it does not suggest peaking out of the cycle though some moderation can be seen. The current boom in mining and quarrying, however, appears to have peaked out in FY08 as the long-term growth flattens. This peak however, is visibly lower than the peak observed in late 1980s. Although, the sector promises huge potential for growth; the deteriorating law and order situation in Balochistan province avoids a positive assessment of sector's outlook.
- (3) Another important observation is the rising volatility across years in the industrial growth. However, a closer look at the data suggests that on excluding the most volatile sub-sector, i.e.,

**Table 2.15: Growth in Industrial Sector**

	Annual Growth		Contribution to Industrial Growth	
	FY07	FY08	FY07	FY08
<b>Industry</b>	<b>8.0</b>	<b>4.6</b>		
Mining & Quarrying	3.1	4.9	0.3	0.5
Manufacturing	8.2	5.4	5.9	3.9
Large-scale	8.6	4.8	4.4	2.5
Small-scale	8.1	7.5	1.3	1.2
Slaughtering	4.1	4.2	0.2	0.2
Construction	18.0	15.2	1.5	1.4
Electricity & Gas	2.5	-14.8	0.2	-1.2

**Figure 2.19: Long-term Growth Trend in Industrial Sub-sectors (percent)**

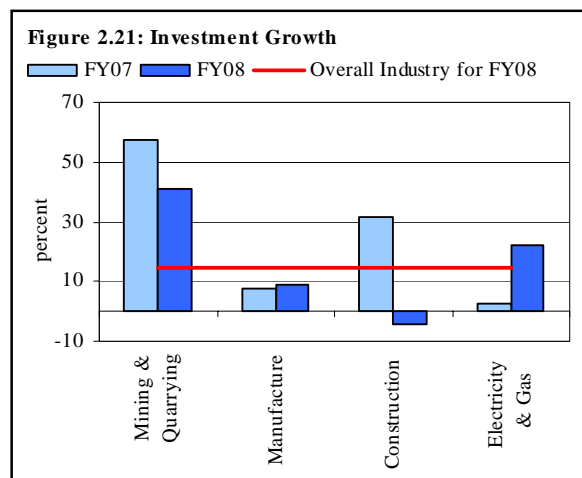
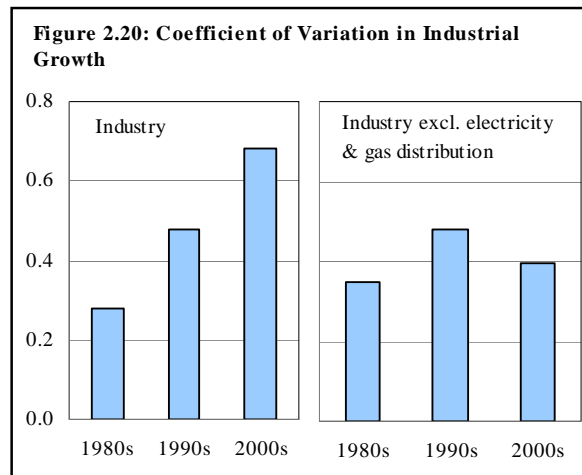


<sup>6</sup> On excluding this sub-sector, the industrial growth increases to 6.3 percent.

electricity and gas distribution, the volatility appears to be declining in the current business cycle (see **Figure 2.20**). Indeed, the declining volatility in most of industrial sub-sectors is attributed to the consistent business policies, rising investors' confidence and sound monetary policy measures over the years.

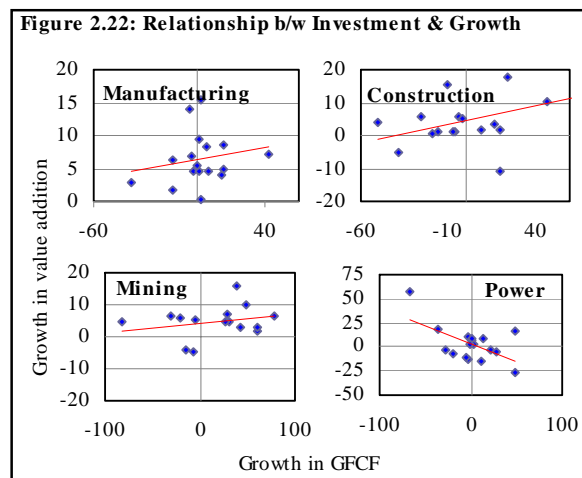
- (4) The rising macroeconomic imbalances as well as political uncertainty have lowered the investors' confidence which resulted in a four-year low growth in investment in industrial sector (see **Section 2.5**).

However, an important aspect is the disproportionate rise in investment across sectors during FY08. Construction sector that contributed most to the FY08 industrial growth failed to attract sizable investment during the year. As such, investment to GDP ratio in construction sector declined in FY08 (see **Figure 2.21**). On the contrary, power sector with a negative value addition during the year grabbed the major chunk of industrial investment. However, given the weak relationship between investment and value addition in power sector (in contrast with other sectors), a rebound in power sector cannot be assured in subsequent years (see **Figure 2.22**).



### Construction

The trend of a robust growth in construction sector continued in FY08 as well and much for the same reasons; public sector development spending on infrastructure and strong private demand for residential and commercial properties. However, rising prices of construction material (see **Figure 2.23**) and a slowdown in housing finance by commercial banks may adversely impact the performance of construction sector going forward. In addition, given a high correlation of growth in investment and value addition in the sector, a sharp decline in investment in FY08 suggest slowdown the construction activities going ahead.



### Mining & Quarrying

After registering a deceleration for three consecutive years, mining and quarrying sub-sector showed a sizable recovery. A large part of this recovery was led by increase in production of crude oil and gas. High crude oil production was mainly due to commissioning of new oil fields at Mela-1, Pasakhi NE,

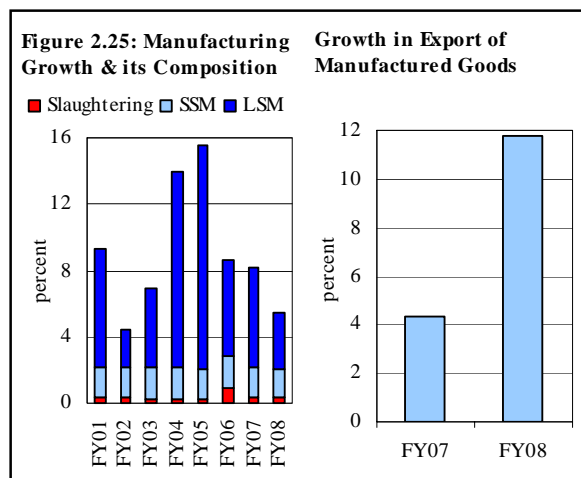
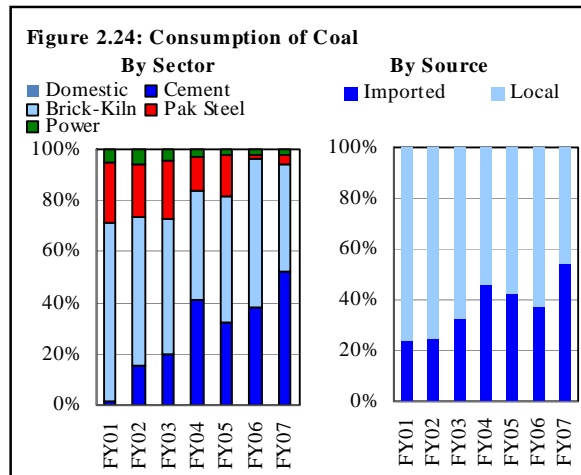
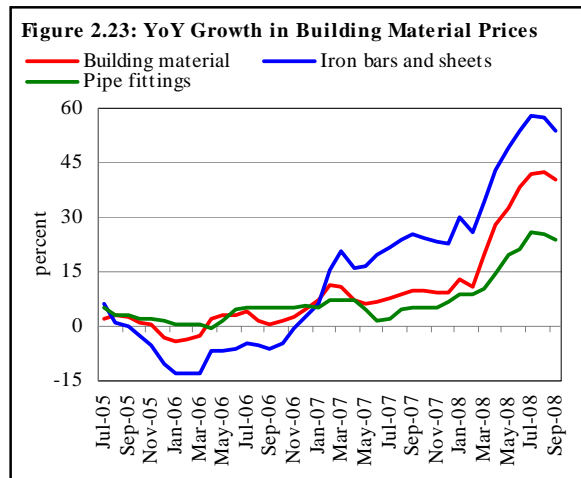
Chak-66 North East-1, Moolan North-1 coupled with increase in production from Kunnar, Bobi and Tando Alam fields. Oil field at Adhi saw increase in crude oil production mainly due to expansion activities that doubled the production.

However, a part of improvement in crude oil and gas production was offset by slowdown in exploration of coal and limestone. While the growth in limestone remained robust, the decline in coal production for the second consecutive year is indeed a bad news for local cement industry. Specifically, the use of coal in cement industry has increased manifolds in recent year and cement has become one of the major consumers of coal in the country (see **Figure 2.24**). However, the recent decline in coal production has increased dependence on imported coal from only 32.3 percent of total consumption at end FY01 to 63.2 percent by end FY07. Due to this high import dependency, domestic industrial sector has become increasingly vulnerable to sharp increase in international coal prices in FY08.<sup>7</sup>

**Manufacturing**

Manufacturing sector growth continued to decline for the third consecutive year and posted a six-year low growth during FY08. Most of the slowdown was seen in large scale manufacturing (LSM)<sup>8</sup> as small scale manufacturing (SSM) decelerated only slightly (see **Figure 2.25**). Similar to FY07, the deceleration in LSM reflects a relative moderation in domestic demand, power and gas outages as well as capacity and input constraints in certain industries. However, unlike FY07, the external demand for domestic manufactured goods increased in FY08.

In particular, intermediate goods accounted for most of the slowdown in LSM, given their largest weight in the index (see **Table 2.16**). The slowdown was mainly evident in cotton ginning, yarn manufacturing, metal sector and fertilizers production. Since intermediate



<sup>7</sup> The payments on coal imports reached US\$ 396.2 million during Jul-Apr FY08; showing a growth of 96.7 percent over Jul-Apr FY07.

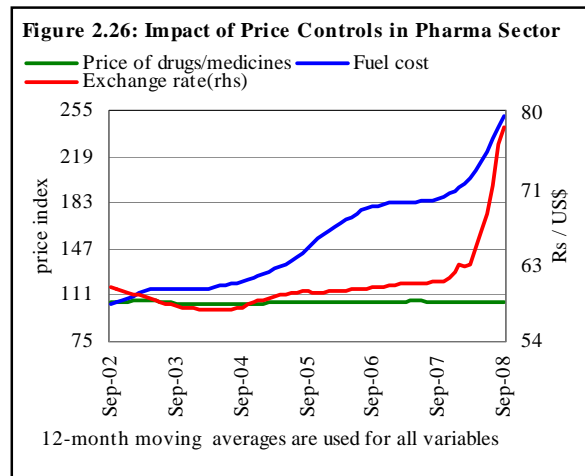
<sup>8</sup> LSM production growth has declined by 6.2 percent during first quarter of FY09.

goods are essential items in the start of supply chain of production; a slowdown in local production of these goods meant an increase in import of these items during the year. Consumer durables industries also decelerated sharply mainly due to an increase in prices and rise in interest rates on consumer financing for the purchase of automobiles and electronics. In contrast, production of capital goods registered a decline in FY08 principally driven by a fall in transformers production. Excluding this industry from the group, capital goods manufacturing exhibit a robust growth. Where the growth in most of capital goods suggests sustained business confidence; it also led to an increase in import demand in the country (see **Box 2.3.1**). Finally, consumer non-durables sector posted a strong growth in FY08.

**Table 2.16: LSM Growth by end-User**

	Adj. weights	FY06	FY07	FY08
<b>Capital goods</b>	<b>3.05</b>	<b>23</b>	<b>0.2</b>	<b>-8.6</b>
Capital excl transformers	2.29	35	-12	9.2
<b>Intermediate goods</b>	<b>51.41</b>	<b>3.6</b>	<b>9.1</b>	<b>2.6</b>
Intermediate excl textiles	29.52	1.5	8.5	3.4
<b>Consumer goods</b>	<b>45.5</b>	<b>10.6</b>	<b>9.7</b>	<b>7.5</b>
Durables	6.11	24.9	12.2	0.8
Non-durables	39.38	5.2	8.6	10.6
Non-durables excl. sugar	33.86	6.5	8	7
Durables excl. Jeeps & cars	2.74	20	12.3	5.8

The growth in consumer non-durable sector was mainly due to an increase in sugar production and high growth in pharmaceuticals sector. The growth in sugar production owed entirely to a bumper sugarcane crop as well as improved recoveries.<sup>9</sup> On the other hand, the impressive growth in pharmaceutical sector is attributed mainly to introduction of new molecules in the market as well as increased demand. However, pharmaceutical companies are craving for revision in regulatory structure to sustain the strong growth. Specifically, the retail prices of pharmaceutical products have been fixed for the last seven years. On the other hand, the production cost of pharma manufacturing has increased manifold (see **Figure 2.26**) given (1) Rupee depreciation (since domestic industry relies largely on imported raw material); (2) increase in transportation and energy costs; (3) increase in price of paper/packaging; and (4) increase in wages and salaries.



**(1) Structural weaknesses explaining a large part of manufacturing slowdown**

The poor FY08 LSM performance appears an outcome of structural weaknesses in the economy.

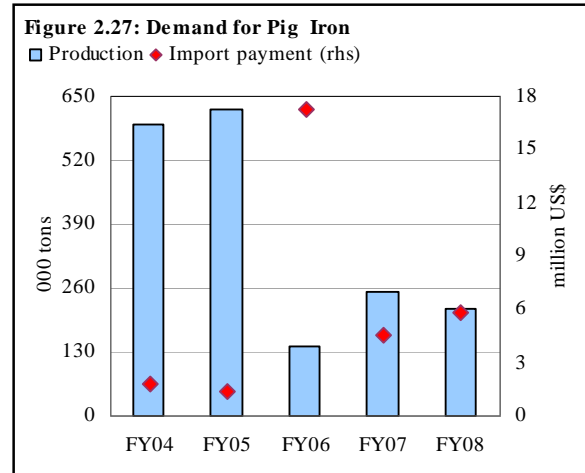
**(a) Energy constraints**

The foremost concern is the present energy crisis that has seriously stifled the manufacturing activities in the country. In fact, growth in energy supply could not keep pace with the rising demand due to sharp increase in manufacturing activities in recent years. According to an estimate, businesses lose 5.6 percent in annual sales revenue owing to power outages in Pakistan against a reported loss of 2 percent and 8.4 percent to Chinese and Indian counterparts respectively. Indeed, the energy deprivation not only makes a high industrial growth in the long-term unsustainable: it also increases the import burden on the economy.

<sup>9</sup> Recoveries of sugar from sugarcane increased in Punjab to 8.8 percent in FY08 from 8.4 in FY07, in Sindh to 9.2 percent from 9.1 percent. However, recovery of sugar decreased to 7.7 percent from 8.2 percent in NWFP during this period.

For instance, the intensifying energy constraints in the country did not allow *steel* producers to operate smoothly. As a result, steel production declined despite strong construction activities in the country. Automatically, the remaining demand was filled through imports as seen from a rise in import of pig iron (see **Figure 2.27**).

Furthermore, manufacturing activities in a number of other units including textiles, chemicals, pharmaceuticals, etc., also reported to have been affected from power outages. Paper and paper board is another sector where the production was constrained by disruptions in gas availability amid strong demand. Anecdotal evidence, however, suggests that manufacturing companies met the demand through increased use of inventories. As such, inventory turnover ratio of these companies increased in FY08. Indeed, this is extremely a short-term solution. If domestic production will suffer due to energy constraints, it would result in lower exports (for export led industries such as textiles), higher imports (for metal, paper etc.) and higher unemployment and inflation.



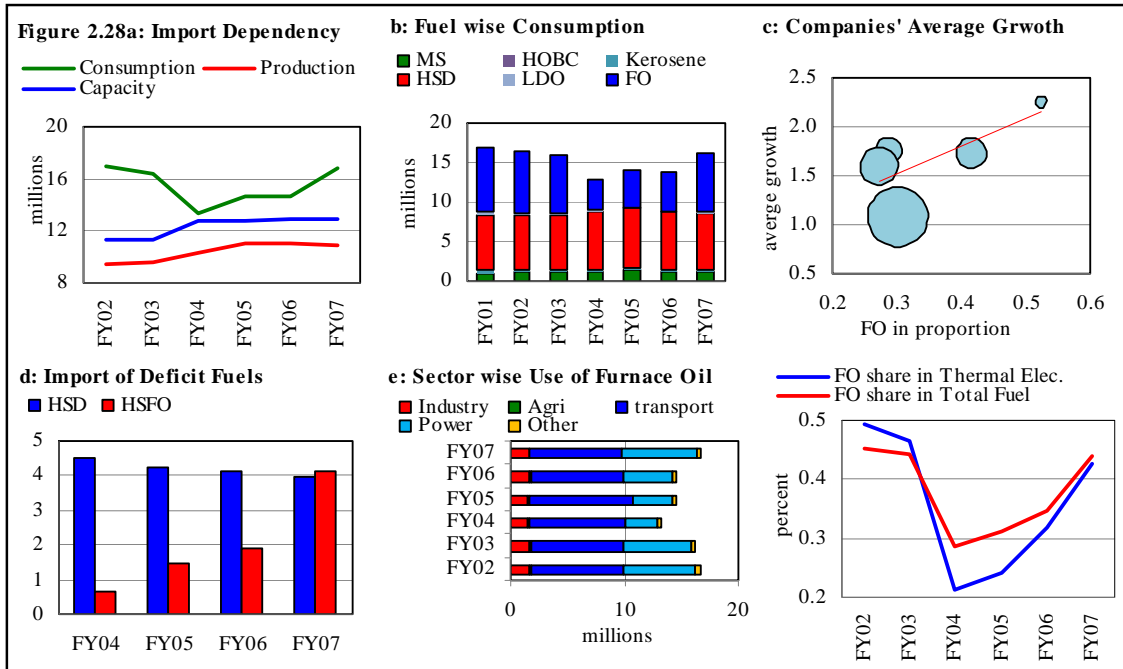
#### (b) Capacity constraints

Capacity constraints hitting some industries and new plants are needed to meet the growing domestic demand. Fertilizer industry is one such example. Although the production of urea increased marginally by 4.1 percent during FY08 (against the net decline in production during FY07); it was significantly lower than the 22.5 percent growth in urea off-take during the year. This was mainly due to capacity constraints, temporary closures for BMR and more importantly curtailment in supply of natural gas to urea plants during the year. As a result, fertilizer companies sold the existing stocks in the market causing a sharp depletion in inventories. Given the limited availability of gas in the country and a dismal inventory situation, country will import urea during FY09. Here again, an anemic growth in gas production in recent years have held further investment in the sector.

Similar capacity constraints can be observed in petroleum refining sector. Despite the sharp growth in consumption of POL products in recent years, the production capacity as well as actual production grew only marginally. The relatively higher growth in FY08 production was mainly due to base effect as well as productivity gains as one of the large refineries was closed for BMR up-gradation for 28 days in FY07.

Following points explain the dynamics of the yawning demand supply gap in POL sector:

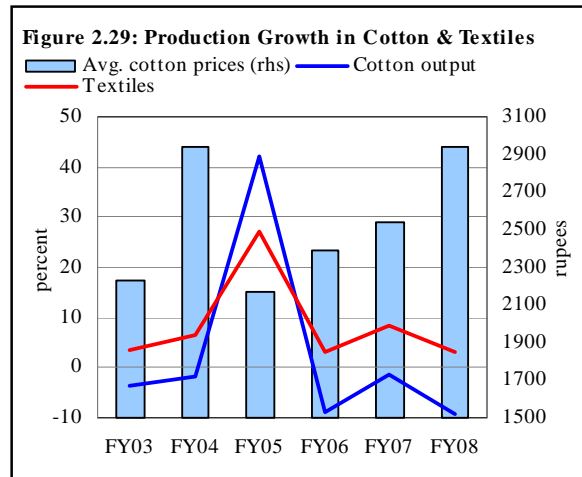
- Of the 6 local refineries, two refineries with 35 percent share in total installed capacity are already producing POL products at full capacities. Another large refinery with 16.3 percent is operating at 95 percent of its installed capacity. Local refineries are unable to meet domestic demand due to these capacity constraints, which resulting in sharp growth in imports.
- While the consumption of all POL items remains unchanged over the years, it is the increase in consumption of furnace oil that led to an overall increase in POL consumption.



- The increase in demand for furnace oil is confined to thermal electricity generation as its consumption by other sectors remains more or less unchanged (see **Figure 2.28**). The substitution of use of furnace oil over natural gas in the electricity generation explains increasing demand.
- Local refineries, on the other hand, produce POL products in fixed proportions. The analysis suggests that the POL production of companies with high proportions of furnace oil posted highest average growth rate in recent years.

**(c) Input constraints**

Another major concern is the availability of key inputs. It appears that sectors that rely more on agro-based inputs observe quite a volatile growth pattern. Specifically, the four-year low cotton harvest in FY08 was the sharpest blow not only to textiles growth but for the entire LSM growth during the year. The above assessment stems from the fact that 80 percent of textile production is export-based and the 60 percent growth in textile exports of Pakistan is explained by domestic cotton production.<sup>10</sup> The dismal textiles performance was mostly reflected in cotton ginning activities that declined for the third consecutive year. Moreover, the contamination issues with available cotton have also marred the export competitiveness of domestic textiles (see **Figure 2.29**).



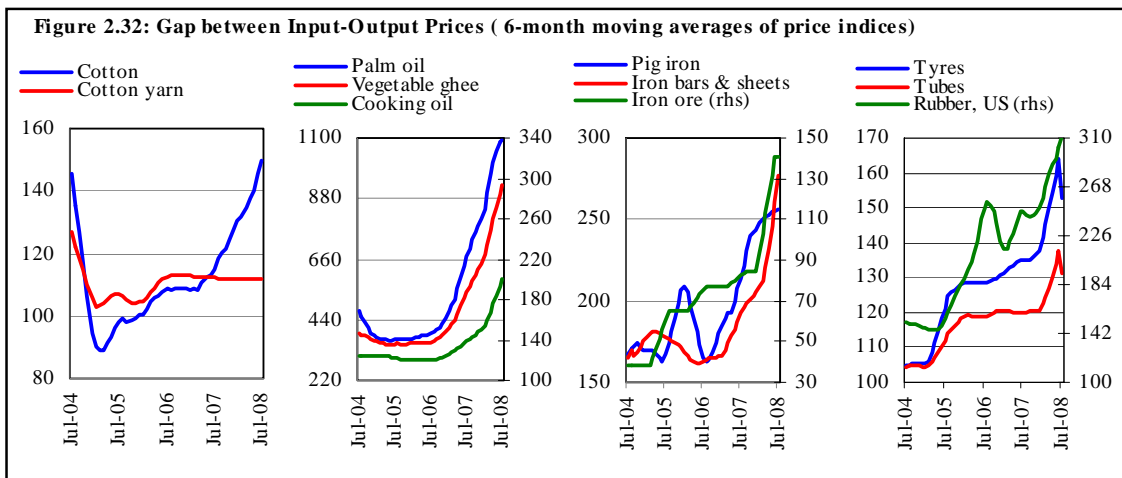
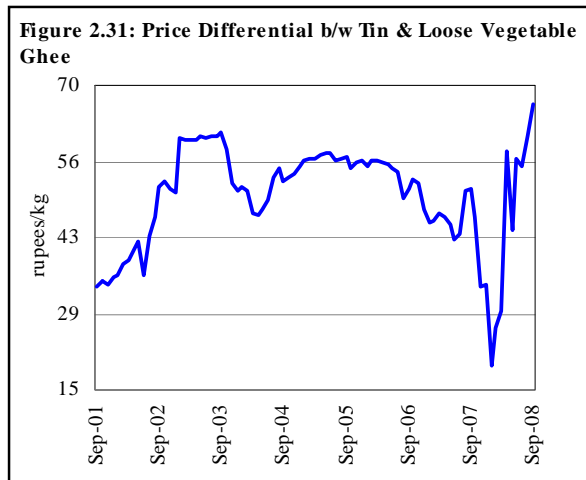
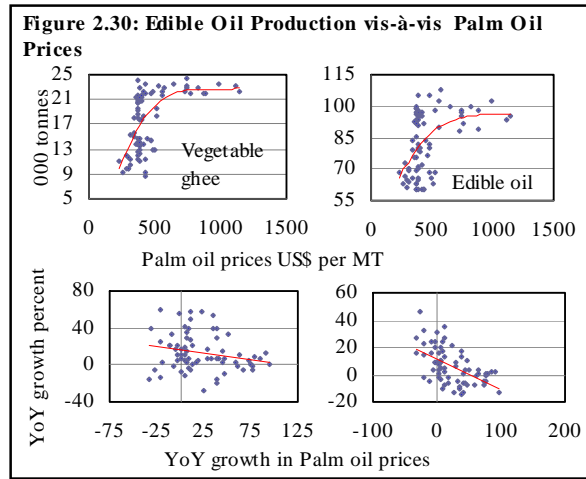
The poor showing of cotton crop for the last three years requires domestic textile manufacturers to focus on (1) increase the production of good quality cotton; and/or (2) using alternatives to cotton.

<sup>10</sup> Bader, Sadia, Determining import intensity of exports for Pakistan, SBP Research Bulletin, Volume 02, Number 02, 2006.

Increasing cotton production is possible if certified cotton seeds and effective application of other agriculture inputs are ensured.

As far as use of cotton alternative is concerned, domestic manufacturers have already increased the focus on using man made fiber as an alternative to cotton. In fact, Pakistan lags behind other textile producing countries in the usage of man made fiber. However, government had already realized this and has reduced duty on PSF import from 20 percent to 6.5 percent. In the Federal Budget 2008-2009, government further reduced this duty to 4.5 percent. In addition, Trade Policy 2008-09 has allowed the import of PET bottles (raw material for PSF production) temporarily under Duty & Tax Remission on Export (DTRE).

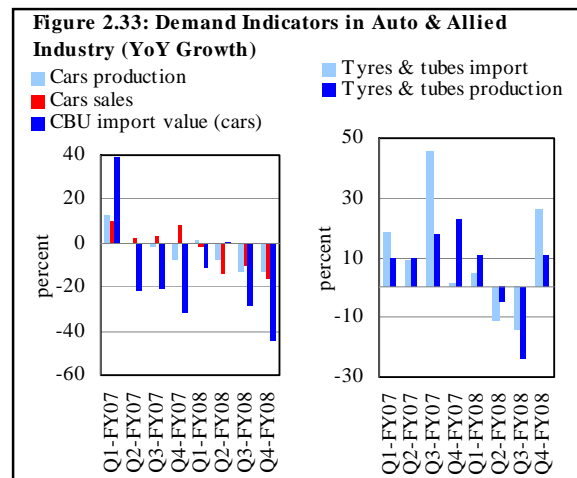
Similar input constraints are seen in edible oil industries where the sky-rocketing prices of palm oil had placed domestic oil/ghee manufacturers at a disadvantageous position (see **Figure 2.30**). Due to stiff competition with informal sector, the ghee manufacturers in the formal sector could not raise the retail prices proportionately. The increase in prices of tinned vegetable ghee was rather slower compared with the loose ghee through most of FY08 to the extent that prices in these markets converged by end Q3-FY08 (see **Figure 2.31**). This provided formal ghee manufacturers room to raise prices further.



## (2) Weakened demand resisting growth in manufactured products

Rising wages and input prices in various industries have caused upward pressures on retail prices of manufactured goods. However, a widening gap in input and output prices during FY08 means that demand is resisting a complete pass through on retail prices (see **Figure 2.32**). A major factor in moderating demand appears to be rising food expenditures on the back of record high food prices. Moreover, political uncertainty through most of the period also led consumers to hold back their demand, especially of durable items.

Among the industries where domestic demand appears moderating was the consumer durables. A number of factors including rising prices, increase in interest rates on consumer loans and banks' reluctance in providing consumer loans caused the drop in demand. *Jeeps and cars* having largest share in consumer durable industry registered a decline in production (see **Figure 2.33**). During FY08, the appreciating Yen and a sharp rise in aluminum and copper prices increased the manufacturing costs of auto assemblers. The resultant increase in car prices, coupled with a slowdown in auto loans dampened the demand for jeeps and cars. Moreover, the slowdown in cars' production during the year also moderated the demand for rubber *tyres and tubes* as evident in declining production as well as quantum of imports. Similarly, the manufacturing of *glass sheets* also slowed down following the lower demand from automobile and construction industries.



Although, international metal prices have started receding Q3-FY08 onwards; the chances of recovery in consumer durable industry appear remote. This is because import duty on CKD of almost all the electronics items has been increased in Federal Budget 2008-09 which will put upward pressures on the prices of these items. Moreover, a few measures are taken to protect local auto industry including increase in import duty on CBUs and decline in duty on CKDs; however, impact of these measures on auto production will be partly offset by increase in car prices following the imposition of sales tax and FED on car sales.<sup>11</sup> More importantly, ease in demand for cars, due to both rises in prices and mark-up on auto financing, will not support recovery in automobile industry at least in the short-run.

## (3) Operational constraints

The entire decline in fertilizers sub-sector was on account of decline in DAP production. The only DAP producing plant in the country had remained closed during Nov-Mar FY08 for BMR. Since this temporary closure was announced much earlier, significant import contracts were made for the period. However, due to a sharp surge in international DAP prices, the demand for DAP also declined substantially. As a result, significant DAP inventory has been built up. The increase in DAP subsidy in Federal Budget 2008-09 coupled with the increase in wheat support price is likely to increase fertilizer production. The only DAP producer in Pakistan has already completed its BMR project and increased the production capacity.

<sup>11</sup> The import duty on CKD has been reduced to 32.5 percent and duty on CBU imports increased by 10 percent in Federal Budget 2008-09. The FED on cars sales increased to 5 percent and sales tax to 16 percent.

### **What conclusions should be drawn for industrial policy?**

The growing inflation and limited fiscal space mean that monetary or fiscal stimulus for industrial sector is remote. Thus the local industry should focus on finding ways as how to achieve and sustain a high growth trajectory. Indeed, effectiveness of government's measures to tackle the ongoing energy crisis remains vital. The sector must focus on removing structural constraints that hinder its path of high growth trajectory in longer term. Indeed, this includes:

#### **(I) Focusing on energy constraints**

A number of industries can focus on achieving self-reliance in energy. For instance, biogas from molasses will help Pakistan reduce its increasing dependence on imported fuel oil. The agreement signed between Faisalabad electric supply company and three sugar mills<sup>12</sup> is a landmark achievement. Such arrangements need to be replicated for the availability of local cheaper fuel to power companies.

The industrial policy should be aiming at increasing the value addition in the industry. This can be done in 3 ways, (a) horizontal expansion whereby country may invest in initiating a number of activities, (b) vertical expansion; this can be done by adding more sub-processes in various industries, and (c) improvement in quality. Horizontal expansion is indeed not feasible given the scarce resources in the country. However, given the fact that world exports in the less sophisticated sectors are growing more slowly than higher value-added goods such as electronics, chemicals and pharmaceuticals; Pakistan must also focus on moving into the production of technology-intensive products. Moreover steps should also be taken to encourage industry for local technology production.<sup>13</sup> Moreover Pakistan may also focus on other export based industries by supportive policies, such as tax holidays, incentives for participation of domestic manufacturers in international exhibitions and also in holding specific fairs for Pakistan.

There is a need to adopt such steps which encourage technology transfer to Pakistan in all sectors of economy. Vertical expansion, or increasing the number of activities in the value chain in certain industries may not only lower the transaction cost of the firms but may also make the country self-sufficient in a number of essential products.<sup>14</sup> Improvement in quality of products is one of the most recommended ideas. This is because, in the presence of a liberal trade regime, the basic problem in the industrial sector is deteriorating competitiveness. And, among other factors, competitiveness of domestic products can be improved through enhancing the quality of products in existing industries. This can be done through focusing on research & development and human resource development.

#### **Box 2.3.1: What does the growth in capital goods industry in Pakistan imply?**

In a developing country like Pakistan, the growth in capital goods industry merits the following:

1. Machinery improves labor productivity and replaces (where possible) subjective human judgments in the production process with more precise and controllable facilities which are improvable as well. "The cementing of a two way link between science and production via the development of machinery created the conditions for infinite possibilities for improvement".
2. There may be more rapid productivity increases and higher growth elasticities in these sectors compared to other sectors in a developing country context.

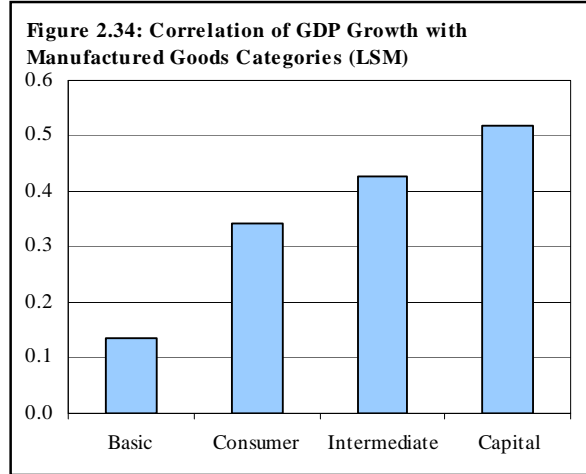
<sup>12</sup> Shakargang, Ramzan and Chistia Sugar Mills.

<sup>13</sup> Some steps which can help achieve these goals are (1) Encouraging projects that result in transfer of technology; (2) A clear policy to promote technology up-gradation; (3) expedite disbursement from the Technology Development Fund; and (4) Facilitate adoption of Engineering Standards by strengthening the role of Pakistan Standard & Quality Control Authority (PSQCA).

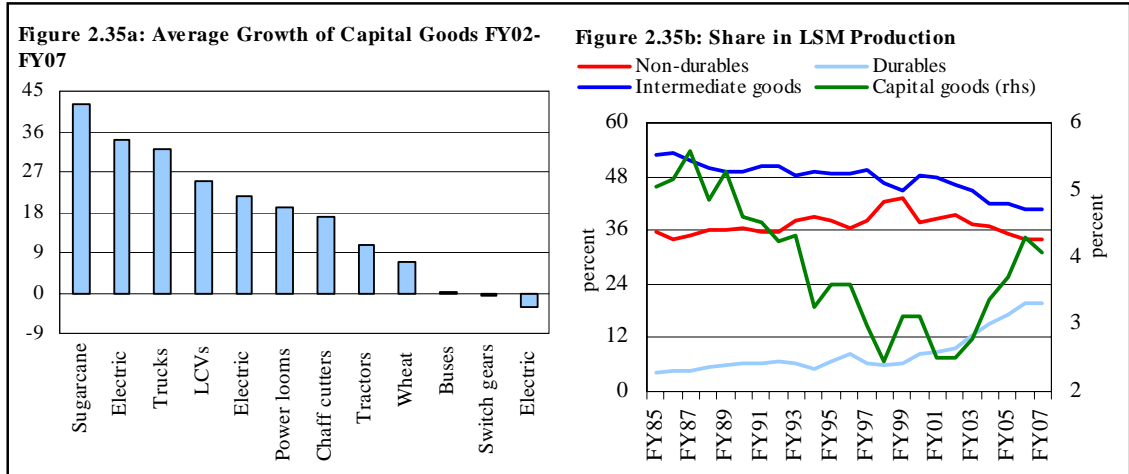
<sup>14</sup> For instance, the development of petro-chemicals industry depends on the availability of naphtha crackers. Indeed, this facility is critically important for the indigenous manufacturing of a large number of essential chemicals and pharmaceuticals. This includes manufacturing of rubber, polymers, synthetic fibers, basic chemicals, pharmaceutical raw material, etc. Thus, government should focus on setting up a fully integrated chemical industry with naphtha cracker with private sector partnership.

3. Capital saving innovations take place in the capital goods industry and contribute significantly to productivity increase within the total economy through their diffusion (see Rosenberg, 1985a).

Despite this however, less attention has been given to this industry. Prior to 1980s, the share of manufacturing of capital goods had less than 6 percent share in overall LSM production (see **Figure 2.34**). For the subsequent decades, the share declined sharply and by end of the 1990s, the contribution of capital goods industry in total LSM reached to a paltry 3 percent. Mainly to the lack of in domestic manufacturers. FY02-FY07 was the only period when, the capital goods industry grew by an average 22.2 percent. Except for buses, switch gears and electric motors, all the capital good items posted a robust average growth during these years. As a result, share of capital goods industry in overall LSM also increased.

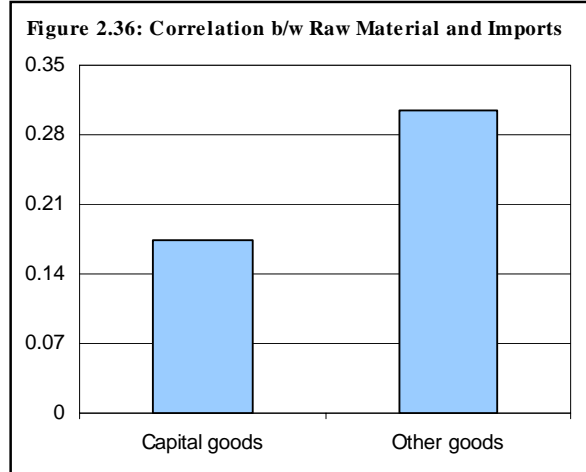


The sharp growth in production of electric transformers and electric meters was due to the increase in electricity distribution activities in the country. In particular, a sharp growth in village electrification has contributed significantly in the growth in production of distribution equipments. Village electrification increased at an average rate of 12.3 percent per annum, over the last four years as against 2.5 percent in the last seven years, prior to 2003-04. Putting this in perspective, it took seven years (1996/97- 2002/03) to provide electricity to 11,680 villages but in just four years (2003/04-2006/07) 39,798 villages have been provided electricity (Economic Survey 2006-07). Similarly, the growth in production of sugarcane machines increased (see **Figure 2.35**).



**Implications**

The growth in capital goods industry is an important indicator of current and future business prospects. On one hand, it is used as a leading macroeconomic indicator; on the other, it is reflective of business confidence on the upbeat economic performance in the future. Compared with the consumer goods (both durable and non-durable) and intermediate goods, growth in capital goods appears to have a pronounced relationship with the economic growth. In Pakistan also, the correlation of GDP growth is highest with capital goods manufacturing compared with the production of intermediate and consumer goods. However, it is found that it is the growth in GDP that shapes the business confidence and thus the investors' decision to manufacture capital goods. Specifically, annual data from 1985 to 2007 suggests



that real GDP growth granger causes the growth in capital goods.

Interestingly in the recent years, the import of both the capital goods as well as raw material for capital goods grew substantially (see **Figure 2.37**). While the imported capital goods were mainly in textile, agriculture and power generating sector; the domestic manufacturing/assembling of capital goods were in sugar, power distribution and transportation sectors.

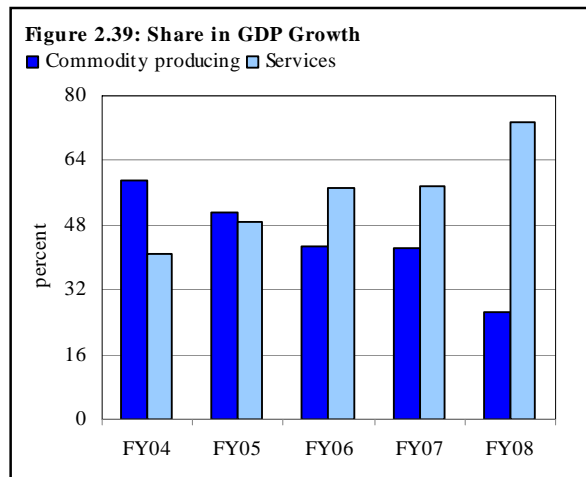
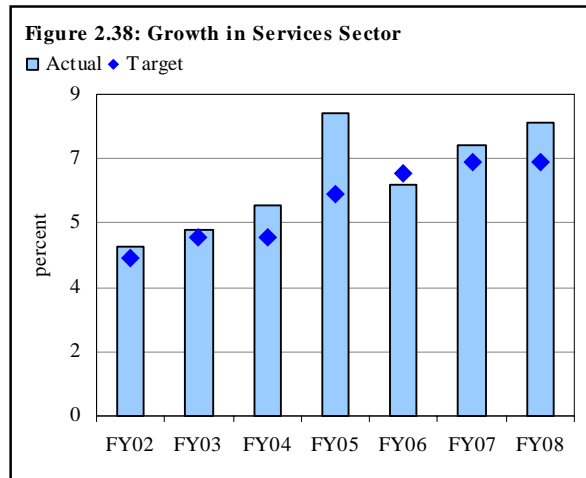
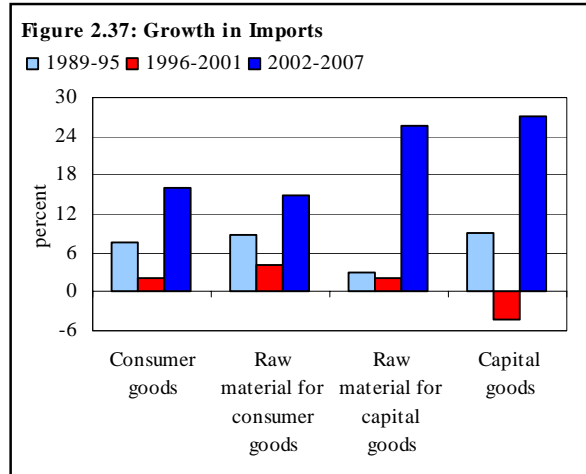
The sharp growth in raw material for capital goods is also reflective of the high dependence of capital goods manufacturing to imported raw material. In specific terms, the correlation between the import of raw materials and production is higher for capital goods industry compared with the consumer goods industry (see **Figure 2.36**). Thus, a high growth in domestic capital goods industry is associated with a high import growth.

**2.4 Services**

In sharp contrast to weak performance by the commodity producing sector, services sector showed an above target growth for the sixth time during the last seven years (see **Figure 2.38**). The sector grew by 8.2 percent in FY08, significantly higher than the 7.2 percent annual target for the year, as well as the 7.6 percent growth seen in FY07. The resilience exhibited by the services sector helped keep GDP growth to a respectable level by contributing about three-fourth of the total value addition during FY08 (see **Figure 2.39**). The major reasons for this robust performance are substantial growth in imports, increasing cost of lending coupled with higher government and private sector credit, extended military operations against insurgencies in different areas and impact of election spending during the year.

Rising oil prices and adverse law and order situation in H1-FY08 took its toll particularly on the transport sub-sector. Nonetheless, continued robust performance of communication sub-sector aided in posting respectable growth in transport & communication sub-sector during FY08 – despite slowdown, the aggregate growth remained higher than the five year average of 4.4 percent. All other sub-sectors of services witnessed acceleration during FY08 (see **Table 2.17**)

Communication sub-sector exhibited 7.8



percent increase in value addition in FY08, owing principally to remarkable growth in mobile telecommunication sector. An important reason of

strong growth in wholesale & retail trade is the increase in imports, growth in domestic and foreign fast food and retail chain stores in recent years. Growth exhibited in *Public administration and defence* is attributable to increased administrative and defence related activities during FY08, particularly elections and anti-terrorist campaign in NWFP and FATA areas. While increase in public and private value addition because of legislative elections in H2-FY08 primarily caused growth in community, social & personal services.

Although services sector performance over the long run depicts above 4 percent annual growth, performance in services has improved since FY00 as a result of reforms of 1990s and continuity in policy of privatization and liberalization in the economy (see **Figure 2.40**). Consequently, *finance & insurance*, telecommunication and *wholesale & retail trade* sub-sectors witnessed impressive recovery and services sector registered the largest upswing. The growth momentum is likely to sustain in FY09.

Transport, storage and communication depict a steady growth trend, averaging close to 5 percent annually. This sector needs attention as it offers great potential for growth. For example removal of prevalent inefficiencies in inter-city and intra-city passenger as well as cargo transportation and possibilities of extension in Railways network could boost value addition by this sub-sector. An efficient transport system is also crucial for an optimum outcome in postal, trade and other services. It may also positively help in assuring better returns to farmers by providing support services, particularly for perishable produce and by reducing wastages. Investment in physical infrastructure as well as in transport on urgent basis is required.

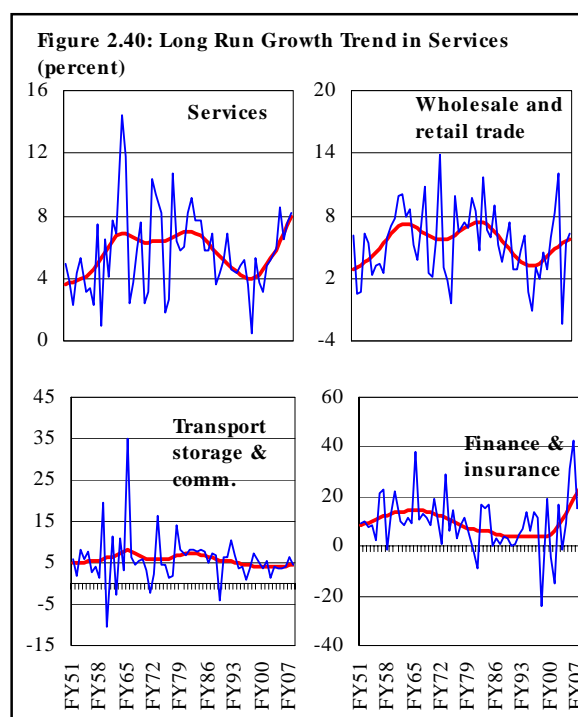
Increased variation in growth in wholesale & retail trade since FY00 is indicative of sustaining growth momentum in this sub-sector as a low variability in this sector is associated with declining trend.

#### **Finance & Insurance**

In contrast to recent years' broad-based growth in finance & insurance sub-sector, FY08 outcome is quite narrow-based. The bulk of growth in this sector is contributed by higher profitability of the central bank (see **Table 2.18**). While a clear deceleration witnessed in the growth contributions by commercial banks and specialized banks,<sup>15</sup> increase in value addition by insurance and pension funds

**Table 2.17: Services Sector Performance**

percent	Annual Growth		Share in Services	
	FY07	FY08	FY07	FY08
W. & retail trade	5.4	6.4	32.7	32.1
Transport storage & comm.	6.5	4.4	19.6	18.9
Finance and insurance	15	17	11.3	12.2
Ownership of dwellings	3.5	3.5	5.2	5
P. admin. & defence	9.1	10.9	11.9	12.2
Com., social & personal services	8.8	9.4	19.3	19.5
<b>Services</b>	<b>7.6</b>	<b>8.2</b>		



<sup>15</sup> Value addition in commercial banks increased by 3.4 percent in FY08, however, decline in value addition of 22.6 percent was exhibited by specialized banks in FY08.

has remained negligible. Profitability of commercial banks in FY08 was significantly impacted by factors including accumulation of non-performing loans, rising inflation, lower appetite for consumer financing due to rising interest rates, etc. Value addition in modarba companies, investment companies and mutual funds increased modestly, while decline in value addition is exhibited by discount & guarantee houses, venture capital companies and housing finance companies. While, profitability of mutual funds and modarba companies has seen significant improvements in H1-FY08, it was adversely hit by poor performance of equity markets owing to adverse political instability and weaknesses in macroeconomic fundamentals.

**Table 2.18: Contribution to Real Value Addition in Finance & Insurance**  
percent

	FY07	FY08
<b>Finance &amp; insurance</b>	<b>15.0</b>	<b>17.0</b>
SBP	7.6	11.2
Other depository agencies	3.7	2.0
Other financial intermediaries	3.1	3.0
Insurance and pension funds	0.7	0.9

Source: Federal Bureau of Statistics

Value addition in public and private insurance sectors increased significantly, while increase in the former was more pronounced, it is worthwhile to note that insurance sector has exhibited resilience from the losses incurred due to deteriorating law and order conditions in H1-FY08, whereby insurance claims increased drastically. This appears to reflect appropriate hedging against risk and reinsurance cover to meet the liabilities. Moreover the 17.8 percent growth in value addition by private investment companies during FY08 appears to be supported by introduction of innovative insurance schemes for new market segments such as small shopkeepers amid healthy competition.

**Table 2.19: Percentage Point Contribution to Real Growth in Wholesale & Retail Trade**  
percent

	FY07	FY08
<b>Wholesale and retail trade</b>	<b>5.4</b>	<b>6.4</b>
Crops	0.2	-0.1
Other agriculture	0.1	0.4
Manufacturing	3.6	2.5
Imports	0.1	2.1
Hotels and restaurants	1.3	1.5

Source: Federal Bureau of Statistics

### **Wholesale & Retail Trade**

Relative ease in consumption, decline in major crops and deceleration in manufacturing growth also clouded growth prospects for wholesale & retail trade during FY08 (see **Table 2.19**). However, surge in imports (rose by 31.2 percent) pushed up growth in wholesale and retail trade during FY08. Trade sector in Pakistan is experiencing a rapid transformation, with the advent of foreign retail, wholesale and fast food chain stores. This has positive impact on absorption of additional labor force in this sector. According to Labor Force Survey 2006-07, share of employment of trade sector has increased by about 1 percent during the last seven years. It is expected that the growth in this sector will remain resilient with further creation of jobs in the economy.

### **Transport Storage & Communication**

Transport storage and communication sector exhibited a narrow growth base. Growth in value addition by this sector was concentrated in communication and road transport, as declines were registered by air transport, water transport, railways, and pipelines sub-sectors, substantial gains in road transport, communication and storage

**Table 2.20: Contribution to Growth in Transport Storage and Communication**  
percent

	FY07	FY08
<b>Transport storage &amp; communication</b>	<b>7.1</b>	<b>4.4</b>
Pakistan Railways	0.5	-0.4
Water transport	0.4	-0.4
Air transport	0.0	-0.5
Pipeline transport	0.1	-0.1
Communication	1.3	1.1
Road transport	4.8	4.5
Storage	0.1	0.2

Source: Federal Bureau of Statistics

sub-sectors helped achieve 4.4 percent growth in transport & communication sector during FY08 (see **Table 2.20**).

While unrest in Balochistan hinders developmental work, sabotage and attacks on installations is mainly resulted in a significant decline of 7.8 percent in value addition by the pipeline sub-sector during FY08.

Furthermore the national flag carrier was barred from undertaking operations in EU over maintenance issues. Due to effective rout rationalization and using efficient fleet to reduce fuel cost, PIA managed to cut down its Aircraft fuel cost by 9.2 percent in CY07 albeit unprecedented increase in fuel prices led to an increase in the accumulated losses in CY07 (see **Table 2.21**).<sup>16</sup>

**Table 2.21: Performance of Pakistan International Airlines**  
percent or mentioned otherwise

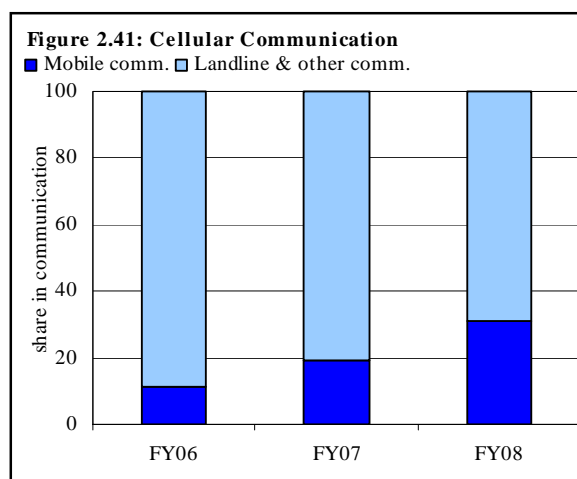
	FY07	FY08
Operating expenses	18.0	-3.5
Revenues Kilometers Flown	7.0	-8.5
Revenue Passengers Carried	4.2	-5.5
Passenger load Factor	68.5	67.4
Profit/(Loss) after tax (billion Rs)	(12,763.4)	(13,398.7)
Net Worth (billion Rs)	(788.0)	(11,903.6)

Source: Annual Report of PIA 2007

Similarly, substantial losses to Pakistan Railways carriages and infrastructure due to law & order situation during H1-FY08 compounded the losses amid rising fuel prices. Thus in addition to increase input costs, Pakistan Railways has in recent years lost its market share to road transport.

Although cargo handling at Karachi port trust and Port Qasim exhibited increase owing to a sharp rise in imports and exports during the year, decline in value addition by both ports<sup>17</sup> is probably attributed to rising operational costs. Similarly, a decline in air transport is a consequence of poor profitability of foreign airlines, travel agents and Civil Aviation Authority as PIA and other domestic airlines posted a positive growth in value addition. The strong growth in value addition by airlines, despite rising fuel prices, is a result of significant increase in air fare and reduction in operating expenses.<sup>18</sup>

The continued remarkable expansion in existing mobile telephone network (see **Figure 2.41**), entry of a big mobile operator coupled with rising value addition by PCOs network helped offset the impact of decline in value addition by PTCL. As a result of increasing outreach of mobile network at affordable prices in a competitive environment, mobile density reached 58.9 percent by end-June 2008 from 44.1 percent a year earlier. Communication sub-sector managed this rapid penetration due to openness and liberalization policy and sector fetched an over US\$ 5 billion of FDI in the last three years, about 38 percent of the total FDI in Pakistan.



## 2.5 Savings

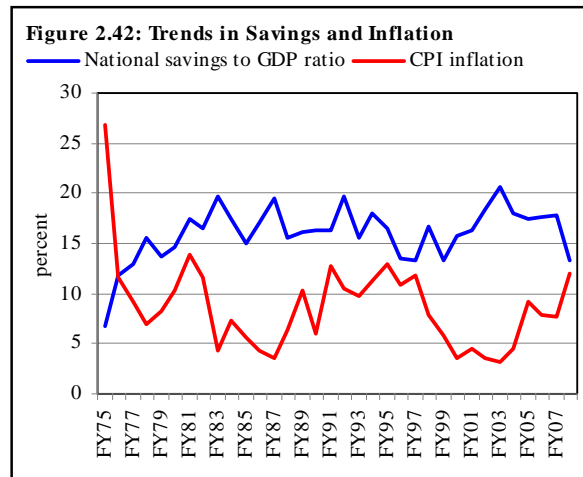
After hovering around 17 percent since FY03, national savings to GDP ratio fell sharply to 13.3 percent in FY08 – the lowest level since FY77.

<sup>16</sup> It may be noted that value addition by PIA increased by 10.3 percent during FY08 as against a decline of 2.7 percent in FY07.

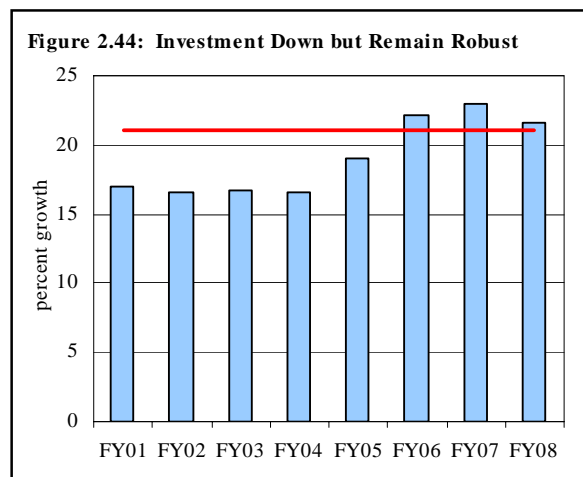
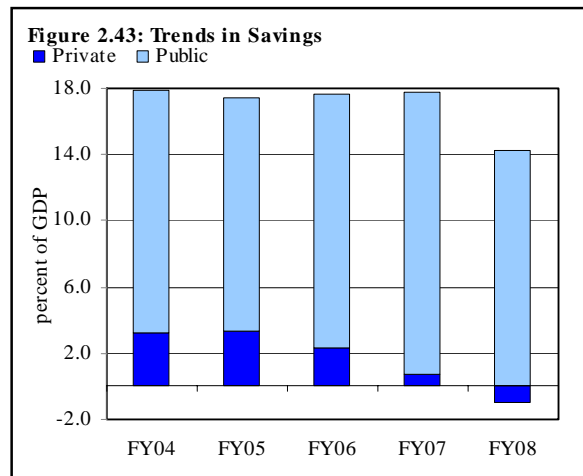
<sup>17</sup> Deceleration of value addition in KPT and PQ of (-)40.6 and (-)16.3 caused sharp deceleration in water transport by (-)11.1 percent in FY08.

<sup>18</sup> For instance, PIA managed to reduce its operating expenses by Rs 2.6 billion in CY07.

The decline in savings is a mirror image of a strong growth of 27.4 percent in nominal consumption during the year, principally due to inflation. It is observed that high inflation has adverse consequences on savings to GDP ratio (see **Figure 2.42**). In addition, continued strength of demand pressures also responsible for a fall in savings as real consumption is also increased by 8.5 percent in FY08. As a result of a higher increase in consumption and a relative slowdown in income (GDP) growth, savings declined. The decline in savings is shared by both public as well as private savings (see **Figure 2.43**). Importantly, dis-saving by the public sector is a reflection of a sharp increase in fiscal deficit during FY08.



A decline in already a low level of savings is mainly attributed to (1) mostly negative real interest rates on savings instruments, (2) consumption oriented society: huge expenses on Eid festivals, marriages, parties etc., and (3) despite SBP efforts towards financial inclusion (provision of financial services for everyone), outreach of financial network is remained limited, thus funds of small savers could not be tapped in the formal sector. In medium to long-term perspective, Pakistan’s growth momentum could not be sustained without improvement in domestic saving rates. Efforts are therefore needed to encourage savings in the economy. Extension in financial services in far flung rural areas to tap savings of small savers with attractive and possibly real positive returns may help boost savings rate. The role of public savings is also important, moderate levels of fiscal deficit would help increase public savings. As a result of low fiscal deficit coupled with vigilant monetary policy will also help keep inflation at low levels, which is crucial to raise private savings. In addition, effective media campaign for moral suasion may also help to bring a cultural change, but it requires symbolic practices from top leadership. A domestic private bank introduced Young Savers Account, which can be opened with Rs 5 only, these types of innovative products could help inculcate saving culture in the economy.

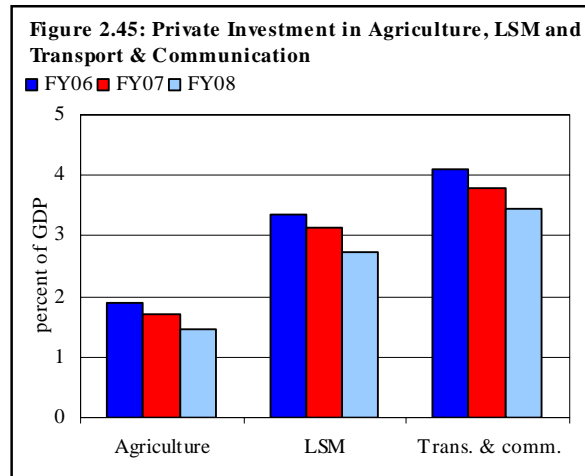


## 2.6 Investment

Total investment to GDP ratio declined to 21.6 percent - for the first time since FY04 - nonetheless it remained strong (see **Figure 2.44**). It is for the first time, investment to GDP ratio sustained above 21 percent for the third consecutive year. Despite a number of adverse developments at domestic and external fronts which deteriorated investor confidence, this performance is remarkable.

Prolonged political instability, stubbornly high inflation, poor law & order situation and negative business sentiments are some domestic factors that were not supportive for investment. Similarly, squeezed international liquidity due to risk averse behavior of investors amid financial market turmoil in US, increased risk perception about Pakistan as evident in rising spread on sovereign bonds and downgrading in credit rating are some external detrimental factors that contained investment growth.

More worrisome is the fact that slowdown in investment is entirely stemmed from decline in private investment to GDP ratio, as public investment to GDP ratio remained unchanged. The slowdown in private investment is more pronounced in LSM, agriculture and transport & communication sub-sectors (see **Figure 2.45**). While public investment is essential to provide infrastructure, it would be difficult to maintain the current high levels of public investment given fiscal constraints.

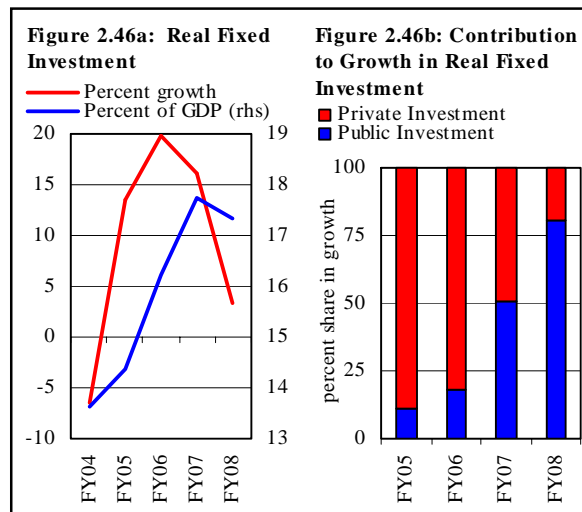


However, there is dire need for increase in public investment in infrastructure development primarily in electricity and gas distribution, construction, transport and human capital. Public investment in these sectors will lead to crowding in private investment as well, improve investor confidence, and provide support for sustainable economic growth.

Pakistan may capitalize on the presence of large market size. Pakistan ranks 29 worldwide for domestic market size.<sup>19</sup> Market size and investment opportunities in energy, manufacturing, construction etc. can be used to lure in foreign and domestic investment. It is also evident in UNCTAD's World Investment Report 2007 which placed Pakistan among those countries who are receiving below potential FDI. In this background, it is important to attract more FDI by structural and legislative improvements. Further, country has to address the issues of labor market rigidities, contract enforcement and governance to reduce cost of doing business.

### 2.6.1 Real Fixed Investment

Unfavorable domestic and external factors impacted real Investment in FY08. Growth in real fixed investment decelerated to 3.4



<sup>19</sup> Global Competitiveness index 2008-09.

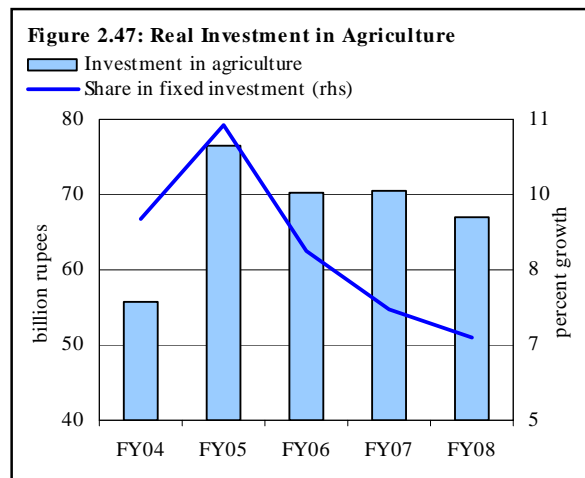
percent in FY08 compared with a robust 16 percent growth in FY07 and three year average growth of 16.5 percent.

Private fixed investment, which provided impetus to growth in investment in recent years, exhibited sluggishness and augmented by a meager 0.9 percent in FY08. Slowdown in real fixed investment is stemmed from deceleration in both public and private investment, however, impact was more pronounced in latter (see **Figure 2.46**). Deceleration in real fixed investment in FY08 is mainly attributable to decline in Private investment in LSM and construction.

### Real Fixed Investment in Agriculture

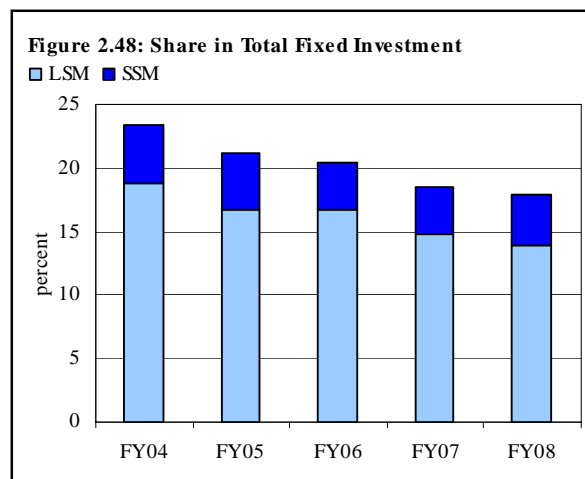
Share of agriculture in fixed investment moderated for the third consecutive year to 6.6 percent in FY08. This moderation was due to decrease in both public and private investment in agriculture (see **Figure 2.47**). Although, farmers availed an above target credit during FY08, it was mainly for production purposes on the back of stubbornly high fertilizer prices.

Given importance and potential to increase the productivity in agriculture sector, there is a need for public and private investment in this sector. Public sector investment in infrastructure and private sector investment in farm mechanization, storage, transportation and value added processing are needed. A rise in agriculture productivity is essential to meet the growing domestic demand, exploit the potential of export, and more importantly reduction in poverty.



### Manufacturing

A significant decline in private fixed investment in LSM overshadowed the rise in investment in small-scale manufacturing SSM and substantial increase in public investment in manufacturing during FY08 (see **Figure 2.48**). Share of investment in manufacturing in total investment gradually declined from 23.3 percent in FY04 to 17.9 percent by FY08. Decline in private investment in LSM is attributable to factors including (1) acute input constraints, primarily that of electricity and gas, which forced temporary closures, (2) stubbornly high inflation, which creates uncertainty and make investment decision difficult, despite low real interest rates, and more importantly, (3) political chaos and poor law & order situation.



### Electricity & Gas Distribution

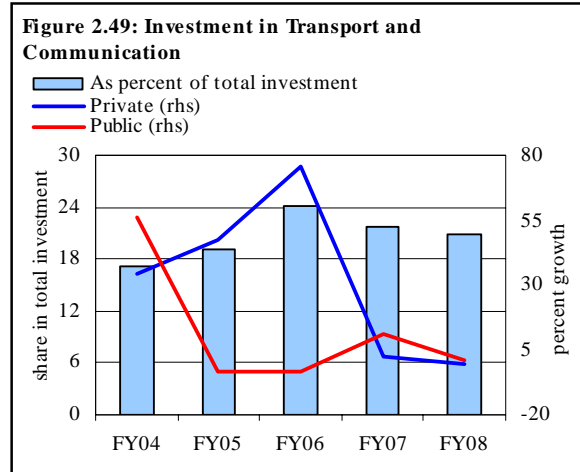
Fixed investment in electricity & gas distribution exhibited strong growth of 12 percent in FY08; almost all of which is attributable to increased public investment in the sector. Importance of this sub-sector as a catalyst of growth in the economy cannot be over emphasized. In this backdrop, fixed investment in this vital sector has averaged merely 3.3 percent of total investment during FY04-FY08. It is important to note that energy shortages held back growth in the economy in general and growth

in LSM and services in particular. A major cause of decrease in fixed investment in this sector is the negligible share of private investment in recent years.

Private sector investment for the last couple of years, for instance, has declined significantly in electricity and gas distribution.<sup>20</sup> There is a need for increased investment spending both from private and public sectors to reign in input constraints stemming from energy shortages.

### Construction

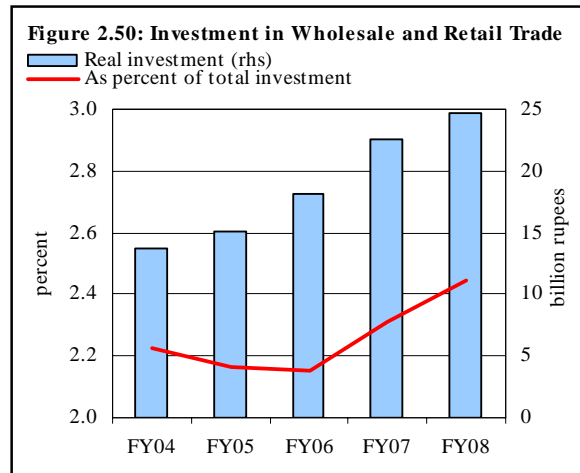
Real investment in construction declined by (-) 10.3 percent in FY08 because of a sharp decrease in private investment in FY08. In particular, FDI, which increased to US\$ 157.1 million in FY07, also decelerated to US\$ 88.1 million in FY08. A substantial rise in the prices of construction material and wages, increased rate of interest on housing finance, as well as lackluster property market held back private fixed investment during FY08 in this sector. It is important to note here that a decline in investment in construction sector may hurt value added growth momentum by this sector in FY09.



### Transport, Storage & Communication

The share of transport storage & communication in total real fixed investment dropped to 20.9 percent during FY08 from a peak of 24.0 percent in FY06. Disaggregation of real fixed investment in this sector reveals that only communication sub-sector contributed towards growth in real investment, which was offset by declines in other sub-sectors (see **Figure 2.49**).

A further expansion in the network of electronic media, mobile phone services, entry of a new mobile phone operator (Zong), resulted in a continued strong growth in investment in communication sub-sector. Similar sustained growth can be achieved in investment in transport sub-sector as well through public-private partnership. Public investment in infrastructure can lure private investment in this sector. Other prospective avenues in which public investment can act as catalyst to increase persistent and sustained private investment are WLL telephony, broadcasting, broad band internet and intercity and intra city transportation.



### Wholesale & Retail Trade

Real investment in wholesale & retail trade<sup>21</sup> exhibited decent growth of 9.3 percent during FY08; growth has, however, moderated in the back drop of 18 percent average growth in real investment

<sup>20</sup> Private investment in electric & gas distribution exhibited decline (-11.5 percent) in FY07 while growth in FY08 is only 1.8 percent.

<sup>21</sup> Wholesale and retail trade contributed 19 percent in value addition in GDP, while its share in real investment is only 2.5 percent in FY08.

witnessed in this sector in the previous five years (see **Figure 2.50**). Trade sector in Pakistan offers lucrative profit margins with a potential for big chain wholesale & retail stores. Similar to other sectors, law & order situation, violence and political uncertainty stalled investment in this sector as well.

### Finance & Insurance

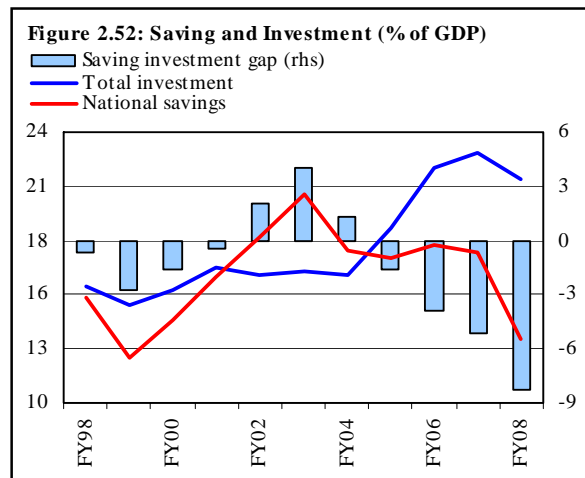
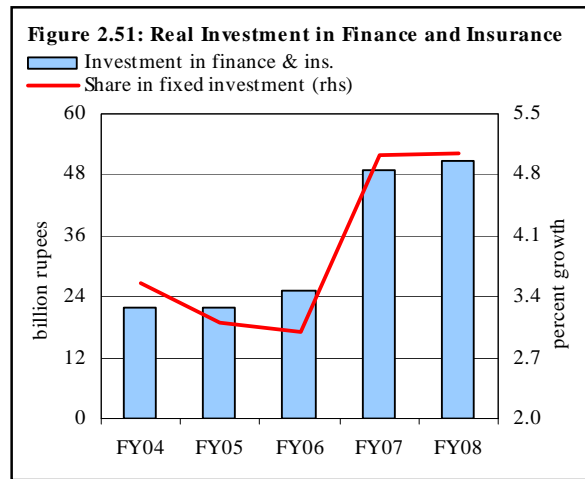
Real investment in finance & insurance during FY08 was driven by both public and private sectors. Unlike FY07 when growth impetus provided solely by private investment, public sector inched up its contribution in investment growth in this sector during FY08. In particular, continued expansion of branches offering conventional as well as Islamic banking services, and entry of Barclays Bank in Pakistan contributed in investment growth in this sector. However, as with construction sector, a sharp deceleration in investment growth (see **Figure 2.51**) will likely to weaken value added growth of this sector in FY09.

### 2.7 Saving-Investment Gap

Resource gap widened by about 4 percentage points in FY08; a slight moderation in investment was more than offset by a substantial decline in savings. Specifically, investment to GDP ratio declined to 21.6 percent in FY08 from 22.9 percent in FY07 and savings to GDP ratio dropped from 17.8 percent in FY07 to 13.6 percent during FY08 (see **Figure 2.52**). Both trends are of concern. On the one hand, a fall in investment spending may lead to a slowdown in economic growth while on the other, a drop in savings may raise increased pressure on the external account to finance the investment needs of the economy. The persistent large saving-investment gaps can substantially increase external debt and the debt service burden, raising risks to macroeconomic stability.

Saving rate in Pakistan is neither in line with domestic resource needs nor is consistent with that of comparable with other countries at the same level of development (**Table 2.22**). Major factors responsible for low savings in Pakistan are:

1. low per capita income.



**Table 2.22: Comparison of Savings and Investment (percent of GDP)**

		1994-2001 Average	2007	2008	2009*
<b>World</b>	Saving	22.1	23.7	23.8	23.8
	Investment	22.4	23.3	23.4	23.5
	Resource Gap	-0.3	0.4	0.4	0.3
<b>Developing economies</b>	Saving	24.1	33	33.5	33.6
	Investment	24.8	28.8	29.3	30.2
	Resource Gap	-0.7	4.2	4.2	3.4
<b>Developing Asia</b>	Saving	32.7	44.7	44.7	45.5
	Investment	32.4	37.9	39.1	39.9
	Resource Gap	0.3	6.8	5.6	5.6
<b>Pakistan</b>	Saving	15.4	17.8	13.3	14.3
	Investment	19.0	22.9	21.6	21.5
	Resource Gap	-3.6	-5.1	-8.3	-7.2

Source: World Economic Outlook, April 2008, \*: estimates  
Annual Plan (various issues), Planning Commission

2. high consumption expenditure on sustenance
3. high consumption on marriages and festivals
4. low financial deepening particularly financial outreach is restricted to urban population and savings of a large segment of rural population are untapped, and
5. lack of awareness for saving in formal financial institutions.