

# 2 Economic Growth, Savings and Investment

## 2.1 Overview

The economy saw a marked improvement during FY03. Prompted by a broad-based recovery in agriculture, strong growth in industry, and a reasonable performance by the services sector, real Gross Domestic Product (GDP) rose by 5.1 percent. This growth was not only stronger than the 3.4 percent recorded during FY02, but was also a little higher than the target for the year (see **Table 2.1**).

The improved performance by agriculture during FY03 hinged primarily on a sharp jump in the productivity of important crops, due to improved water availability and increased use of other agri-inputs. The stronger harvests more than compensated for a relatively subdued performance by the livestock sub-sector, pulling up the overall growth in the agricultural sector.

The agriculture sector performance was complemented by the continued strong growth in industry, which was contributed largely by a spectacular performance of large scale manufacturing (LSM). The latter, in turn, stemmed from a surge in aggregate demand, driven by exceptionally strong exports as well as rising domestic demand. In particular, FY03 saw a phenomenal growth in the production of durables, as well as construction and engineering-related products, which largely benefited from increased availability of cheap consumer finance. Similarly, higher export demand led to higher output in textiles industry. The allied industries such as paper & paperboard, industrial chemicals and tyres & tubes, etc., followed the trends of production in the major industries. The contribution to industry by LSM was supported by strong growth in *mining & quarrying* and *construction*, which offset the negative growth in *electricity & gas distribution*.

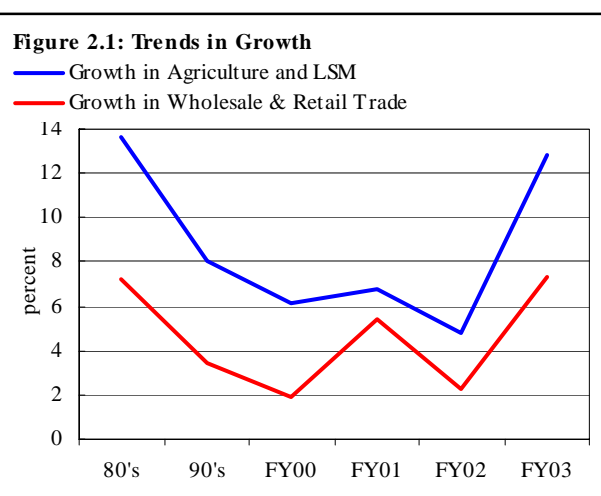
The revival in the commodity-producing sector, with an impressive 4.8 percent growth,

**Table 2.1: Sector-wise Growth Rates and Shares**  
constant factor cost of 1980-81

	Growth rates		Shares	
	FY02 <sup>R</sup>	FY03 <sup>P</sup>	FY02 <sup>R</sup>	FY03 <sup>P</sup>
<b>A) Commodity producing sector</b>	<b>2.7</b>	<b>4.8</b>	<b>49.4</b>	<b>49.3</b>
Agriculture	-0.1	4.1	23.9	23.6
Crops	-1.8	4.2	13.5	13.4
Major crops	-1.8	5.8	9.5	9.6
Minor crops	-1.8	0.4	3.9	3.8
Livestock	3.7	2.9	9.4	9.2
Fishing	-12.0	16.6	0.7	0.8
Forestry	-1.3	8.8	0.3	0.3
Industry	<b>5.4</b>	<b>5.4</b>	<b>25.6</b>	<b>25.6</b>
Manufacturing	5.0	7.7	17.9	18.4
Large-scale	4.9	8.7	12.7	13.1
Small-scale	5.3	5.3	5.3	5.3
Mining & quarrying	3.7	9.5	0.5	0.5
Construction	4.3	3.4	3.4	3.3
Electricity & gas distribution	8.5	-3.9	3.7	3.4
<b>B) Services sector</b>	<b>4.1</b>	<b>5.3</b>	<b>50.6</b>	<b>50.7</b>
Wholesale & retail trade	2.3	7.3	15.2	15.5
Transport, storage & comm.	1.1	3.0	10.0	9.8
Finance & insurance	8.1	-1.4	2.6	2.4
Ownership of dwellings	5.3	5.3	6.2	6.2
Public admin. & defense	6.5	5.2	6.6	6.6
Other services	6.5	6.5	10.0	10.1
<b>Gross domestic product</b>	<b>3.4</b>	<b>5.1</b>	<b>100</b>	<b>100</b>

R: Revised; P: Provisional

Source: Federal Bureau of Statistics



was also reflected in the services sector, and particularly in *wholesale & retail trade* and *transport, storage & communication*. In fact, historically, the performance of *wholesale & retail trade* in particular, has been strongly correlated with that in the commodity producing sectors, and FY03 was no exception (see **Figure 2.1**).

The acceleration recorded in *wholesale & retail trade* and *transport, storage and communication* (which together account for almost 50 percent of the services sector), more than offset a sharp decline recorded in *finance & insurance*, helping record a robust 5.3 percent growth in the overall services sector during FY03.

An overview of the sectoral contribution to the real GDP growth indicates that, despite acceleration in the commodity-producing sector, the role of the services sector remained dominant in FY03, with over half of the growth in GDP during the year coming from this segment of the economy (see **Figure 2.2**).

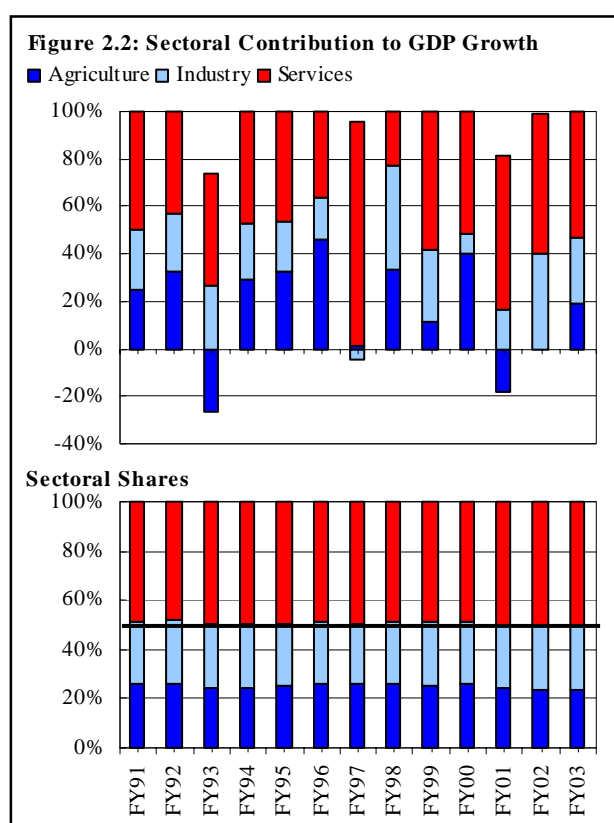
Not surprisingly, therefore, the share of services in overall GDP increased marginally, rising from 50.6 percent of GDP in FY02, to 50.7 percent of GDP in FY03.

The acceleration witnessed by the domestic economy during FY03 was strongly complemented by an accompanying rise in *net factor income from abroad* (for the second successive year) that powered an exceptional 8.4 percent GNP growth that easily outstripped the 5.3 percent GDP growth for the period.

Moreover, a sharp jump in *net factor income from abroad* significantly boosted national savings, which rose to 18.5 percent of GNP in FY03 as compared to 16.8 percent of GNP in FY02. The large rise in GNP also overshadowed the FY03 growth in investment; as a result, despite a 10.5 percent jump in fixed investment, the investment to GNP ratio fell, from 13.0 percent in FY02 to 12.5 percent in FY03.

## 2.2 Agriculture

After two consecutive years of negative growth, the agricultural sector finally posted a strong recovery in FY03, growing by 4.1 percent (see **Table 2.2**). This reversal stems mainly from the resurgence of the major



**Table 2.2: Value Added Growth and Shares**

constant factor cost of 1980-81

Sectors/sub-sectors	Growth rates		Shares in agriculture	
	FY02 <sup>R</sup>	FY03 <sup>P</sup>	FY02 <sup>R</sup>	FY03 <sup>P</sup>
Agriculture	-0.1	4.1	100.0	100.0
Crops	-1.8	4.2	56.5	56.5
Major crops	-1.8	5.8	40.0	40.6
Wheat	-4.6	6.9	11.9	12.2
Cotton	-1.8	-3.6	12.1	11.2
Rice	-7.4	15.3	6.3	7.0
Sugarcane	9.6	8.5	6.1	6.3
Other crops	0.4	12.4	3.7	4.0
Minor crops	-1.8	0.4	16.5	15.9
Livestock	3.7	2.9	39.3	38.8
Fishing	-12.0	16.6	3.1	3.5
Forestry	-1.3	8.8	1.1	1.1

Source: Economic Survey 2002-03

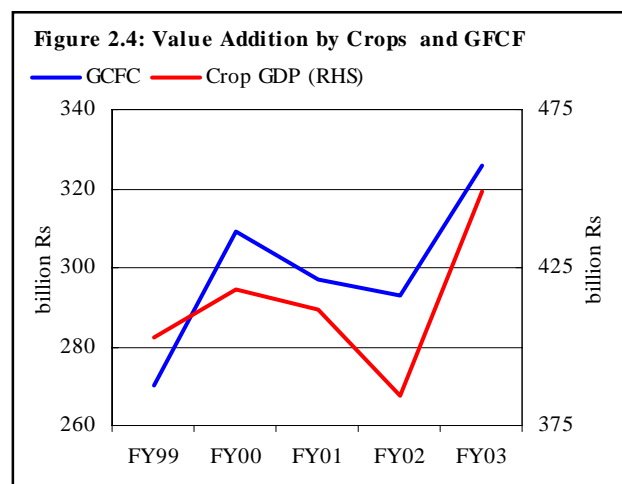
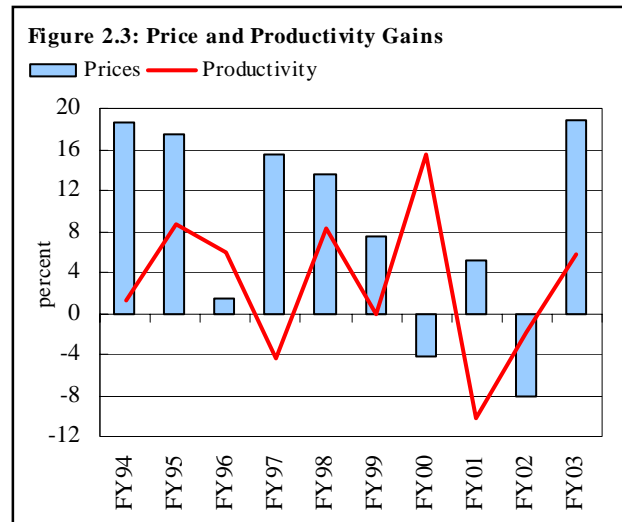
R: Revised; P: Provisional

crops<sup>1</sup>, following the substantial improvement in water availability during the year. Not only did the performance of the major crops compensate for the less impressive recovery in minor crops, but it also offset the relatively subdued performance of the livestock sub-sector.

It is important to note that the area under cultivation did not change significantly during FY03, and it was the higher productivity in most of the important crops that pushed the index of the crops sub-sector up from 172 in FY02 to 180 in FY03. For this, the credit goes to the farmers who put in greater efforts to get the maximum benefit out of the improved availability of water during the growth period of the crops (unable to bring more area under cultivation due to the belated increase in the water supply, farmers instead resorted to higher use of inputs).

At current factor cost (in nominal terms) output rose by 10.3 percent as against the 4.1 percent growth in real terms. This difference clearly suggests that farmers received significant price gains during the year, in addition to the gains from higher productivity. This is in stark contrast to the position in the preceding year, when both the real and nominal growth rates were negative, at 0.1 percent and 2.1 percent respectively. In fact, such a coincidence of price and production gains<sup>2</sup> is uncommon in Pakistan - this was evident only twice during the past ten years and repeated in FY03 (see **Figure 2.3**).

A possible contributing factor to productivity gains during FY03 was a 10.9 percent growth in the private expenditure on fixed capital formation in agriculture sector. It is expected that higher farm incomes this year will enable farmers to enhance their spending on production inputs for the next crops, and invest in farm implements, etc. This is corroborated by the co-movement of gross fixed capital formation (GFCF), with agricultural GDP during the last 5 years, other than in FY01<sup>3</sup> (see **Figure 2.4**). The higher expenditure on agricultural GFCF by the private sector in FY03 complemented an increase in development expenditure by the government through PSDP. During FY03 Rs



<sup>1</sup> Consist of 12 crops including: rice, cotton, wheat sugarcane, maize, gram, barley, jowar (sorghum), bajra (millet), rapeseed & mustard, sesamum and tobacco.

<sup>2</sup> Price gain is obtained by getting the difference between the growth in real value added (at fixed prices) and the nominal value added (at current market prices) during the year while, the production gain is simply the growth in real value addition by major crops.

<sup>3</sup> This may simply because of higher price gains - although the output in agriculture was low, the prices of important major crops were higher during that year, which would have encouraged farmers to increase investment, in hopes of repeating the spectacular FY00 performance.

756 million were spent through PSDP for agriculture related projects compared to Rs 679 million during FY02.

The better harvests during FY03 not only improved the domestic availability of food items, but also the supply of raw material for processing industries, as well as providing larger surpluses for export. As a result, export receipts on account of primary commodities (mostly agriculture-related products) increased by 17.8 percent in FY03 as against a decline of 8.6 percent during FY02. Rice exports in particular increased by 23.9 percent with increases registered both in quantity and unit value (see **Table 2.3**).

**Table 2.3: Export of Primary Agri-Commodities during FY03**

	Percent change over FY02		
	Quantity	Value	Unit value
Rice	8.1	23.9	14.7
Raw cotton	57.6	98.2	25.8
Raw wool	36.5	42.8	4.6
Guar & guar products	8.7	45.2	33.6
Fruits	-9.2	0.1	10.3
Vegetables	23.2	8.5	-12.0
Wheat	76.9	81.6	2.6

Source: Federal Bureau of Statistics

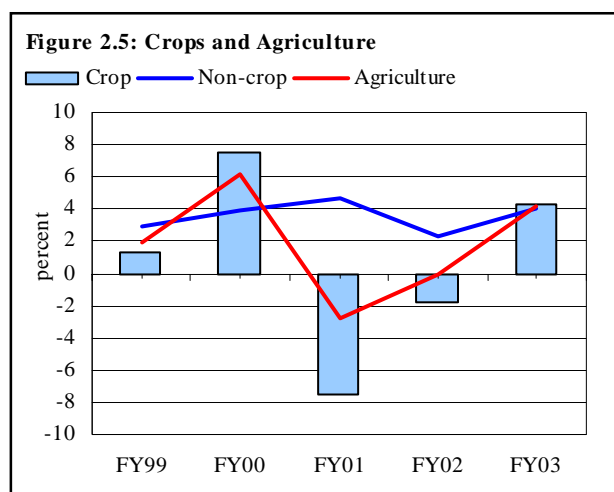
### 2.2.1 Crop Sub-sector

The crop sub-sector, despite its higher vulnerability to water shortages and other natural calamities, continues to dominate the agriculture sector. Although over the past ten years its share in agriculture has gradually declined from 62.7 percent in FY93 to 56.5 percent in FY03, the overall agriculture sector outcome is still largely affected by the relative performance of the crop sub-sector (see **Figure 2.5**).

#### Major Crops

Due to its leading share in agriculture (40.6 percent), the recovery in major crops was the prime contributor to the impressive 4.1 percent growth in agriculture during FY03; the growth in all other sub-sectors of agriculture contributed only 1.0 percent point to the aggregate sectoral growth rate.

Among major crops, rice (with 15.4 percent increase in production and 17.1 percent in value addition) led the recovery, followed by sugarcane, wheat, maize and gram. On the other hand, production of cotton and others (i.e., barley, sorghum and millet) declined by 3.8 percent and 8.9 percent, respectively (see **Table 2.4**). The fall in the output of cotton (with the second highest share in major crops, after wheat), in particular, was a drag on the growth in the crop sub-sector.



**Table 2.4: Share and Growth in Major Crops**

percent	Shares in FY03	Change over FY02	
		Shares	Production
Wheat	30.0	1.1	5.5
Cotton	27.6	-8.9	-3.8
Rice	17.1	9.0	15.4
Sugarcane	15.6	2.6	8.3
Maize	3.5	0.0	5.6
Grams	3.2	54.4	60.8
Others	3.1	-15.1	-8.9

Source: Economic Survey 2002-03

#### Minor Crops

Minor crops<sup>4</sup>, with a 15.9 percent share in agriculture (third highest after major crops and livestock), posted a marginal growth of 0.4 percent during FY03. Although strong growth was observed in crops

<sup>4</sup> Includes fruits, pulses (except gram) vegetable, condiments oilseeds and green fodder.

such as onions, chillies, and some pulses, the poor performance by oilseeds, potatoes, etc., pulled down the sub-sectoral output. During the past ten years, value addition by minor crops has remained lackluster, hovering between Rs 24 billion to Rs 27 billion at constant market prices (except in FY99, when it reached a peak of Rs 30 billion) and FY03 conformed to the same trend (see **Figure 2.6**).

Over the years, farmers have shown no real effort to improve upon the minor crops. A host of factors including uncertainty in market prices, inelastic demand, imperfection of markets and perishability of a majority of the minor crops contributed to this indifferent attitude. Hence an improvement in the network of farm-to-market roads in the remote rural areas and increasing focus on storage and marketing (especially for exports) are essential in expanding the output in minor crops.

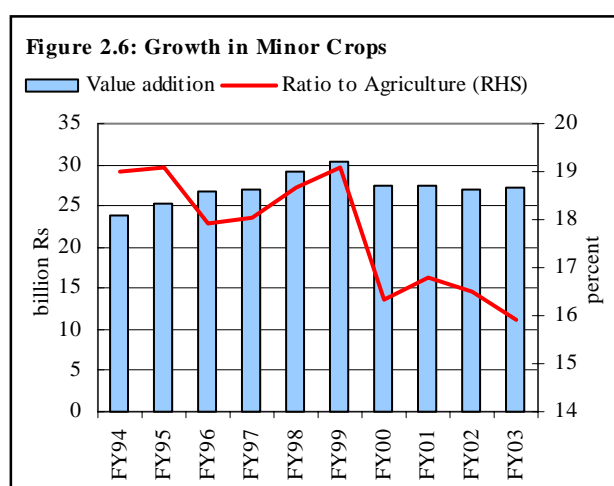
Another important hindrance in the growth of minor crops is the inadequate focus on research & development, and extension services. In absence of new varieties or improved techniques, farmers usually take the decision on area of cultivation and the usage of inputs by following the prices of produce in the preceding seasons. This general practice, at times, proves damaging for growers as supply gluts bring prices down. During FY03, the production of pulses, onion and chillies was higher because of attractive prices in the market during the past two seasons.

### 2.2.2 Yield of Important Crops

Farmers took advantage of the better mid-term availability of water in both *Rabi* and *Kharif* during FY03, by increasing the usage of inputs, to record significant gains in yields of most of the important crops.<sup>5</sup> This phenomenon is evident even in crops that saw the area under cultivation either stagnate or decline (see **Table 2.5**). Gram recorded the biggest improvement in yields followed by rice.

Although a broad-based improvement in yields was evident during FY03, there still remains considerable scope for further gains. When compared with the neighboring and other countries, Pakistan clearly continues to lag in the productivity of a number of important crops.

For example, in terms of the comparative ranking of global yields, Pakistan's best-faring crop is tobacco. But even here, the yield is a full one-third lower than that for the most efficient producer, Japan. The situation is considerably worse for crops such as maize and sugarcane, where the yields are significantly below international averages.



**Table 2.5: Area, Production and Yields**

Important crops	Production FY03	Percent change over FY02		
		Area	Prod.	Yield
<i>Major crops</i>				
Cotton	10.2	-10.3	-3.8	7.4
Sugarcane	52,056	10.0	8.4	-1.5
Rice	4,479	5.3	15.4	14.5
Maize	1,737	-0.6	4.4	5.0
Wheat	19,255	0.4	5.0	5.2
Gram	582	2.7	60.8	56.4
<i>Minor crops</i>				
Mung	138	7.9	20.0	11.4
Lentil	27	-8.2	3.8	2.4
Mash	29	0.0	3.6	4.0
Potato	1,925	-5.2	11.8	17.1
Onion	1,622	2.6	17.1	14.9
Chillies	93	11.0	8.1	3.1

Production: Cotton million bales; other crops 000' tonnes

Sources: i) Ministry of Food, Agriculture and Livestock

ii) Economic Survey 2002-03

<sup>5</sup> Important crops in aggregate covers around 80 percent of the total cropped area.

Compared with the world averages, only in the case of cotton and tobacco, is the per hectare yield in Pakistan higher than the global average (see **Tables 2.6 & 2.7**).

In fact, at present, none of Pakistan's major crops ranks amongst the top three in the world in terms of either area or per hectare yields. An interesting aside is the performance of neighboring countries such as India and China. Both have large areas under cultivation of wheat, rice, sugarcane, cotton and tobacco. However, in terms of yields, only China remains in the front ranks, and that too in only a few crops (with first position in the yield of cotton and third in rice as per the 2002 production statistics).

To put these differences in perspective, Pakistani important crops yields would typically need to at least double in order to reach the levels achieved by the top ranking countries (see **Figure 2.7**).

In Pakistan, the scope of improvement exists at almost all stages starting from pre-sowing to post harvesting including the preparation land to on-farm handling of the produce. The relative low yield of various crops also reflects the gross inefficiency in the use of resources particularly water. If these inefficiencies are not stemmed and productivity increase do not take place the competitiveness of Pakistan's major crops in the global market will be at risk.

### 2.2.3 Prices of Important Crops and their Impact

An unusual phenomenon witnessed during FY03 was that wholesale prices of a *majority* of the important crops (comprising 96.0 percent share of value addition) were higher than in the preceding year (see **Figure 2.8**). More importantly, the relatively higher prices were evident even at harvest time, which generally translates into higher farm gate prices.

Typically, cotton, sugarcane, rice and wheat, determine the average return to the growers. Thus, higher prices of all these commodities during FY03 multiplied by the increases in

**Table 2.6: Pakistan's Rank in the Yields of Important Crops**  
yield (kg per hectare)

	Percent share in		Yield		
	world's total		World's average	Pakistan's	
	Area	Prod.		Actual	Ranking
Wheat	3.8	3.2	2,720	2,262	9th
Rice	1.5	1.1	3,916	2,882	11th
Maize	0.7	0.3	4,343	1,768	16th
Sugarcane	5.1	3.6	65,802	48,056	11th
Tobacco	1.1	1.3	1,589	1,868	6th
Seed cotton	9.4	9.4	1,788	1,867	11th

Source: Agricultural Statistics of Pakistan 2001-2002

**Table 2.7: Lead Countries in Area & Yield**

Area: 000' Hectares, Yield: kg per hectares

	First	Second	Third	Total
	Area			
Wheat	India	China	Russian ed.	World
	25,922	23,500	22,400	210,598
Rice (paddy)	India	China	Bangladesh	World
	40,000	28,177	11,059	147,144
Maize	U.S.A	China	Brazil	World
	28,050	24,528	11,871	138,755
Sugarcane	Brazil	India	China	World
	5,061	4,100	1,240	19,579
Tobacco	China	India	Brazil	World
	1,404	425	334	3,997
Seed cotton	India	U.S.A	China	World
	7,400	5,025	3,170	30,050
Yield				
Wheat	France	Germany	Egypt	World
	7,449	6,906	6,006	2,720
Rice (paddy)	U.S.A	Japan	China	World
	7,370	6,582	6,266	3,916
Maize	France	Italy	U.S.A	World
	9,914	9,560	8,157	4,343
Sugarcane	Egypt	U.S.A	Mexico	World
	119,838	78,500	74,746	65,802
Tobacco	Japan	U.S.A	Greece	World
	2,530	2,317	2,078	1,589
Seed cotton	China	Turkey	Brazil	World
	3,978	3,428	2,843	1,788

Source: Agricultural Statistics of Pakistan 2001-2002



production<sup>6</sup> brought substantial gains to growers, on average, in sharp contrast to the net losses incurred in FY01 and FY02.

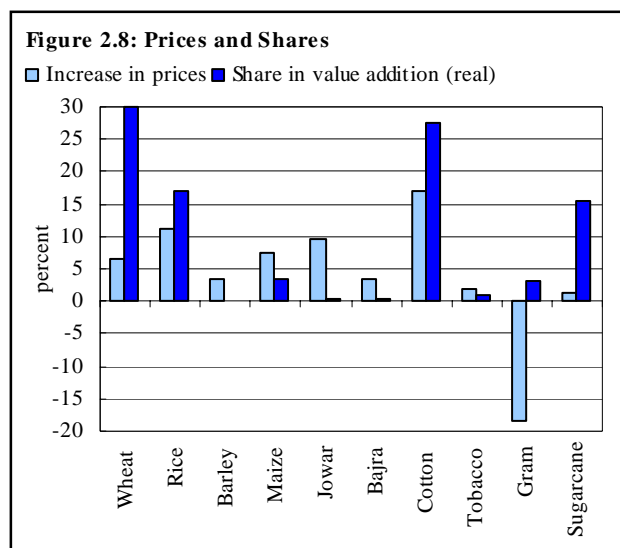
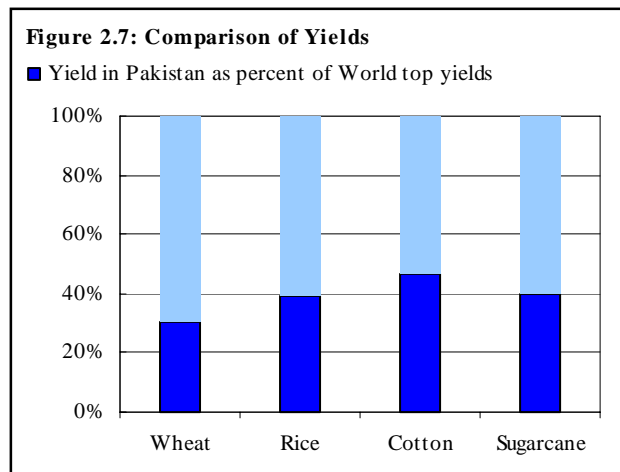
Amongst the major crops, only the price of grams witnessed a YoY decline in FY03, which was mainly on account of higher domestic production and lower international prices during FY03. However, even for this crop, the net impact on the farmers' income would have been positive, because the yield of gram rose a startling 56.4 percent offsetting the 28.5 percent harvest-period decline in the price (see **Figure 2.8**).

Since the major crops are grown in all provinces, the benefits of the rise in prices were widely distributed in the various regions of the country according to their respective shares in the crops. With higher weight of area under crops, rural incomes in the Punjab, Sindh and NWFP are more sensitive to the changes in prices and productivity of the crops, while, in Balochistan (due to relatively bigger area under orchards than in other provinces) farm incomes are more diversified (see **Table 2.8**).

With a negligible share of NWFP in the production of cotton, the farmers there could not get the benefit of higher prices of cotton. However, farmers in NWFP with higher share in production benefited more from the rise in the price of maize during FY03.

The prices of crops, in addition to determining the financial strength of the farmers, also have a strong bearing on production decisions (i.e., matters related to area under the crops and the use of inputs, etc.) for the next season. The higher price of the crops during FY03 thus provides incentive to the farmers to invest greater effort and money to improve FY04 production and increase the area under major crops.

In contrast to the gains on account of major crops, the growers of minor crops could not get matching benefits as the prices of most of these crops registered declines during FY03 (see **Figure 2.9**). The intensity of the fall in prices was so steep that it could not be offset even with the increases in the



**Table 2.8: Provincial Shares in Crop Sub-sector**  
percent

	Punjab	Sindh	NWFP	Balochistan
<b>Shares in total production</b>				
Cotton	77.4	22.3	0.0	0.3
Sugarcane	59.3	30.7	9.9	0.1
Rice	58.4	29.9	3.1	8.6
Wheat	74.9	14.4	6.5	4.2
Maize	47.2	0.3	52.3	0.2
Tobacco	24.2	0.2	74.0	1.6
<b>Area as ratio of total cultivable land</b>				
Fruits	2.2	3.7	2.0	17.5

Source: Agricultural Statistics of Pakistan 2001-02

<sup>6</sup> Although the production of cotton during FY03 declined by 3.8 percent, the increase in the yield by 7.4 percent had more than offset the losses to the farmers on account of lower production.

production. The value addition (at current factor cost) by minor crops therefore fell by 2.3 percent during FY03 compared to that in FY02.

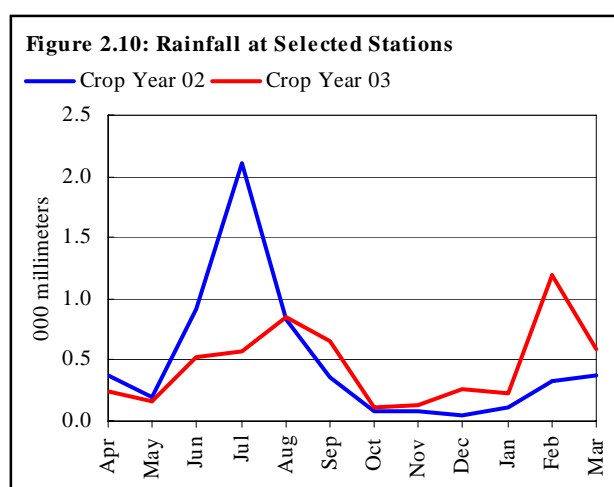
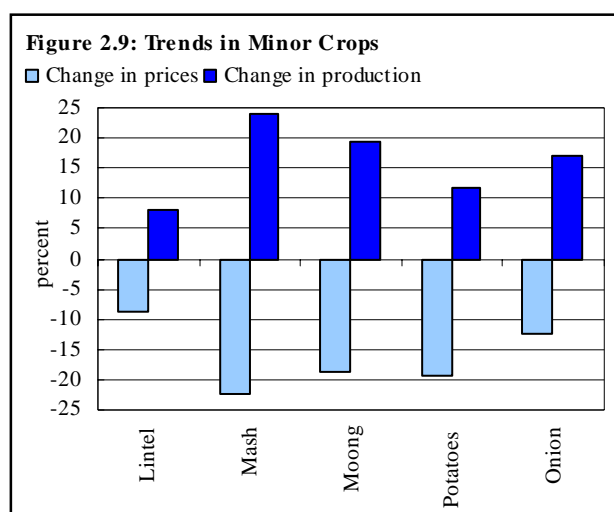
The improved relative returns in major crops having improved in FY03 and the adverse movement in prices of minor crops may result in crop substitution possibilities where ecological and other conditions permit, but this is likely to remain limited. The long-term outlook of minor crops in Pakistan, however, does not look very promising on the basis of last ten-year record.

### 2.2.4 Use of Inputs

As mentioned earlier, the usage of inputs, such as improved seeds and fertilizers, rose significantly in FY03, due to the improved water availability for irrigation, favourable weather conditions, lower incidence of pest attack and the expectations of higher prices of cotton, rice and many other crops. The higher use of inputs is most clearly evident in the increased share of production loans in agri-credit.

### Water availability

Fortunately, a larger part of the CY03 (Crop Year 2003 i.e., April 2002 to March 2003) was characterized by higher availability of irrigation water through canals and rains. Witnessing increases both in *kharif*<sup>7</sup> and *rabi*<sup>8</sup> by 14.9 and 35.7 respectively, the total supply of canal water during the year remained 20.2 percent higher than in CY02. Although, the increased availability of canal water still lagged behind the supply of normal years,<sup>9</sup> the timely rainfall had a pronounced impact. In fact, higher rains in crop-growing period during *kharif* and *rabi* proved beneficial in increasing the yields of most of the important crops including cotton, rice wheat and gram (see **Figure 2.10**). In CY02, extraordinary rainfall was also observed in July 2002, mainly in the Rawalpindi region, but this could not bring any significant improvement for agriculture.



The decline in canal water supply, which started in *rabi* FY00 continued till *rabi* FY02. This drought-like situation that persisted for more than two years (three *rabi* and two *kharif* seasons), adversely affected the output of most of the important crops thus causing losses to the growers of these crops. The value addition through crops during FY01 and FY02, could not even match the value posted in FY00. In rupee term, these losses (measured at current factor cost) accumulated to Rs 63.6 billion to

<sup>7</sup> Kharif season (April - September): the important crops of the season are; sugarcane, cotton, rice, maize, bajra and jowar.

<sup>8</sup> Rabi season (October - March): the important crops of the season are; wheat, gram, barley, rapeseed & mustard and tobacco.

<sup>9</sup> During CY03, total canal-head water availability was recorded at 87.8 million acre feet (MAF) compared to the past five years' average (1996-2000) of 103.5 MAF or the agreed availability mentioned in 1991 Water Accord at 103.6 MAF.



the economy. To put this in perspective, these losses are sufficient to cover the cost of a small dam with a capacity of 1.2 million acre feet of water and electric generation capacity of 720 MW.<sup>10</sup> The loss also equals to 57.9 percent of the total outstanding loan to the agriculture sector as on June 30, 2003.

### Use of fertilizers

During CY03, the use of both urea and DAP fertilizers increased by 5.9 percent over CY02. With no significant change in *kharif* season, entire increase in use of fertilizers was witnessed in *rabi*; the season for two important crops i.e., wheat and gram (that, together, have a 33.2 percent share in major crops) which are jointly cultivated on an area higher than the cumulative area sown for all other major crops (see **Table 2.9**).

**Table 2.9: Use of Fertilizers**

thousands tones

	CY02			CY03			Percent change over FY02		
	Kharif	Rabi	Total	Kharif	Rabi	Total	Kharif	Rabi	Total
Urea	1,851	2,064	3,916	2,036	2,142	4,178	10.0	3.8	6.7
DAP	613	528	1,141	406	772	1,178	-33.8	46.3	3.2
Total	2,465	2,592	5,057	2,442	2,914	5,357	-0.9	12.4	5.9

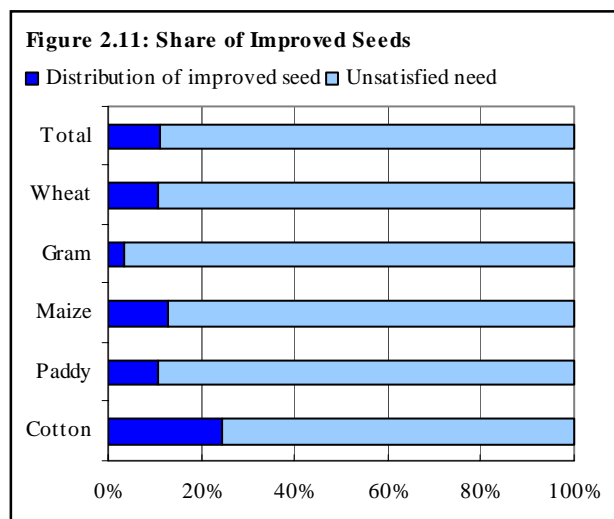
Source: National Fertilizer Development Center.

The increase in the consumption of fertilizers despite the price increases of 4.6 percent and 5.4 percent for urea and DAP respectively during FY03, is explained by farmers' expectations of receiving higher prices of their produce.

### Use of Certified Seeds

The distribution of certified seeds saw an increase of 11.9 percent during FY03 compared to FY02. The certified seeds of wheat, paddy, maize, cotton, gram and oilseeds are generally available and distributed by the network in public and private sector. In the public sector, the respective provincial seed corporations carry out the distribution in the Punjab and Sindh, while Provincial Departments of Agriculture undertake this task in Balochistan and NWFP. In addition, 394 private sector seed companies, including 5 multinationals, provide certified seeds.

The advent of private sector seed companies (with their aggressive marketing campaigns), and the resulting increased availability of improved seed is expected to bring significant growth in the consumption of improved seed, from the present, very low, levels (see **Figure 2.11**). During FY03, distribution of improved seeds stood at only 12.7 percent of the total estimated seed requirements.



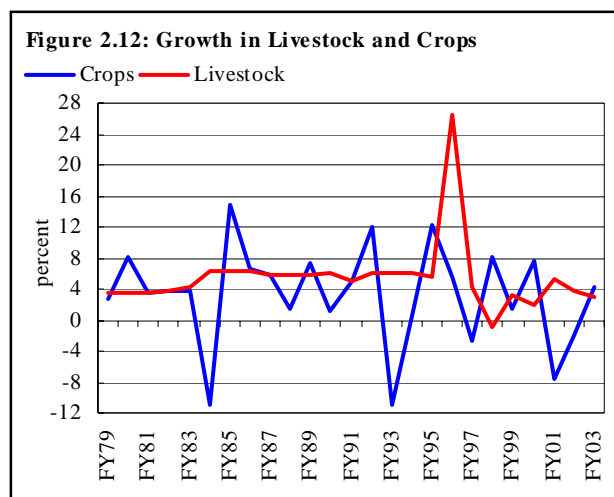
## 2.2.5 Livestock and Poultry

The livestock sub-sector (including poultry) with its 38.8 percent share in agriculture and 9.2 percent in GDP, contributed almost 28 percent to the growth in agriculture during FY03. The sub-sector grew

<sup>10</sup> As per the feasibility report of Kalabagh Dam, its total cost is at Rs 285 billion and the water storage and electricity generation capacity is projected at 6.1 MAF and 3,600 MW respectively.

by 2.9 percent during FY03 compared to 3.7 percent in FY02. With its steady growth over the years, the share of livestock in agriculture has increased from around 29.0 percent in FY78 to almost 39.0 percent by FY03. As a more reliable source of farm income, the rising share of livestock provided comfort to farmers particularly during years witnessing crop failures.

Its lower vulnerability to bad weather and other crop related adversities meant that the livestock sub-sector has rarely depicted negative growth over the past twenty-five years (see **Figure 2.12**). However, the exceptional growth of 26.4 percent during FY96 and 6.3 percent in FY86 soon after the census on livestock was conducted, suggests that the annual growth rate of livestock during the inter-censal period is underestimated and the base is corrected every ten years. Thus the annual growth rates may not be truly representative of the actual underlying trends.



During FY03, across the board increases were registered in the population of all the heads of livestock with corresponding increases in livestock products. With the production of milk which has the heaviest weight in the livestock product, increased by 2.9 percent during FY03, thereby bringing a significant improvement in the per capita availability of milk during the year. Similar trends were seen in other livestock products (see **Table 2.10**).

**Table 2.10: Livestock Population and Products**

Selected species	Million numbers		Percent change	Products	Thousand tonnes		Percent change
	FY02	FY03			FY02	FY03	
Cattle	22.8	23.3	2.2	Milk	27.0	27.8	2.9
Buffalo	24.0	24.8	3.3	Beef	1034	1060	2.5
Sheep	24.4	24.6	0.8	Mutton	683	702	2.8
Goat	50.9	52.8	3.7	Poultry meat	355	370	4.2
Poultry <sup>1</sup>	330.0	296.0	-10.3	Eggs <sup>2</sup>	7679	7860	2.4

<sup>1</sup> Includes layers, broilers, rural poultry and breeding stock, <sup>2</sup> Million numbers

Source: Ministry of Food, Agriculture and Livestock

In poultry, the positive growth was witnessed in all products except broiler chicken, which declined significantly by 14.1 percent. Higher mortality in the growth period of chicks is the apparent reason for decline in the production, given the significant increase of 4.9 percent recorded in the production of day-old chicks.

Since livestock and poultry contain a variety of species, compatible with different landscapes and weather conditions, these can better be adopted as a commercially viable business throughout Pakistan (even at the places where cropping is not deemed profitable). For instance, a larger population of sheep (more suitably kept in deserts and hilly areas) is in Balochistan, while, buffaloes, which are kept in canal side areas, are rare in that province (see **Table 2.11**).

**Table 2.11: Selected Livestock Population**

	thousand numbers			
	Punjab	Sindh	NWFP	Balochistan
Cattle	9,382	5,464	4,237	1,341
Buffaloes	13,101	5,615	1,395	161
Sheep	6,142	3,710	2,821	10,841
Goats	15,301	9,734	6,746	9,369
Poultry	24,511	11,549	22,501	4,637

Source: Livestock Census 1995

### **2.2.6 Fishing**

The sector showed an impressive recovery, with double-digit growth of 16.6 percent in FY03 as against the 12.0 percent decline in FY02. This was because the contribution to growth from higher marine catches was augmented by the concurrent rise in inland fishing (enabled by the rising waters in rivers and lakes during FY03)<sup>11</sup>.

Holding a tiny share of 3.4 percent in agriculture and 0.8 percent in GDP, this growth presently has little impact on the aggregate growth in agriculture and, in turn, GDP. However, it is an important source of foreign exchange earnings and employment. During FY03 export receipts from fish and fish preparations at US\$ 134.5 million contributed 10.6 percent to the exports of primary commodities and 1.2 percent to the total export receipts and were 7.1 percent higher than FY02.

Despite its small share in fish production, a disproportionately higher number of people (with a share of 62.2 percent of the total employment of around 365 thousand people in fishing sector) are engaged in inland fishing. This disparity owes to the facts that marine fishing is large-scale capital intensive activity conducted in sea and oceans by employing heavy trawlers. On the other hand, inland fishing is done on smaller scale at rivers, lakes and ponds, and is much more labour intensive (particularly in the case of fish farming).

As a supplementary source of income, fish farming is gradually attaining popularity amongst farmers. Over past 15 years, the share of inland fishing in total fishing has increased from 21.5 percent in FY88 to 27.9 percent in FY03. Its future prospects for further expansion are quite bright because it is one of the activities, which can viably be adopted for corporate farming. Moreover, as the fish farming can suitably be undertaken in areas with brackish underground water, it has a great potential to be promoted in a large area of Sindh that is not suitable for crops.

### **2.2.7 Forestry**

With its minuscule share of 1.1 percent in agriculture and 0.3 percent in GDP, value addition by forestry sector registered an 8.8 percent growth during FY03. Looking at the past ten years, the growth in the sector remained very erratic, i.e., registering a growth as high as 113.0 percent once in FY00 and the negative growth of 24.9 percent and 23.2 percent during FY96 and FY98 respectively. While this lack of consistency in growth shows the vulnerability of the sector, it also reflects the absence of any designated targets for the improvement of the existing situation.

Pakistan is one of the forest deficit countries with only 4.8 percent of land covered by forests, far below the benchmark of 26 percent recommended for the developing countries. This situation is worsening on account of deforestation. During FY03, 298.8 thousand cubic meters of timber and 495.5 thousand cubic meters of firewood were obtained from the forests compared to 274.5 thousand cubic meters of timber and 451.0 thousand cubic meters of firewood last year. Since the value addition in forestry comes from the sale of timber, its sustainable future growth can only be ensured through forest regeneration and afforestation.

### **2.2.8 Financial Support to Agriculture Sector**

In addition to providing working capital and fixed investment loans to farmers for the crop and the non-crop sectors, the banks are also providing loans to the buyers of agriculture produce. These loans strengthen the market for produce by increasing competition. Moreover, arrangements have also been made to provide micro-finance to the rural poor in the form of opening special windows in some of the existing banks and by instituting new specialized banks specifically for this purpose.

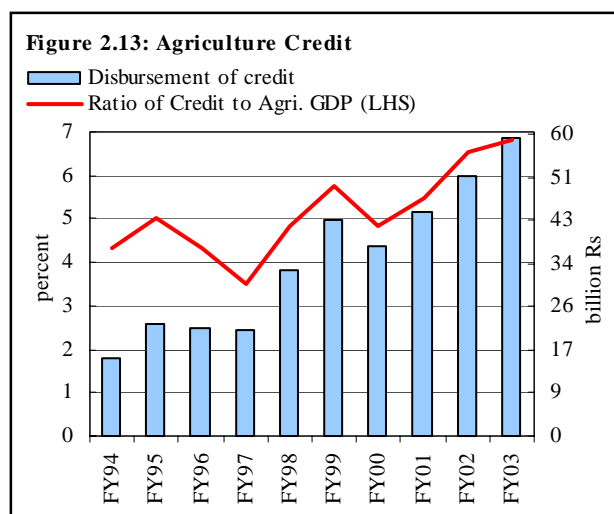
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<sup>11</sup> Share of marine fisheries during FY03 stood at 72.1 percent with the remaining 27.9 percent coming from inland sources like river, lakes and ponds etc.

### Agricultural Credit

Following the continued efforts to enhance the coverage of institutional finance, an improvement in credit delivery has been visible both in absolute and relative terms. Over the past ten years, credit disbursement registered a 28.2 percent average annual growth and consequently, the ratio of credit to agricultural GDP (at 1980-81 factor cost) has improved from 4.3 percent in FY94 to 6.8 percent in FY03 (see **Figure 2.13**). The recent upward trend since FY00 from 4.8 percent to 6.8 percent is more spectacular.

This consistent rise in disbursement for the past three years was possible solely on account of the salutary performance of commercial banks in the field of agricultural credit. A host of factors<sup>12</sup> including the commercial banks' own efforts in redesigning the agriculture credit scheme contributed towards this improvement.



This mainstreaming of agriculture credit by the commercial banks is a healthy development because these banks possess the financial strength, widely dispersed network and outreach. The expected penetration of agriculture credit is likely to be more rapid in future when these banks are expected to become the main source of financing for the sector.

### Disbursement

The disbursement of loan during FY03 rose by 12.2 percent compared to the preceding year although the annual target was not met (see **Table 2.12**).

The institutional breakup of disbursements reveals that commercial banks<sup>13</sup> exceeded their targets while the shortfall was due to ZTBL. Commercial banks are fast approaching the higher share enjoyed by the traditional market leader, ZTBL. Starting with the low share in total disbursement in FY99, the commercial banks have, within a span of four years, more than doubled their share to 38.6 percent by the close of FY03 (see **Figure 2.14**).

**Table 2.12: Agriculture Credit - Target/Disbursement**  
billion Rupees

	FY02	FY03	% change
Annual target	60.0	62.7	4.5
Disbursements	52.5	58.9	12.2
Percentage share of target	87.5	93.9	7.4

Source: Agricultural Credit Department, SBP

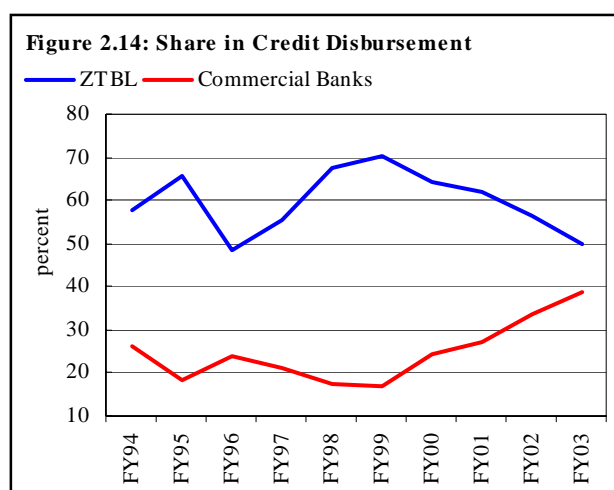
During FY03, commercial banks jointly disbursed Rs 22.7 billion compared to Rs 17.5 billion last year. The salient features of this growth are that; 1) the 30.0 percent increase in disbursement over FY02, has been shared by all the participating commercial banks; and 2) each of the commercial banks exceeded their individual targets.

<sup>12</sup> This has already been discussed in detail in SBP Annual Report for 2000-2001 (page-24) and in the other subsequent reports including the SBP Third Quarterly report for FY03 (page-22).

<sup>13</sup> Include: i) Allied Bank of Pakistan Ltd., ii) Habib Bank Ltd., iii) Muslim Commercial Bank Ltd., iv) National Bank of Pakistan, v) United Bank Ltd.

This suggests a healthy competition among the commercial banks for the agri-credit market. Habib Bank Ltd. is very close to the National Bank of Pakistan who had always a lead share among the commercial banks. Similarly, Allied Bank of Pakistan Ltd. and the United Bank Ltd. who were laggards in agricultural lending have now come closer to the average performance.

The emergence of smaller domestic private banks<sup>14</sup> in the field of agricultural lending over the past two years is another sign of the increasing competition for agri-lending. Although their share in total lending is at very low (2.4 percent), they had shown an increasing interest with a phenomenal 139.9 percent growth in their agri-credit portfolio during FY03 compared to the preceding year.



Zarai Taraqati Bank Limited (ZTBL) which had witnessed in disbursement lag almost 4.0 percent YoY by the end of Q3-FY03,<sup>15</sup> made good progress in the fourth quarter, witnessing a 10.9 percent growth over Q4-FY02, possibly as a result of a 3.0 percent rebate offered to borrowers in April 2003. Consequently, by the end of FY03, the ZTBL's total disbursement during the year rose by a marginal 0.6 percent.

Among the provincial cooperative banks, only the Punjab Provincial Cooperative Bank (PPCB) is working successfully (with all other provincial banks either closed or under liquidation) and disbursed Rs 5.5 billion among the cooperative societies during FY03 compared to Rs 5.3 billion in FY02 (see **Table 2.13**).

**Table 2.13: Credit to Agriculture Sector**

billion Rupees

	Disbursement			Recovery			Net Credit <sup>1</sup>		Outstanding <sup>2</sup>	
	FY02	FY03	Change	FY02	FY03	Change	FY02	FY03	FY02	FY03
Z.T.B.L	29.1	29.3	0.5	33.4	34.3	2.7	-4.3	-5.0	83.7	87.7
Commercial banks <sup>3</sup>	17.5	22.7	30.0	14.8	19.5	32.0	2.7	3.3	13.3	16.6
New private CBs <sup>4</sup>	0.6	1.4	140.7	0.5	0.6	12.2	0.1	0.9	0.7	1.6
PPCB	5.3	5.5	4.2	4.6	5.1	10.8	0.7	0.4	3.6	4.0
Total	52.5	58.9	12.3	53.3	59.4	11.6	-0.8	-0.5	101.4	109.8

<sup>1</sup> Net credit = Disbursement minus recovery; <sup>2</sup> End June; <sup>3</sup> Includes NBP, HBL, MCB, UBL, and ABL; <sup>4</sup> New private commercial banks started lending in FY02

Source: Agricultural Credit Department, SBP

The end-use classification of credit reflects that during FY03, around 81.8 percent of credit was disbursed for production purposes while 18.2 percent was for development purposes compared to 82.5 percent and 17.5 percent respectively during FY02. The increased share of development credit in FY03 (even as total credit rose) appears to reflect the rise in farm incomes during the year, as well as farmers' confidence in the prospects for agriculture in light of increased water availability and attractive prices for produce.

<sup>14</sup> Include; Askari Commercial Bank Ltd., Bank Al-Habib Ltd., Bank Al-Falah Ltd., Bolan Bank Ltd., Faysal Bank Ltd., Metropolitan Bank Ltd., PICIC Com. Bank Ltd., KASB Bank Ltd., Prime Com. Bank Ltd., Saudi Pak Com. Bank Ltd., Soneri Bank Ltd., The Bank of Khyber, The Bank of Punjab and Union Bank Ltd.

<sup>15</sup> The reasons for slackness in disbursements are discussed at page 22 of SBP's third quarterly report for FY03.

### Recovery

A key problem in agri-credit over the last decade has been the substantial rise in the outstanding stock of agri-loans. However, a significant trend improvement has been visible in recent years; since FY00 the total amount recovered by all the banks has stood higher than the annual disbursement. Clearly, banks now appear to be abiding more rigorously by the rules set in the prudent regulations, as testified by the increase in recoveries by 11.6 percent in FY03 and 11.7 percent in FY02. ZTBL with 17.1 percent higher recovery than the amount disbursed during FY03 emerged as the recovery leader during the year, followed by PPCB and commercial banks.

It should be noted that the continuing rise in the stock of agri-credit outstanding therefore owes more to the accrued interest on the past-due loans rather than the impact of fresh non-performing loans. As a result, the rate of increase in the outstanding amount of agricultural loans has slowed. During the period between FY00 and FY03, the average annual growth in outstanding loans was at 7.2 percent as against the 15.9 percent growth prevailing during the period between FY94 and FY98.

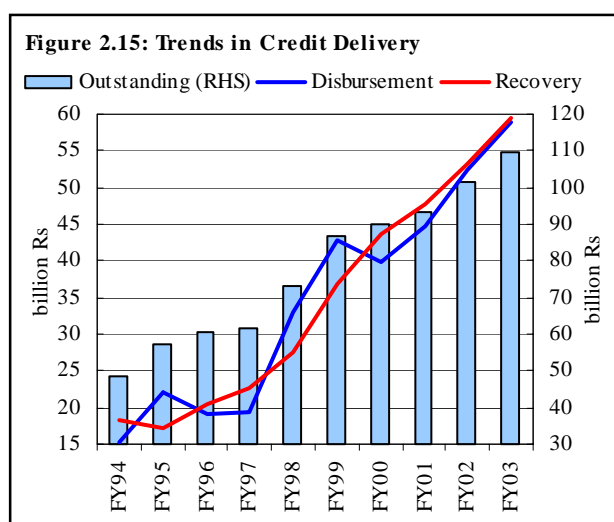
Although the trend of higher recovery compared to disbursement is continuing since FY00, its intensity is weakening (see **Figure 2.15**). This clearly suggests that much of the potential recovery out of the past dues has probably already been achieved.

Nonetheless, the relatively better recovery profile of agri-credit is encouraging given that this is a prerequisite for the sustainability of the credit growth in the sector as well as for the reduction of the significant associated risk premium.

### Market Loans

Banks provide these loans to different buyers in the market to augment their liquidity position at the harvest time of crops. Presently, these loans are being provided routinely to the public and private sector for the purchase of wheat and tobacco, as well as occasionally for cotton and rice. These loans, though not directly disbursed to farmers, provide indirect relief to them by strengthening the market for their produce and thereby reducing the chance of an abrupt (harvest-season) fall in prices and also by reducing the time lag on deferred payments.<sup>16</sup> Thus, in effect, the market loans do not create any additional demand for the commodity as much as simply re-shuffling the demand pattern up-front i.e., more skewed towards the supply pattern. Thus the coincidence of supply side seasonality with that in demand leads to more favorable equilibrium prices for the farmers.

To enhance the scope of market loans, particularly at harvest of wheat, and to reduce the governments' wheat purchases, the buyers in private sector were provided priority bank finance to timely act in the market.<sup>17</sup> During April - June 2003, Rs 7.0 billion were given to private sector for purchase of wheat, which was phenomenally higher than the credit of Rs 1.5 billion provided during the same period last year. This had the salutary impact for growers; the harvest-time market price



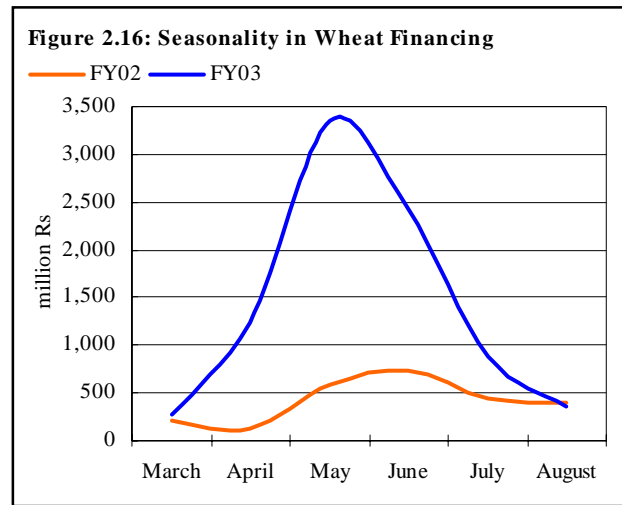
<sup>16</sup> The commission agents and the wholesalers while absorb the bulk supplies of wheat; issue the vouchers to the farmers against the sale of wheat for deferred payments at some future date.

<sup>17</sup> To facilitate wheat purchases in the private sector, the SBP in February 2003 had issued a circular to all commercial banks to provide finance to individual borrowers on a market-based markup (linked with 6-month weighted average T-bill rates).



remained not only stood higher than the FY02 market price but also more than the procurement price. Moreover, quicker payments were made to growers.

The availability of bank credit thus appears to be at least as effective as direct market interventions. Following this success for wheat, the policy may also be tested in case of rice, sugarcane and the other important crops. The market loans carry a strong element of seasonality depending on the harvest pattern of the crop. In case of wheat, the momentum in financing starts to develop in April and continues till end of July with the peak reaching between May and June. Although the credit disbursed for FY03 wheat crop was significantly higher than FY02, it was seen following the same seasonality in both the years (see **Figure 2.16**).



### 2.3 Industry

Similar to FY02, a broad based recovery was witnessed in the industrial sector during FY03; all the sub-sectors witnessed improvement except, *electricity & gas generation*, which showed negative growth over the preceding year.<sup>18</sup> The growth in *large-scale manufacturing* sector was particularly impressive given the high base set by the strong growth registered during the past two years. This consistency in the growth reflects rising aggregate demand and the accommodating monetary policy stance of the SBP.



#### 2.3.1 Value Addition in Industry<sup>19</sup>

Industrial value added, measured at the constant factor cost of 1980-81, registered a significant growth of 5.44 percent during FY03, almost the same (5.37 percent) as was recorded in FY02, and the second highest growth recorded in the last ten years (see **Figure 2.17**).

While *manufacturing* and *mining & quarrying* saw acceleration in growth, *construction* witnessed a slowdown, and value addition in

**Table 2.14: Sectoral Growth of Industrial Value Added**  
at constant factor cost of 1980-81

Description	Percentage change		Sectoral shares	
	FY02	FY03	FY02	FY03
Construction	4.25	3.38	13.30	13.04
Electricity & Gas Dist.	8.45	-3.94	14.61	13.31
Manufacturing	5.00	7.67	70.23	71.72
Large-scale	4.87	8.65	49.55	51.06
Small-scale	5.31	5.31	20.68	20.66
Mining & Quarrying	3.68	9.53	1.86	1.93
<b>Industry</b>	<b>5.37</b>	<b>5.44</b>	<b>100.00</b>	<b>100.00</b>

Source: Economic Survey 2002-03

<sup>18</sup> Its share in industrial sector during FY03 was 13.2 percent.

<sup>19</sup> Analysis in this section is on the basis of value-added estimates for FY03 based on July 2002-March/April 2003 data. Since, the full year production data is available for LSM, mining and electricity generation, the analysis of these sub-sectors would be carried out under the sub-section of Industrial Production (**Section 2.3.2**). However, the analysis of *construction* and *electricity & gas distribution* would continue to be based on value addition data.

*electricity & gas distribution* registered a decline during FY03. However, the dominant contribution came from *large-scale manufacturing* (LSM) with an 8.7 percent growth that more than offset decline recorded in *electricity & gas distribution* (see **Table 2.14**).

*Small-scale manufacturing* (SSM) registered the usual (constant) growth of 5.3 during FY03. However, this assumed growth rate of SSM seems to be an underestimate given the strong showing by LSM (traditionally SSM has strong backward linkage with LSM, particularly, in key sub-sectors such as textile that recorded strong FY03 performance) and large increase in exports supplied by SSM sector.

### 2.3.1.1. Construction

The growth in value addition by the construction sector slowed to 3.4 percent during FY03 compared to the 4.3 percent growth during FY02, mainly due to an increase in the cost of construction material. However, revitalization of House Building Finance Corporation (HBFC), the entry of commercial banks in the housing finance (mortgage financing) market, and increased development expenditures were the major factors sustained the growth in construction sector during FY03 (see **Table 2.15**).<sup>20</sup>

**Table 2.15: Construction -- Performance Indicators**

	Unit	Five-year average (FY98-FY02)	FY02	FY03
Value added by construction	billion Rupees	22.4	23.3	24.1
Development expenditures	-do-	102.8	126.2	129.2
Gross fixed investment	-do-	1.3	1.0	1.1
Import of construction & mining machinery	-do-	5.7	7.3	5.9
Financing for housing by HBFC	million Rupees	731.3	24.6	781.8
Sale of steel	000 tons	971.8	881.0	1294.0
Cement dispatches	000 tons	9,724.8	9,939.6	11388.9

Under the public sector development program, the construction of Gwadar port, national highway & motorway projects, Gomal Zam dam, housing construction under the Pakistan Housing Authority and construction of Kohat Tunnel were the major projects either initiated during FY03 or continued from previous years. Among these, some of the projects have been completed during the course of FY03 while construction of Gwadar port, roads and overhead bridges is in progress. During FY03, more than 78 percent work on the construction of 4,564 housing units was completed under the government-housing program.

However, the gap between housing requirements and housing supplies has been expanding.<sup>21</sup> In order to meet the growing housing requirements, a number of measures have been initiated over the last two years (see **Box 2.1**).<sup>22</sup>

Although these measures are expected to boost housing construction, there is a need to support the initiative by measures to reduce the cost of construction material, which have increased sharply during the second half of FY03 (see **Figure 2.18**). More specifically, the prices of two major construction materials, cement and iron & bars, increased significantly. Although cement prices declined in the middle of FY03 when a cartel broke down, the revival of the cartel subsequently pushed cement prices back up to the range of Rs 220 to 235 per bag. In fact, even a reduction in the excise duty (by

<sup>20</sup> In fact, traditionally, the construction sector has been usually linked with public sector spending program (covering infrastructure, education, healthcare and housing projects), and it was the persistent decline in development expenditures that had contributed strongly to slowdown in construction activities during FY99 to FY01.

<sup>21</sup> Estimates by Pakistan Housing Authority shows that growing population requires 570,000 housing units every year against average construction of 300,000 housing units.

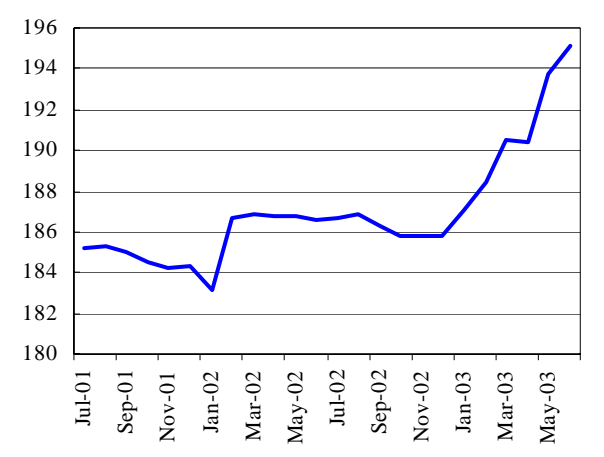
<sup>22</sup> The government of Pakistan also notified the housing and construction as a priority sector.

25 percent) in Federal Budget for FY04 has not been reflected in cement price from July 2003 onward.<sup>23</sup> Similarly, the prices of billets, a product of Pakistan Steel and used in re-rolling mills as raw material, increased by Rs 4,800 per ton during FY03.<sup>24</sup>

### 2.3.1.2 Electricity & Gas Distribution

Provisional estimates show that ‘*electricity & gas distribution*’ was the only industrial sub-sector that recorded a decline in value addition during FY03. This appears to be at variance with the available consumption and production data for the period. Not only did electricity generation and consumption increase during FY03, the cost of electricity generation probably declined, given the increased availability of cheaper hydroelectric power, (lower dependence on costly power from IPPs), and conversion of some thermal capacity to relatively less costly fuels (coal and gas).<sup>25</sup>

Figure 2.18: Building Material Price Index



#### Box 2.1: Measure Taken to Boost Housing and Construction

The housing sector is recognized as a productive economic activity because it contributes through a high multiplier effect with a host of beneficial forward and backward linkages in the economy. There are at least 40 industries, which are directly or indirectly related with housing construction. Realizing the shortage of houses and importance of housing construction, both the Government and State Bank of Pakistan have announced several key measures to give thrust and resounding dimensions to construction sector.

*Firstly*, National Housing Policy was approved in December 2001, under which, the Katchi Abadies will also be regularized and dwellers are being given ownership rights. Under this program, 28 Katchi Abadies having 9,293 houses were regularized during FY02. *Secondly*, a tax incentive was provided to borrower in the form of tax deductibility of mark up (the limit was increased to Rs 500,000 or 40 percent of the income -- whichever is less). Similarly, the limit of property income for withholding tax was enhanced to RS 0.2 million (from RS 0.1 million) and the rate of withholding tax was reduced to 5 percent (from 7.5 percent). *Thirdly*, in order to minimize the financial burden and encourage documentation of property, the provincial governments were asked to rationalize duties (stamp duty, registration fees etc.). *Fourthly*, the government allowed import of construction machinery at a concessionary import duty of 10 percent. *Fifthly*, the government reduced excise duties on cement, while excise duty on wire and cables was abolished.

The State Bank of Pakistan, on the other hand, has taken a number of steps to promote housing finance. These include:

- The limit for mortgage loans by commercial banks was increased to Rs 7.5 million from previous limit of Rs 5.0 million.
- Debt to equity ratio was changed from 70:30 to 80:20.
- The maximum loan period was enhanced from 15 years to 20 years.
- The foreclosure law was amended to allow the banks to repossess the property without recourse to court.
- The exposure limit was doubled to 10 percent of their net advances and encouraged to develop floating rate products.

In addition, the SBP brought together all stakeholders to identify constraints, issues and find solutions aimed at expanding housing finance. The SBP has also suggested banks to float long term bonds against housing finance to avoid the mismatch between long term financing and their short term deposits. In view of these developments, a number of banks have started housing finance. During FY03, banks' outstanding financing for housing loans stood at Rs 3.8 billion.

<sup>23</sup> If the incidence of GST is combined with reduced CED, the reduction of taxation per bag of cement is Rs.14.37, which was not seen in the post budget prices of cement.

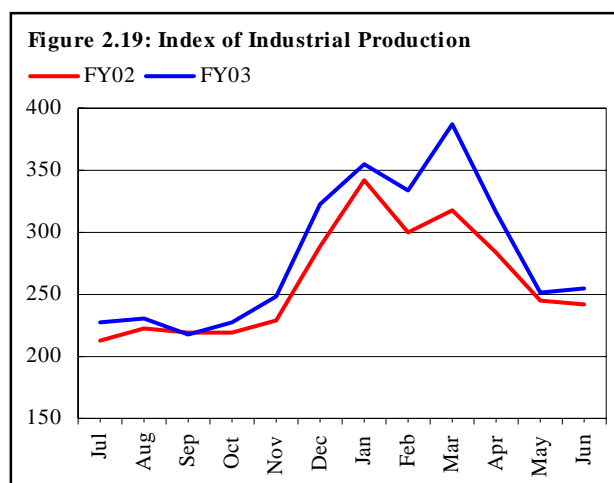
<sup>24</sup> However, this was raised gradually in view of increase international prices.

<sup>25</sup> The Bin Qasim Power Station, the largest power plant of KESC, was converted to gas.

Taken together, this suggests that value addition by WAPDA should have increased, unless offset by an increase in cost on account of growing power losses (transmission & distribution losses) and theft. Interestingly, this confusing FY03 picture appears quite similar to situation in FY02; the provisional estimates for FY02 had also initially recorded a decline, but in the revised data, this turned into a significant growth. In light of this, it seems more appropriate to rely instead on the available data on annual production for FY03 until the revised estimates are available (see **Section 2.3.2.2**).

### 2.3.2 Industrial Production<sup>26</sup>

The Index of Industrial Production (IIP), showed a 7.6 percent growth during FY03 compared to a 3.3 percent rise in FY02, as the output from all three components recorded significant increases (see **Table 2.16** and **Box 2.2**). In fact, growth in the production of large-scale manufacturing and mining accelerated during FY03, dominating the (reported) relative slowdown in electricity generation. As a result, in aggregate, FY03 production remained higher than in the previous year, even during the seasonal decline witnessed in the second half of FY03 (see **Figure 2.19**).



#### Industrial production by end-use

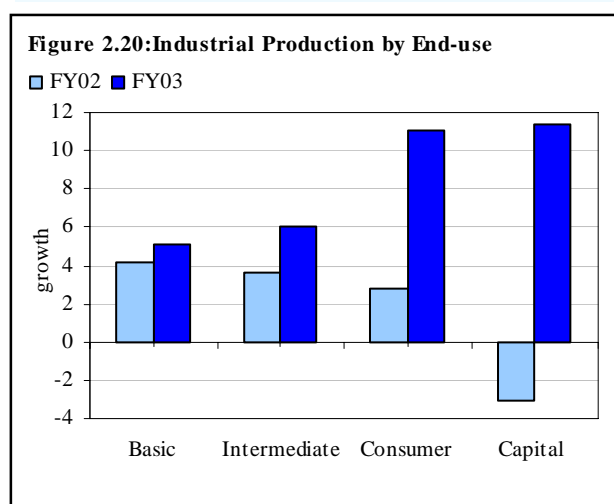
The production of all industrial groups (by end-use) increased during FY03, but it was the improvement in the production of *consumer goods* and *capital goods* that registered the greatest improvement. The strong performance of consumer goods, in turn, stems largely from a remarkable 46.7 percent growth in the production of consumer durables during FY03, which represents a massive jump from a 5.6 percent growth figure recorded during FY02. This unprecedented increase was largely due to higher production of vehicles and home appliances (electronics), both of which benefited from the increased availability of cheap consumer finance.

The improvement in the consumer goods production also received support from consumer non-durables production, which edged up during FY03. However, arguably, it was the turnaround in the production of capital goods that was one of the most important developments of FY03. This turnaround was mainly due to higher production of textile machinery, transformers (mainly for exports), electric

**Table 2.16: Growth in Industrial Production**  
percent

	FY02	FY03
LSM	2.8	8.0
Electricity generation	5.8	5.4
Mining & quarrying	2.2	10.1
<b>Overall</b>	<b>3.3</b>	<b>7.6</b>

Source: Federal Bureau of Statistics



<sup>26</sup> In order to monitor on going developments in industrial output during the year, the SBP has developed an Index of Industrial Production based on 12-month quantum data on LSM, mining industries and electricity generation (see **Box 2.2, Part A**). Therefore, the growth rates should not be compared with those on the basis of value addition data.

**Box 2.2: Indexes of Industrial Production and Infrastructure Industries****A. Index of Industrial Production**

The industrial sector of Pakistan comprises manufacturing, the construction, mining & quarrying and electricity & gas distribution. There are two types of data sets available on the industrial sector: (1) value addition data, which available on an annual basis only at the end of each fiscal year and; (2) production data (quantum), which is available on a monthly basis for LSM, mining and electricity generation. The initial value added estimates for any year is usually projected on the basis of trends in first 9-10 months of the year. Therefore, industrial growth estimates change (often dramatically) when revised (full year) data is available the next year. Further, the non-availability of value added data on annual basis also limits the scope of mid term analysis of the industrial sector in SBP Quarterly Reports solely to trends/developments in LSM.

Therefore, to enhance the coverage of industrial output and to discuss more representative trends in industrial growth through each quarter, an Index of Industrial Production (IIP) has been constructed by taking the advantage of quantum data available on a monthly basis. The IIP comprises large-scale manufacturing, mining industries and electricity generation. This is a weighted index and covers 60 percent of industrial value added during 1980-81.

**Methodology**

In order to construct a weighted index, Laspeyre's formula was used where the weights of the industries falling under LSM and mining were converted from their existing weights in Quantum Index of Manufacturing and Minerals using the following formula:

$$W_i = (w_{kj} \cdot s_k) \div 100, k = 1, 2$$

Where,  $W_i$  is the weight of the component industry in overall industrial sector during 1980-81;  $w_{kj}$  is the weight of the component industry in Quantum Index of Manufacturing or Quantum Index of Minerals during 1980-81 and;  $s_k$  is the ratio of value added by the component industry in total industrial value added during 1980-81.

However, in case of LSM, first the existing weights were converted so as to ensure that the sum of individual industries' weights turn out to be 100. Second, in order to get industry-consistent weights, the weights of the component industries were multiplied by the share of LSM in industry in 1980-81. Similarly, weights of mining industries were derived from their existing weights used in the construction of Quantum Index of Minerals. However, the weight of electricity generation was calculated as ratio of gross value addition by electricity generation (benchmark estimates) to gross value addition of the industrial sector during 1980-81.

**B. Index of Infrastructure Industries**

Infrastructure sector is considered as the most important source of economic growth, mainly due to its simultaneous impact on capacity creation and improvement in productivity. In fact, the infrastructure sector provides critical inputs for the commodity-producing sector of the economy. Generally speaking, variations in the production of infrastructure industries appear to be followed by (more or less) similar variations in the overall economy.

Given the importance of the infrastructure sector while analyzing the general behavior of economic activities, a composite index of selected infrastructure *industries* has been constructed for Pakistan. This is a weighted index of seven infrastructure industries (electricity generation, petroleum refining, crude oil, natural gas, coal, cement, and basic metals) taking 1980-81 as base year. In essence, this is a sub-set of IIP and represents 19 percent value addition in industrial sector during 1980-81.

It is also important to note that index of infrastructure industries does not represent the overall infrastructure sector. This is first such attempt and it is open for improvement in terms of enhancing its coverage. Inclusion of indicators such as cargo handled at ports, railway cargo, storage capacities in agriculture & industry, net addition in switching capacity by PTCL etc. would enhance usefulness of the index. Yet, looking at these industries and services from the view point of key indicators such as net addition in capacity and net investment in key infrastructure industries would be much valuable.

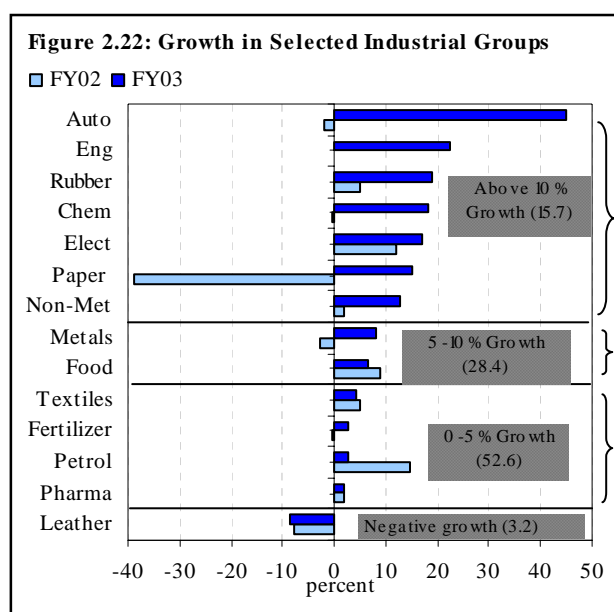
**Data Constraints**

Here it is also necessary to flag some data problems in analyzing the performance of the industrial sector. These problems are mostly related to coverage, timely availability and authenticity of the data on industrial production. While the data on LSM is available with a lag of 40 to 45 days, this lag increases to 60 days in case of mining and electricity generation. In addition, production data on same variable reported in different publications such as Economic Survey, Monthly Statistical Bulletin (FBS) and statements provided by FBS usually differ. Moreover, the reported LSM data does not cover some of important large-scale industries such as value added textile, synthetic fiber, re-rolling mills, a engineering items—plants & machinery etc.

motors, commercial vehicles, etc. Finally, the higher production of basic and intermediate goods simply reflects the demand stemming from the capital and consumer goods production (see **Figure 2.20**).

### Infrastructure industries

The production of infrastructure industries remained robust during FY03. The composite index of seven infrastructure industries, with a combined weight of 18.8 percent in IIP (see Box 2.2), recorded a 6.1 percent growth during FY03 compared to a 5.6 percent increase in FY02. Although the production of all seven infrastructure industries increased, the growth in the production of cement, steel, natural gas and coal was particularly strong. Higher demand from construction and engineering-related industries boosted the production of the first two, while increasing use of CNG in vehicles, conversion of electricity generation (to gas) and cement production (to coal) were the driving forces behind higher production of the latter.



However, despite increasing policy attention and foreign investment, production of crude oil increased only marginally, by 1.1 percent, during FY03. Production of petroleum products also recorded a moderate increase of 2.5 percent due to the normalized base.<sup>27</sup>

### 2.3.2.1 Large-scale Manufacturing

Large-scale manufacturing (LSM) continued its broad-based growth throughout FY03. The 8.0 percent growth registered by LSM during FY03 was almost three times the growth rate in the previous year (see **Tables 2.17 & 2.18**). Other than higher sugar output, significant increase in the production of consumer durables (automobile and electronics)

**Table 2.17: Large-scale Manufacturing Growth Rates**  
percent

	FY02	FY03
Overall	2.8	8.0
Excl. sugar	1.6	7.1
Excl. automobile	3.0	6.2
Excl. automobile & electronics	2.7	5.6

Source: Federal Bureau of Statistics

production, higher output of construction-related material and expansion in exports of textile products were the major factors behind this broad based growth in LSM.

A notable feature in the structural transformation of LSM growth during FY03 was the rapidly expanding role of LSM groups that have less weight in the Quantum Index of Manufacturing. This phenomenon, if sustained, could also impart resilience to LSM growth.

During FY03, except for leather products, all LSM groups saw an increase in production, with six sub-groups showing acceleration in growth. As evident from **Figure 2.22**, most of the low-weight industrial sub-groups recorded significant increase in growth. Among these, automobile, electronics,

<sup>27</sup> The commencement of production by PARCO, with an installed capacity of 4.5 million tons, in FY01, had pushed up growth in the production of petroleum products during FY01 and FY02 due to a low base effect.



engineering, chemicals, paper & paperboard and non-metallic minerals sub-groups recorded more than 10 percent growth.

**Table 2.18: Growth in the Production of Large-scale Manufacturing Industries**

Items	Weights	Percentage change		Items	Weights	Percentage change	
		FY02	FY03			FY02	FY03
<b>Textile</b>	<b>12.930</b>	<b>5.01</b>	<b>4.07</b>	<b>Chemicals</b>	<b>1.5833</b>	<b>-0.39</b>	<b>18.33</b>
Cotton yarn	6.001	5.09	6.18	Caustic soda	0.4211	3.31	9.34
Cotton cloth	3.310	15.97	1.66	Soda ash	0.2170	17.18	10.09
Cotton ginned	2.640	-1.23	-4.71	Other six items	0.9452	-7.79	29.33
Other five items	0.980	-7.73	13.06	<b>Electronics</b>	<b>1.512</b>	<b>12.08</b>	<b>17.10</b>
<b>Food &amp; tobacco</b>	<b>11.755</b>	<b>8.76</b>	<b>6.62</b>	Electric transformers	0.391	39.94	30.27
Sugar	5.852	9.89	13.48	TV sets	0.246	14.69	68.38
Vegetable ghee	2.037	-4.50	-6.75	Air conditioners	0.081	-47.89	224.25
Cigarettes	1.699	-5.41	-10.42	Refrigerators	0.010	14.26	19.86
Tea	1.210	18.15	5.15	Other five items	0.783	8.36	-6.66
Beverages	0.654	-2.91	-7.25	<b>Automobile</b>	<b>1.592</b>	<b>-2.09</b>	<b>45.00</b>
Cooking oil	0.304	30.67	-0.99	Trucks	0.473	19.85	71.25
<b>Petroleum products</b>	<b>5.305</b>	<b>14.64</b>	<b>2.52</b>	Tractors	0.402	-25.26	8.92
<b>Fertilizers</b>	<b>3.981</b>	<b>-0.45</b>	<b>2.79</b>	LCVs	0.250	21.91	43.38
Nitrogenous	3.689	5.52	3.95	Cars & jeeps	0.210	2.83	53.69
Phosphatic	0.292	-51.90	-19.31	Motorcycles	0.169	13.13	32.44
<b>Pharmaceuticals</b>	<b>3.583</b>	<b>2.04</b>	<b>1.96</b>	Buses	0.088	-17.80	22.47
Tablets	1.834	5.17	2.12	<b>Non metallic minerals</b>	<b>1.299</b>	<b>1.98</b>	<b>12.68</b>
Syrup	1.086	-3.91	3.29	Cement	1.252	1.61	12.11
Injections	0.316	7.54	-5.72	Glass sheets	0.047	13.09	28.07
Capsules	0.155	-1.16	-0.05	<b>Paper &amp; board</b>	<b>0.921</b>	<b>-38.73</b>	<b>15.04</b>
Other two items	0.192	10.92	10.44	<b>Engineering items</b>	<b>0.483</b>	<b>-0.03</b>	<b>22.41</b>
<b>Metal industries</b>	<b>2.175</b>	<b>-2.72</b>	<b>8.05</b>	Bicycles	0.236	-2.84	13.79
Pig iron	1.002	-2.65	9.33	Safety razor blades	0.074	5.15	5.96
Coke	0.894	-3.16	11.60	Diesel engines	0.044	-36.00	1939.84
Billets	0.211	-0.64	-0.88	Sewing machines	0.035	-10.53	27.23
H.R/coils and plates	0.050	-13.39	42.60	Power looms	0.035	92.47	-1.96
C.R coils/plates/sheets	0.009	-14.59	14.73	Other five items	0.059	-9.89	2.69
<b>Leather products</b>	<b>1.582</b>	<b>-7.79</b>	<b>-8.42</b>	<b>Tyres &amp; tubes</b>	<b>0.306</b>	<b>4.88</b>	<b>18.97</b>

Note: The weights of the manufacturing industries are adjusted so as the sum of total weights becomes 100.

Source: Based on data from FBS

More specifically, most of the growth in LSM was in the production of *durables* such as vehicles, TV sets, refrigerators, air conditioners, transformers, engineering items and construction material. Cheap consumer financing schemes by commercial banks and leasing companies (see **Box 6.2**), reduction in prices (motorcycles, cars, refrigerators, air conditioners and TV sets), introduction of new models, heavy inflow of remittances and improvement in agriculture sector have resulted in higher sale of durables during the year (see **Table 2.19**).<sup>28</sup>

The production of *vehicles* saw a phenomenal increase of 45.0 percent during FY03 compared with a decline of 2.1 percent in FY02. The manufacturing of automobiles, especially passenger vehicles, has

<sup>28</sup> Following cut in motorcycle prices due to increased competition by Chinese manufacturers, some of the car manufacturers also reduced prices: Pak Suzuki cut prices by Rs 2,000 to Rs 3,000 and Honda Atlas by Rs 10,000 to Rs 12,000.

been on the rise since the second half of FY02 mainly due to increased availability of car financing (see **Figure 2.23**). On the other hand, the revival in sales of commercial vehicles and tractors during FY03 reflects the general improvement in economic activity.

While it is true that the auto-manufacturing has contributed significantly to the economy in terms of investments, tax revenue and employment, it should be clear that the windfall gains to the auto sector stem directly from the protective tariff policy.<sup>29</sup> It is, therefore, inappropriate to talk of “the role of market forces” only when determining prices of domestically produced cars. Clearly, manufacturers should share some of their windfall gains with consumers, who eventually pay the price for their market protections. In addition, the usurious “early delivery” premium charged by dealers/investors, needs to be addressed (see **Table 2.20**).

In addition to financing for the purchase of home appliances, Emerging Electronics Products Assembly Scheme (EEPAS) and phasing out of deletion program have been other factors supporting higher production of *electronics*. Due to a shift in policy, assembling of electronics, especially TV sets and air conditioners and refrigerators, has increased tremendously over the last two years.<sup>30</sup>

A few years back, the phasing out of deletion (indigenization) program in electronics was initiated in view of WTO Agreements on Trade Related Investment Measures (TRIMs). Although there was 100 percent achievement in deletion of electric transformers and electric motors, deletion in refrigerators, air conditioners and other electronics remained about 80 percent. Deletion in automobile production continued, but has been progressing at snail’s speed over last couple of years (see **Box 2.3**).

Growth in the output of large-scale manufactured *textile* products slowed during FY03, mainly due to higher cotton prices (see

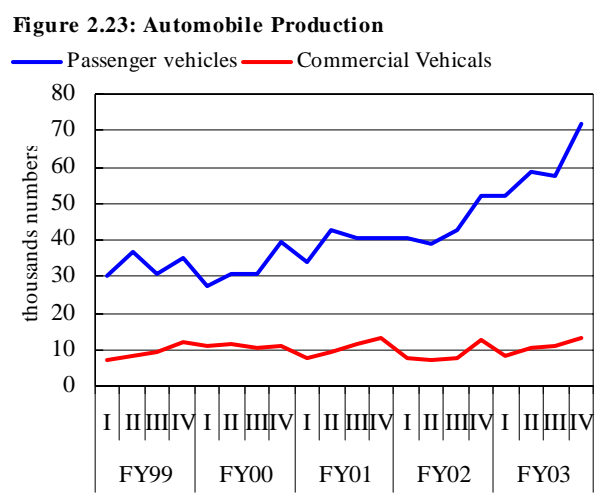
**Table 2.19: Impact of Consumer Financing on Industrial Production During FY03**

	Growth (percent)	Increase in capacity utilization (percentage points)
Automobile	45.0	13.7
Air conditioners	224.3	4.2
Refrigerators	19.9	10.3
TVs	68.4	na
Steel	8.1	10.0
Cement	12.1	7.3
Glass plates & sheets	28.1	0.0
Paints & varnishes (liquid)	77.4	na
Industrial chemicals	9.8	8.4

**Table 2.20: Dealers’ Return from Booking a Car—A Hypothetical Example**

Investment	
Supposing 100 payment at the time of booking	1,000,000
No. of months an investor has to wait for delivery	10
Cost of booking a car <sup>1</sup>	58,333
Premium	250,000
<b>Return</b>	<b>191,667</b>

<sup>1</sup> Assuming 7 percent rate at which he can borrow funds



<sup>29</sup> Around US\$ 252 million has been invested by the existing manufacturers for expansion, and new plants by Raja Motors, Delta Innovations Ltd., and parts & accessories manufacturers over the last three years (1999 to 2002).

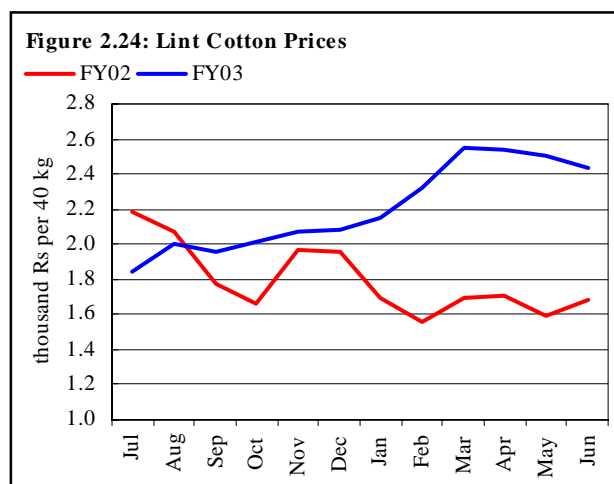
<sup>30</sup> Under EEPAS, the condition of deletion was relaxed for the next five years and import of raw materials, components and sub-components (in CKD forms) for transformers, TV sets and other electronics such as calculators, CD player, VCD, cellular phone etc. were allowed at 5 percent duty, which was higher under the deletion program. This scheme has been applicable since July 2002. However, in case of refrigerators, air conditioners, transformers, motors etc, duty on import of components and sub-components in CKD form was brought down 10 percent from 15 percent in FY01, while duty on import of raw materials continued to be 5 percent.

**Figure 2.24).** However, overall exports of textile originating from both LSM and SSM continued to expand on the back of stable exchange rate, low refinance rates, increased market access (EU increased quota by 15 percent and granted duty free access to value added textile products) and the free cotton trade regime.<sup>31</sup>

These positive developments have also encouraged investment in textile industry for Balancing, Modernization and Replacement (BMR) along with expansion in existing capacity (see **Table 2.21**). Over the last four years, the industry has made an investment of US\$ 3 billion, out of which, approximately US\$ 1.3 billion was financed by the banking sector under Textile Vision 2005, while the remaining came from equity and self financing. This BMR and capacity expansion in the textile industry is also reflected in rising imports of textile machinery during the last few years (see **Figure 2.25**).

Despite a significant 13.5 percent increase in sugar production, growth in the production of *food, beverages & tobacco* sub-group remained lower (6.6 percent) during FY03, compared to FY02. This was mainly due to a sharp decline in the production of vegetable ghee, cigarettes and beverages (6.8, 10.4 and 7.3 percent respectively).<sup>32</sup>

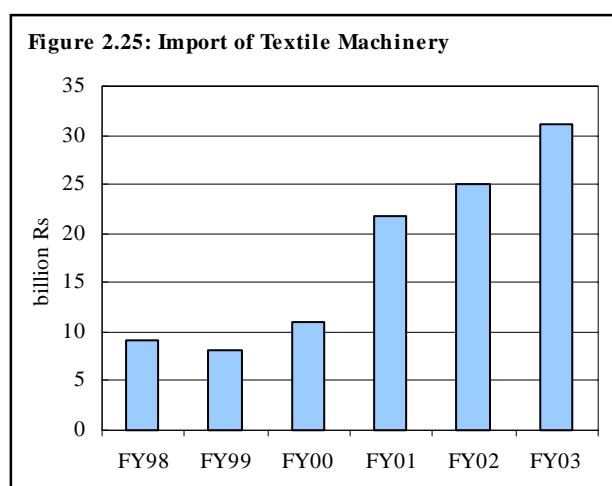
The significant improvement in the production of *metals, non-metallic minerals (cement and glass)* and *other construction related industries (paints & varnishes)* received a boost from improvements in construction activities during FY03. More specifically, the production of steel and cement recorded significant increase in production during FY03. In addition to demand from construction sector, steel production also received a boost from the increasing requirements from the engineering and automobile industries, higher productivity due to rightsizing and occasional performance reviews of the Pakistan Steel.



**Table 2.21: Capacity Expansion in Textile Industry**

Sectors	1999	2003
Spinning (million spindles)	8.4	9.7
Weaving (shuttle looms)	200,000	200,000
Weaving (shuttle less looms)	12,000	23,600
Knitting (organized & unorganized)	12,000	15,000
Finishing/processing (Organized & unorganized)	3000 million square meter.	4600 million square meter.
Toweling (looms)	9,250	NA
Made ups (looms)	50,000	NA
Garmenting (sewing machines)	400,000	NA

Source: All Pakistan Textile Manufacturers Association (APTMA)



<sup>31</sup> Exports of textile products increased by 25.0 percent during FY03 compared to 0.3 percent in the previous year.

<sup>32</sup> For details on vegetable ghee, see section 2.2 of SBP's Third Quarterly Report for FY03, p 30

**Box 2.3: Indigenization Policy and Achievements**

Indigenization refers to the substitution of imported components and sub-components with locally manufactured ones. In order to attain self-sufficiency, Pakistan had been pursuing the indigenization policy in engineering industries through deletion program since 1987. However, in 1995, the deletion program was reviewed in view of WTO Agreements on TRIMs that gave developing countries a period of five years to phase out deletion programs.

Therefore, the deletion program was converted into an Industry Specific Deletion Program (ISDP) on the recommendation of Deletion Committee of the Engineering Development Board (EDB).

Automobile and home electronics were the major industries targeted under ISDP. Under the ISDP, EDB set deletion targets in consultation with manufacturers, which were linked to sales volume of the industries. In order to encourage deletion, the industries were provided heavily protection along with a number of incentives provided to assemblers and vendors. The rate of custom duty on import of vehicles ranged from 100 to 250 percent depending on various engine capacities. In addition, the import of used cars was also disallowed. On the other hand, the import of raw materials, components, sub-components and assembling machinery/accessories was allowed at concessionary rates of duty ranging from zero percent for (e.g., tractors) to a maximum of 35 percent ad valorem (through various SROs issued in 1995 till date).

Despite the facilitation, the results in terms of localization of parts have been mixed at best (see **Table 2.3.1**). Though electronics & apparatus have achieved relatively higher level of deletion (average was 86.8 percent), electric transformers and electric motors are only two items that could achieve 100 percent deletion. On the other hand, the deletion levels have surpassed 80 percent mark only in some categories of motorcycles and tractors, whereas in cars 60.3 percent and in commercial vehicles 50.1 percent indigenization has taken place. The level of deletion achieved in automobile is particularly low; given that as the industry has been enjoying the most protected status, the pace of deletion should have been more. Interestingly, although the deletion targets are linked with industry's sale volume, even the targets set during the last two years do not reflect increased volume.

**Table 2.3.1: Deletion in Automobile--Targets v/s Achievement**  
Percent

Vehicle Category	FY00		FY01		FY02		FY03
	Achievement	Target	Achievement	Target	Achievement	Target	Target
<b>Passenger vehicles</b>							
Cars (800 to above 1200 cc)	55.3	58.3	59.0	60.3	60.3	62.4	62.4
Motor cycles (100 to 175 cc)	74.5	80.0	77.0	82.5	82.5	84.5	84.5
<b>Commercial vehicles</b>							
Trucks and buses (8 to 30 tons)	48.2	48.6	48.9	49.2	50.1	49.7	49.7
Tractors (40 to 80 HP)	69.3	71.5	70.5	72.8	72.8	-	-

Note: Achievement is measured as a ratio of cost of parts manufactured locally to total cost of producing a unit where the total cost of parts, components and accessories is set equal to 100.

Source: EDB

The government has already started phasing out the deletion program in electronics & apparatus through tariff restructuring in view of WTO Agreements on TRIMs, (the latter will be eliminated by end 2003). The elimination of TRIMs means the member countries would not be able to impose such restrictions that bind manufacturers to use certain proportions of locally manufactured inputs and require certain products to be locally manufactured. Although the government has applied for a two-year extension, the current pace of deletion in automobiles suggests that the industry will take much longer to completely indigenize production of parts and accessories.

On the other hand, the cement industry is also closely linked with the revival of economy, in general, as the latter results in higher demand, especially from the industrial sector (for installation of new plants, machinery and expansion in building etc.). During FY03, the enhanced domestic demand was complemented by rising exports to Afghanistan, helping this sector record a turnaround during FY03 (see **Figure 2.26**).

In addition to an improvement in construction activities, the demand for glass sheets and paints & varnishes also comes from automobile sector, which performed extraordinarily well during FY03.<sup>33</sup>

<sup>33</sup> Presently, there is only one unit (Noshera Glass) which has a facility to further process glass sheets into toughened glass required for producing glass components for vehicles.

Moreover, Gunj Glass, a major glass sheet manufacturing plant in Pakistan, after completion of BMR, started production in FY02.

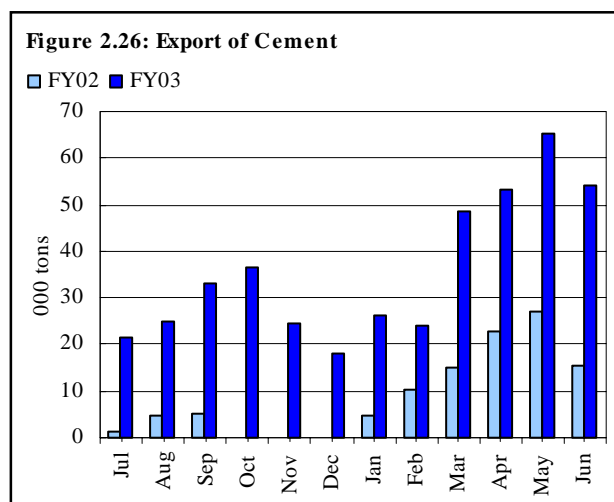
### Capacity Utilization in Large-scale Manufacturing Industries

Capacity utilization edged up in most LSM industries during FY03. The major industries that witnessed increase include automobile, electronics, engineering industries, steel, cement, sugar, fertilizer, chemicals, petroleum refining and paper & paperboard (see **Table 2.22**). The only exception was vegetable ghee and cooking oil industries.

However, despite a significant increase in industrial production, the capacity utilization in some of major industries such as sugar, cement, automobile etc., remained in the range of 60-70 percent. The major reason has been excess capacities built up during 1990s. More specifically, the sugar and cement industries have been operating below 60 percent of capacity for the last 5 years. The sugar industry has an installed capacity of crushing 65 million tons sugarcane per annum, while average sugarcane production over the last five years (FY98 to FY03) remained 49.1 million tons.

In case of cement, however, the negative gap may soon be even larger. During FY03, there were 22 cement plants operating with an installed capacity of 16.7 million tons per annum, while 5 plants with an installed capacity of 4.7 million tons are in the pipeline. Therefore, within a few years, the industry consisting of 27 plants would be able to produce 21.4 million tons, while total demand during last three years has been just 9.9 million tons per year.

While the stagnant cement sale did witness a partial revival during FY03, when cement dispatches (local and exports) saw an increase of 14.6 percent, the capacity utilization level remained a low 67.9 percent. This anomaly stems from the existence of a cartel, which has kept prices at artificially high levels, constraining demand, and encouraging the misallocation of investment. This is put into perspective by **Figure 2.27**, which shows the projected increase in capacity in coming years, resulting in prospects of widening demand-supply gap even in the face of optimistic demand growth assumptions.<sup>34</sup>



**Table 2.22: Capacity Utilization in Selected Industries**  
percent

Industry (by groups)	FY02	FY03
Food (sugar, ghee & cooking oil)	45.6	48.6
Sugar <sup>1</sup>	56.5	64.5
Textile (spinning)	79.1	83.7
Textile (weaving)	44.9	47.6
Cement	60.5	67.8
Electronics (refrigerators and air conditioners)	26.9	34.1
Automobile	46.7	60.4
Polyester staple fiber	86.8	-
Polyester filament yarn	78.1	88.0
Petroleum refining	81.2	83.3
Steel	81.0	91.0
Fertilizer	88.0	90.7
Industrial chemicals (soda ash and caustic soda)	86.1	94.5
Paper & paper board	82.7	95.1

<sup>1</sup> The ratio of sugarcane crushing capacity to sugarcane crushed  
Note: In case of Textiles, the figures refers to Mills sector (composite)  
Source: EAC-Ministry of Industries & Production, Manufacturers Associations, Textile Commissioners Organization

<sup>34</sup> The loss of consumer surplus due to the presence of the pricing cartel is highlighted by the sharp 35 percent decline (to Rs 170 from Rs 230 per bag) during mid of FY03 when the cartel had reportedly broken down.

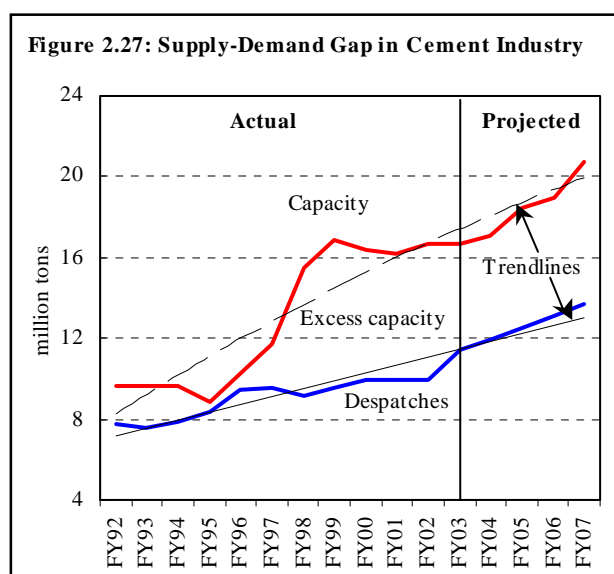
In durables too, the level of capacity utilization ranged between 60 and 70 percent. More specifically, passenger and commercial vehicles, refrigerators and air conditioners have still had large unutilized capacity by end-FY03 (see **Box 2.4**).

However, there are some large-scale industrial groups operating at almost full capacity. These include fertilizer, chemicals, petroleum refining and paper & paperboard industries. The urea fertilizer and soda ash industries are two examples where there is over utilization in capacities (105.6 in urea and 106.1 percent in soda ash). Although, these industries are operating at full capacity, heavy imports are required to meet the country's requirements (see **Table 2.23**).

### 2.3.2.2 Electricity Generation

Production of electricity increased by 5.4 percent during FY03 compared to 5.8 percent in previous year, mainly due to an improvement in water availability and higher demand from industrial and agriculture sectors during FY03. In addition, total number of household consumers also increased from 12.7 million in FY02 to 13.0 million in FY03. However, increasing import of power generating machinery over the last three years indicates growing trend of establishing in-house power plants (captive power plants) by the manufacturing industries.<sup>35</sup>

On the basis of the growing power requirements of the country, the government has projected electricity shortage of electricity in post FY05 period.<sup>36</sup> Keeping in view long gestation period to build a hydel power plant, the government has therefore announced Policy for Power Generation Projects 2002 (Ref.: Economic Survey 2002-03) to fill the future demand-supply gap. A number of fiscal and financial incentives have been provided in the policy. This is encouraging to note that focus of the policy is development of power projects based on hydel and indigenous fuel. Encouragingly, 12 companies have already shown an interest in to setting up power plants.



**Table 2.23: Production and Sale in Selected Industries**

million tons unless specified

Industry	Production		Sale
	FY02	FY03	FY03
Urea	4259.6	4401.9	4262.3
DAP	Closed since last year		1101.6
Petroleum products	9.2	9.4	17.1
Paper & paper board	325.4	374.4	524.0
Soda ash*	255.3	281.1	279.3
Caustic soda*	150.3	164.4	200.0
Polyester staple fiber* (000 tons)	487.5	-	489.0
Polyester filament yarn (000 tons)	82.0	75.0	-

\*: The sale figures are for FY02

<sup>35</sup> This can also be substantiated from 0.2 percent increase in electricity generation capacity during July-March FY03 and less than last year growth in electricity generation despite strong growth in industrial sector.

<sup>36</sup> According to figures provided in Economic Survey 2002-03, there will be a shortage of 500 MW in the year 2005-06 that is expected to expand to 5,529 MW by FY10.



**Box 2.4: Capacity Utilization and New Industrial Investment**

A popular question that is frequently raised in the media and debated these days is: Why is not new industrial investment taking place in the Pakistan? While many different hypotheses are offered ranging from poor law and order and security situation to political instability, a more disaggregated picture is needed to come to some firm conclusion.

Excess capacity created by large investment in the mid 1990s in thermal power generation through IPPs, cement, sugar, automobile, consumer electronics, has resulted in capacity utilization ranging from 60-70 percent. Thus no new investment is warranted in these big-ticket and highly capital-intensive industries. Monetary and credit policies aimed at stimulating aggregate demand through consumer financing for housing and construction, automobile sector, consumer durables should lead to higher use of existing capacity. In the economic terms, this improved efficiency in resource use in these sectors should be able to generate higher growth in these industries without any new investment. Technically speaking, the sectoral ICORs will be lower than what they are today.

While in other sub sectors such as fertilizers, steel, chemicals, paper and paperboard, the industries are operating at almost full capacity. These industries can benefit from new investment through substituting of imports by domestic production. New investment in these industries will push the growth rates higher.

In the largest manufacturing sub-sector of the country i.e. textiles, there has been both an expansion in capacity and balancing, modernization and replacement of existing capacity in the last three to four years. As the industry scratches over from old technology to adopt the state of art technology, it upgrades the quality of its products and improves competitiveness in the international markets. But this does not necessarily create new job opportunities and thus the widely held perception that investment in textile industry of almost US\$ 3 billion has not shown any visible impact on employment situation in the country.

Similarly, large flows of foreign direct investment in oil and gas sector since 2000 have also not resulted in concomitant employment expansion as the investment is highly capital and skill intensive.

**2.3.2.3 Mining & Quarrying**

The Quantum Index of Minerals, with a combined weight of 1.9 percent in IIP, recorded a 10.1 percent growth in the production of minerals during FY03 compared with 2.2 percent in FY02, other than china clay, the production of all minerals recorded a sharp increase during FY03. The increase in the production of natural gas, coal, gypsum, limestone, argo-marble and barytes, was particularly significant (see **Table 2.24**).

Since, most of these minerals are used as basic raw materials in a range of industries (such as chemicals, fertilizer, non-metallic minerals, ceramics, etc.), their production is highly correlated with the performance of end-user industries. For instance, the limestone and gypsum are used in the production of cement and in the glass industries, which showed a sharp increase in production during FY03. Higher production of natural gas and coal reflects growing fuel substitution in manufacturing industries (cement) and passenger vehicles (CNG).<sup>37</sup>

In case of natural gas and crude oil, however, the improvement was the result of concerted government efforts and policy attention. Over the last three years, the government has been

**Table 2.24: Growth in Production of Selected Minerals**

Minerals	FY02	FY03
Natural gas	5.5	7.3
Crude oil	10.0	1.1
Coal	1.9	4.9
Rock salt	-2.5	3.8
Gypsum	-26.6	57.3
Limestone	-14.8	28.2
China clay	13.9	-40.5
Chromites	-14.0	43.3
Aragonite marble	-19.4	125.0
Argi-clay	5.2	2.5
Barytes	-31.1	109.0

Source: Based on data from FBS

<sup>37</sup> During FY03, out of the 22 cement plants operating during FY03, 5 have completely switched over to coal, 11 plants are meeting their 50-60 percent fuel requirements from coal while only 6 plants are using furnace oil as fuel.

implementing a mining policy (National Mineral Policy) under which the import of machinery was allowed at zero rate and restrictions on repatriation of profits by foreign investors were removed. These measures have been successful in fetching foreign invest in this sector. After financial sector, oil and gas sector has benefited the most from foreign investment during FY03. As a result, drilling activities saw marked improvement during FY03.<sup>38</sup> However, the success ratio in terms of discoveries, favored natural gas during FY03.

### 2.3.3 Public Sector Industries

The overall performance of the six industrial corporations and 21 units (including two joint ventures) under the Production Wing of the Ministry of Industries & Production showed marked improved during FY03. The production value index of the public sector industries recorded 9.5 percent increase during FY03 compared to sharp decline of 4.3 percent in last year (see **Table 2.25**).

**Table 2.25: Performance of Public Sector Industries**

billion Rupees (at constant prices of 1987-88)

Corporations	Production value		Net sales		Pre tax profit/loss		Employment (000)	
	FY02	FY03	FY02	FY03	FY02	FY03	FY02	FY03
National Fertilizer Corporation	2.5	2.4	7.5	7.3	0.59	0.48	3.3	3.0
Pakistan Automobile Corporation	0.2	0.2	0.7	0.8	0.04	0.03	0.5	0.4
State Cement Corporation	0.5	0.3	1.2	0.8	-0.10	-0.21	1.2	1.2
State Engineering Corporation	1.1	1.2	1.9	2.0	-0.52	-0.18	4.0	3.9
<b>Sub-total</b>	<b>4.2</b>	<b>4.2</b>	<b>11.4</b>	<b>10.8</b>	<b>0.00</b>	<b>0.11</b>	<b>8.9</b>	<b>8.5</b>
Pakistan Steel	7.1	8.2	14.3	22.1	0.18	1.16	16.0	15.4
<b>Grand total</b>	<b>11.3</b>	<b>12.4</b>	<b>25.7</b>	<b>32.9</b>	<b>0.18</b>	<b>1.27</b>	<b>24.9</b>	<b>23.9</b>

Source: Expert Advisory Cell, Ministry of Industries and Production

However, this improvement was mainly due to phenomenal increase in the production value of Pakistan Automobile Corporation, State Engineering Corporation and Pakistan Steel.

In contrast, the production value of State Cement Corporation of Pakistan showed sharp 40.6 percent decline mainly due to closure of two cement plants (Thatta cement and Mustehkam cement). In terms of sales and profit, however, Pakistan Steel and National Fertilizer Corporation made the major contributions. Improvement in construction and engineering activities during FY03, coupled with increase in steel prices were major factors behind Pakistan Steel profitability. In addition, productivity also improved to 68 ton per person during FY03 from 60 ton per person last year. Robust fertilizer off take due to improvement in water availability and good crop prices, on the other hand, maintained the profitability of the NFC. However, despite an increase in cement sale during FY03, the net sales and profits of SCCP declined.

### 2.4 Services

The sector accounts for more than 50 percent of GDP and a little over a third of total employment in Pakistan. In fact, the services sector has been an important contributor to Pakistan's economic growth, particularly for the past five years when the commodity-producing sectors were depicting weak growth. This trend is visible in FY03 as well, as the real growth in the services sector accelerated from 4.1 percent in FY02 to 5.3 percent during FY03, faster than the aggregate real growth in the economy (see **Figure 2.28**).

Growth in services during FY03 seems to have been driven by many factors including a resurgence in manufacturing, better performance of agriculture, higher spending under the public sector

<sup>38</sup> During July-March FY03, 52 wells were drilled against 32 in last year.

development program (PSDP) combined with the restructuring and revitalization of certain public sector corporates.

In terms of the sectoral contribution, most of the sub-sectors recorded higher growth rates in FY03, except *finance and insurance*, which recorded a decline (see **Table 2.26**).

Two sectors that have witnessed particular improvement, contributing approximately half of the FY03 increase in value added in the services sector are (1) *wholesale & retail trade*; and (2) *transport, storage & communication* (see **Figure 2.29**).

The growth rate of the former was more than three times that in FY02 due to a resurgence in domestic economic activity, as well as

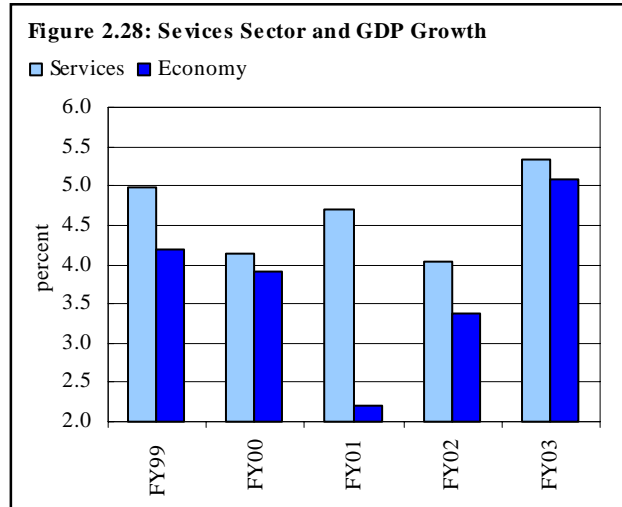
rising trade. Similarly, capital infusions, better governance and an improved economy, led to greater value addition in the transport & telecommunication sector.

Notwithstanding the substantial improvements in the services sector, it must be acknowledged that data problems in some significant portions of the services sector do raise concerns that the aggregate services sector growth may not accurately reflect current trends. In particular, *ownership of dwellings* and *community, social & personal services*, with an aggregate 32.2 percent share

in the services sector, have continued to depict unchanged growth for many years. However, developments during FY03 suggest that these numbers may now actually understate the true growth picture as: (1) construction activities appear to have picked up during the year, as reflected in rising demand for cement and other construction material, as well as increased government spending on infrastructure, etc. (2) similarly, the higher spending by the government would have been expected to lead to higher growth in *community, social & personal services*.

**2.4.1 Wholesale and Retail Trade**

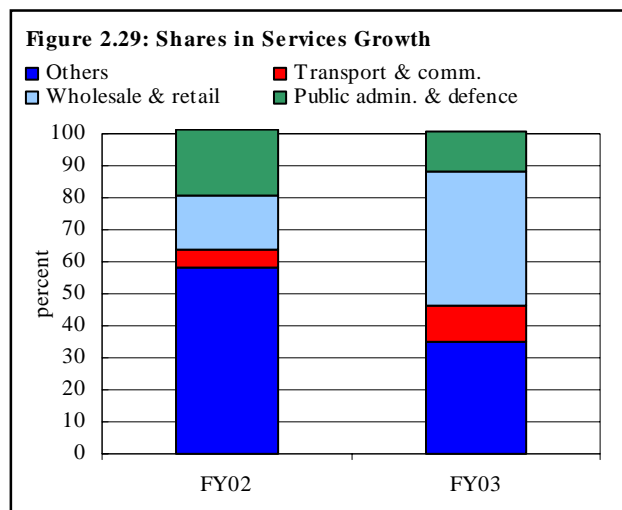
Value addition of the trade sector is based on the margins taken by the traders on the transaction of various commodities traded in the wholesale and retail market. During FY03, the gross value added in *wholesale & retail trade* increased by 7.3 percent, surpassing the 2.3 percent growth recorded in FY02, as a result of an upswing in trade activities. Consequently, the share of *wholesale*



**Table 2.26: Sectoral Growth and Shares of Services**  
at constant factor cost of 1980-81

Sectors/sub-sectors	Growth rates		Shares in services	
	FY02 <sup>R</sup>	FY03 <sup>P</sup>	FY02 <sup>R</sup>	FY03 <sup>P</sup>
Services sector	4.1	5.3	100	100
W & R trade	2.3	7.3	30.0	30.6
Transport, storage & comm.	1.1	3.0	19.8	19.4
Finance and insurance	8.1	-1.4	5.1	4.8
Ownership of dwellings	5.3	5.3	12.3	12.3
Public admin and defence	6.5	5.2	13.0	13.0
Other services	6.5	6.5	19.7	19.9

R = Revised, P = Provisional, W & R = wholesale & retail.  
Source: Federal Bureau of Statistics



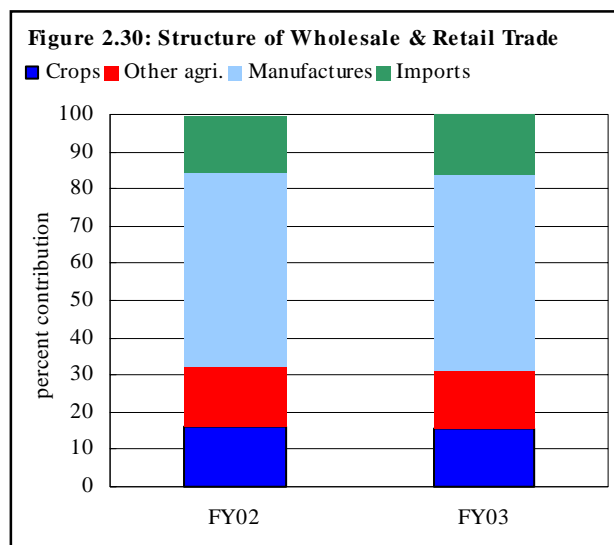
& retail trade in services and overall real GDP rose to 30.6 percent and 15.5 percent, respectively. The flow of traded goods during FY03 in the wholesale market is shown in **Figure 2.30**. Increased agricultural production together with the rebound witnessed in industrial activity as well as the increasing external trade contributed to the momentum of *wholesale & retail trade* (e.g., during FY03 the imports and exports grew by 7.6 percent and 38.3 percent respectively).

### 2.4.2 Transport, Storage and Communication

Under the system of National Income Accounts the estimated value-added in *transport, storage, and communication* is based mainly on the profit & loss accounts of agencies including Pakistan Railways, PIA & other airlines, Pakistan Posts & Courier Services, Pak Telecom and other services providers

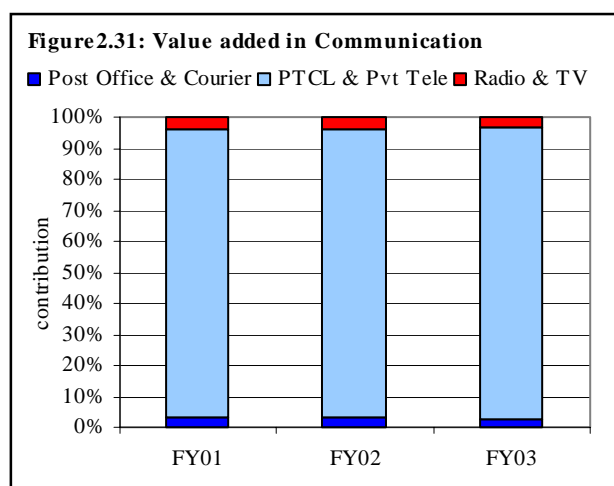
During FY03, the sector posted a growth of 3.0 percent compared with the 1.1 percent growth witnessed in FY02, as detailed in **Table 2.27**. Clearly, the FY03 improvement is dominated by the strong contribution by road transport and communication. It is to be noted that both the public and private sector real fixed investment in *transport, storage & communication* recorded substantial increases during FY03.

- The higher value addition visible in *road transport* (with a 70.7 percent weight in the sub-sector) provided much of the impetus to *transport, storage & communication* sector growth during the period under review. The improvement in road transport, in turn, reflected the increased demand for transportation in the backdrop of the better performance of the commodity producing sectors and rise in international trade.
- Pakistan Railways also performed well during FY03 as both the freight and passenger handling increased by 5.7 percent and 10.0 percent respectively, reflecting some success in the government's efforts to improve its efficiency and profitability.
- The growth in the *communications* sub-sector was largely driven by PTCL and Private Telephone Companies during FY03, although the rise of telecommunication was somewhat dampened by the decline in the value addition by the PTV, PBC,



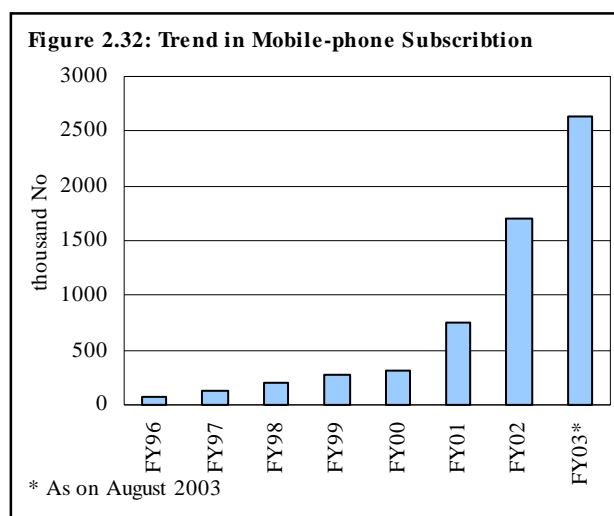
**Table 2.27: Weighted Contribution in Transport, Storage & Communication Sector Growth (percent)**

Sectors	FY02	FY03
Pakistan Railways	0.00	0.02
Port & shipping	0.03	0.08
Airlines	0.05	0.14
Pipeline transport	0.02	0.04
Communication	0.20	0.53
Road transport	0.78	2.16
Storage	0.03	0.08
<b>Total</b>	<b>1.11</b>	<b>3.05</b>



Shalimar Recording and Broadcasting Company and Pakistan Posts (see **Figure 2.31**).

- The strong consumer demand and growing popularity of cell phone and the internet increased the subscriber base of telecommunications firms as evident from the **Figure 2.32**. The growth in mobile phone subscribers in last one year was quite pronounced i.e., 55.2 percent. The number of active lines in service of Pakistan Telecommunication Company Limited (PTCL), increased by 9.0 percent, from 3.6 million to 3.9 million, during the year, helping it realize a 16.5 percent increase in FY03 net operating profit.
- Also, provisional estimates suggest that PIA continued to improve its performance as evident from the higher operating profit of Rs 55.7 billion in 2002 compared with Rs 3.6 billion during the previous year. This is also visible from the passenger load factor (68.3 percent in FY03 as against 65.6 percent in the preceding period). The improvement in the airline's performance was mainly because of the cost cutting measures including elimination of non-productive flights, better human management, and restructuring of the airline's operations.
- Meanwhile, the port and shipping services, also posted healthy growth. This was partly attributed to the improved performance of Pakistan National Shipping Corporation (PNSC) and subsequent increased volume of transactions for passage and freight services. Efficient utilization of vessels and other measures by PNSC seems to have contributed to the growth. During FY03, PNSC improved its operating profit and other income that increased by 16.1 percent and 5.7 percent respectively.<sup>39</sup> Similarly, the number of containers handled, by Karachi Port Trust has also increased by 5.2 percent during FY03 (see **Table 2.28**). The provisional estimate indicated that the operating surplus of the KPT increased by 19.8 percent over the preceding year. The higher water transport activities reflecting the demand for freight transport with the increasing imports and exports.



**Table 2.28: Cargo Handling at Karachi Port**  
thousands MT

Description	FY02	FY03
<b>Imports</b>		
Dry general cargo	5,875	6,055
Dry bulk cargo	1,841	2,178
Liquid bulk cargo	12,614	11,375
<i>Sub-total</i>	20,330	19,609
<b>Exports</b>		
Dry general cargo	2,709	3,101
Dry bulk cargo	1,306	1,168
Liquid bulk cargo	2,346	1,975
<i>Sub-total</i>	6,362	6,244
<b>Total Imports &amp; Exports</b>		
Dry general cargo	8,584	9,157
Dry bulk cargo	3,148	3,346
Liquid bulk cargo	14,961	13,350
<i>Sub-total</i>	26,692	25,852
<b>Container Handling (000 No.)</b>		
No. of import TEU* & moves (Full)	564	607
No. of export TEU & moves (Full)	453	463
<i>Sub-total</i>	1,017	1,071

\* TEU= Twenty feet equivalent unit

<sup>39</sup> July-March 2003.

### 2.4.3 Finance and Insurance

During FY03, the value added in *finance* and *insurance* services declined by 1.4 percent as against the growth of 8.1 percent last year. Scheduled banks and SBP account for 72.6 percent of the sector, and it is the deceleration in the operating surplus of SBP and scheduled banks during FY03 that seems to have pulled down the aggregate sectoral growth. However, this was partially offset by the buoyant growth of DFIs, insurance and other financial institutions.

### 2.5 Savings

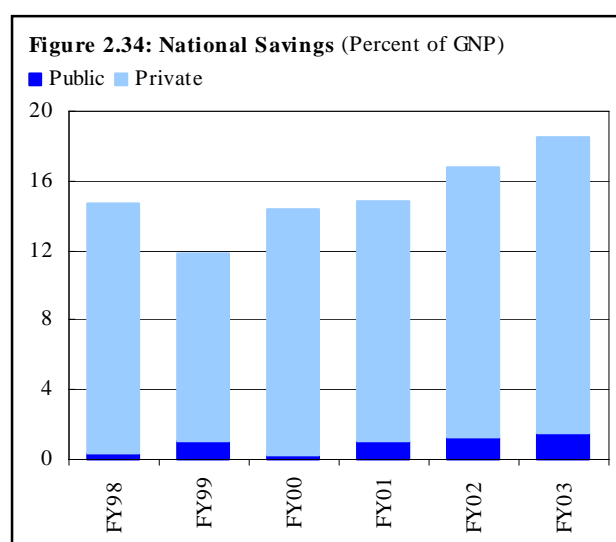
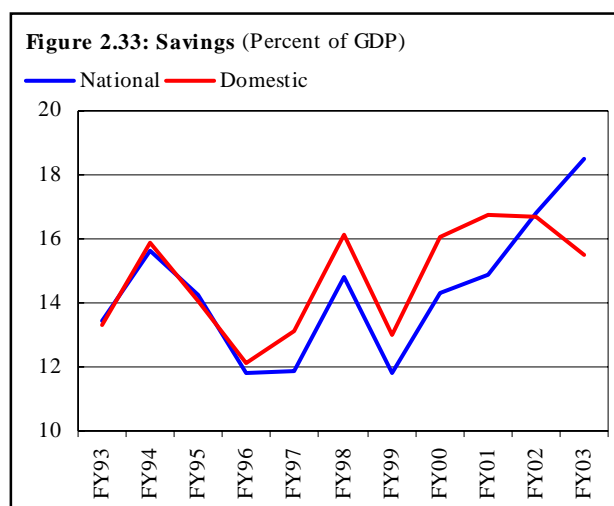
National savings rose sharply to reach a respectable 18.5 percent of GNP in FY03 as compared to 16.8 percent of GDP recorded in FY02 (see **Figure 2.33**). This improvement is mainly on the back of a substantial rise in *net factor income from abroad* due to a sharp acceleration in remittance flows. In contrast, growth in domestic savings decelerated<sup>40</sup> and declined as a percentage of GDP from 16.9 percent in FY02 to 16.2 percent in FY03 (see **Table 2.29**).

A breakup of national savings reveals that both public and private sector savings grew faster than the nominal GNP.

(1) Public savings rose marginally from 1.3 percent of GNP in FY02 to 1.5 percent in FY03 mainly on account of better financial management of the government (see **Figure 2.34**).

In addition, higher official transfers and lower debt servicing during FY03 also provided fiscal space to the government.

(2) The increase in private sector savings was even more pronounced, as it rose from 15.5 percent of GNP in FY02 to 17.0 percent in FY03. Unfortunately, a breakup of the savings by *corporate* and *household* for FY03 is not available. However, it is likely that both contributed strongly to private savings. The expectations of a growth in *corporate* savings are based on the data for listed corporate, that shows rising profits and lower dividend payoff during FY03. Similarly, an increase in private savings is quite likely in view of the strong growth in remittances.



<sup>40</sup> In absolute terms domestic savings, however, rose by 6.4 percent during FY03.



Despite the above positive developments, the rising savings-investment gap is worrying (see **Figure 2.35**). The continued weakness in investment relative to the rise in national savings (i.e., in the absence of funding constraints) is a serious negative development, and despite policy attention has proved elusive. Factors that are of particular concern to investment include law & order, governance, flexible labor market, multiple taxes/officials, etc.

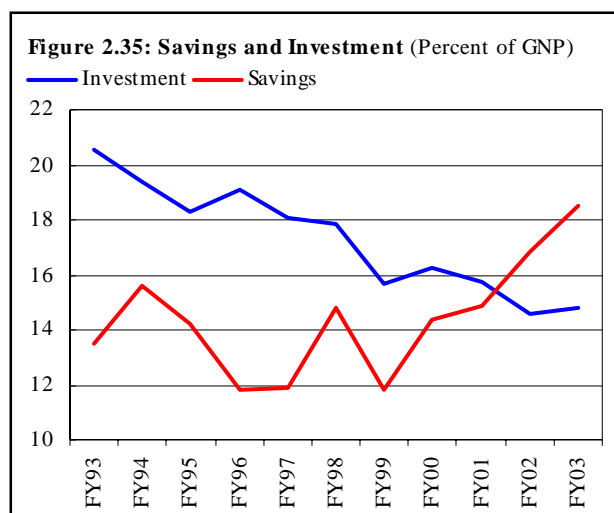
## 2.6 Investment

Total investment grew by 16.2 percent during FY03, which is the strongest rise for the last 6 years, and is in sharp contrast to the anemic 0.4 percent growth in FY02. As a result of this, the ratio of *total investments as a share of GNP* also marginally reversed its long-term downtrend (see **Table 2.29**).

Fixed investments also rose sharply by 10.5 percent during FY03. However, the ratio of *fixed investment to GNP* fell from 13.0 percent in FY02 to 12.5 percent in FY03, since a surge in remittances inflows led GNP growth to substantially outpace the rise in fixed investments.<sup>41</sup>

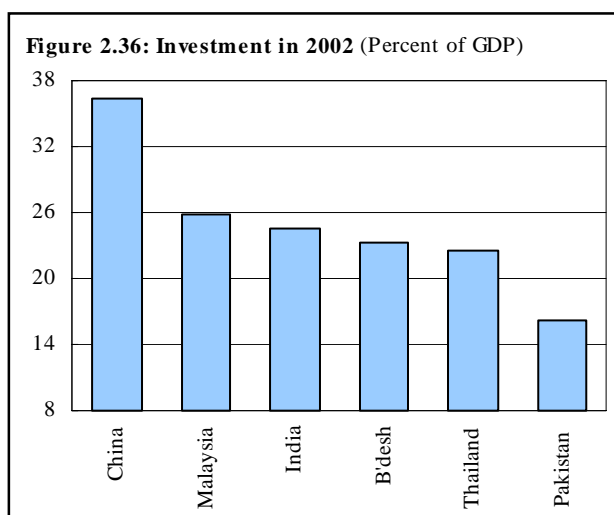
Interestingly, most of the rise in fixed investment during FY03 was contributed by the private sector, which saw its share continue a steady rise. As a result, capital formation by the private sector grew by a healthy 14.4 percent during FY03 compared with the 6.2 percent rise witnessed in the preceding year.

Public investment also witnessed a 3.8 percent rise during FY03, in sharp contrast to the 9.0 percent decline in FY02 (see **Table 2.30**). While a welcome change from the steady decline in public sector investment, the FY03 outcome is nonetheless disappointing given that even the budgeted FY03 investment in infrastructure could potentially have doubled the growth rate; the non-utilization of budgeted expenditures despite the absence of fiscal constraints is not a positive development.



**Table 2.30: Investment**

	FY00	FY01	FY02	FY03
<b>As percent of GDP</b>				
Total investment	16.0	15.5	14.7	15.5
Changes in stocks	1.6	1.6	1.6	2.4
Fixed investment	14.4	13.9	13.1	13.1
Private	8.4	8.4	8.4	8.6
Public	6.0	5.5	4.8	4.5
<b>As percent of total investment</b>				
Private	58.5	60.1	63.8	66.0
Public	41.5	39.9	36.2	34.0
<b>Growth rates</b>				
Total investment	10.2	5.5	0.4	16.2
Changes in stocks	7.7	8.7	3.2	63.1
Fixed investment	10.5	5.1	0.1	10.5
Private	14.3	8.0	6.2	14.4
Public	5.5	1.1	-9.0	3.8



<sup>41</sup> In fact, fixed investment, as a percentage of *GDP* remained unchanged at FY02 level of 13.1 in FY03.

**Table 2.29: Investment and Savings (at constant prices)**

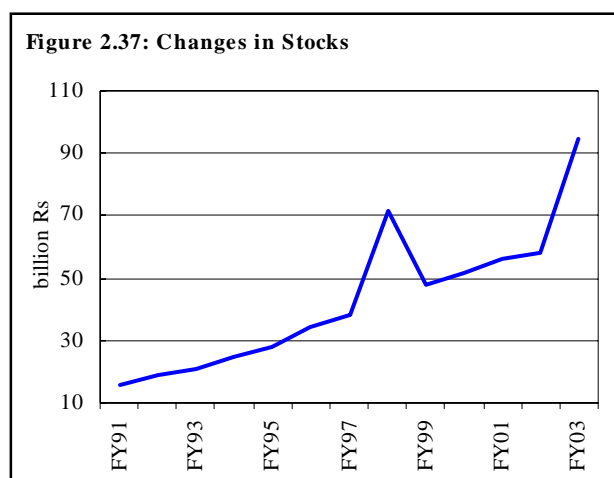
Description	Growth rates					
	FY98	FY99	FY00	FY01	FY02 R	FY03 P
1) Gross total investment	9.0	-3.6	10.2	5.5	0.4	16.2
2) Gross fixed investment	1.5	1.6	10.5	5.1	0.1	10.5
Public sector	-14.8	25.8	5.5	1.1	-9.0	3.8
Private sector	13.3	-11.4	14.3	8.0	6.2	14.4
3) Net external resource inflows	-44.3	37.0	-47.9	-49.3	-374.2	91.1
4) National savings	36.8	-12.2	29.4	12.8	22.8	26.2
Public savings	-59.5	192.3	-72.6	324.4	45.1	29.8
General government	77.2	-96.5	2402.7	-21.9	-45.6	NA
Others	7.2	-40.7	44.9	40.5	3.8	NA
Private savings	45.6	-17.4	38.7	7.2	21.2	25.9
Household	45.6	-17.4	38.7	7.2	21.2	NA
Corporate	45.7	-17.4	38.7	7.2	21.2	NA
5) Net factor income from abroad	-22.8	-3.5	53.1	17.1	-106.9	2848.1
6) Domestic savings	35.5	-11.4	31.6	13.3	8.4	6.4
<b>As percent of GNP</b>						
1) Gross total investment	17.9	15.7	16.2	15.8	14.6	14.8
2) Gross fixed investment	15.2	14.1	14.6	14.1	13.0	12.5
Public sector	5.3	6.1	6.0	5.6	4.7	4.3
Private sector	9.9	7.9	8.5	8.5	8.3	8.3
3) Net external resource inflows	3.1	3.9	1.9	0.9	-2.2	-3.7
4) National savings	14.7	11.8	14.3	14.9	16.8	18.5
Public savings	0.4	1.0	0.3	1.0	1.3	1.5
General government	-1.5	0.0	-1.1	-0.8	-0.4	0.0
Others	1.9	1.0	1.4	1.8	1.7	0.0
Private savings	14.4	10.8	14.1	13.9	15.5	17.0
Household	12.7	9.5	12.4	12.3	13.7	0.0
Corporate	1.7	1.3	1.7	1.6	1.8	0.0
5) Net factor income from abroad	-1.4	-1.2	-1.7	-1.9	0.1	3.0
<b>As percent of GDP</b>						
1) Domestic savings	16.0	12.9	15.8	16.5	16.9	16.2
<b>As percent of gross total investment</b>						
1) Net external resource inflows	17.5	24.9	11.7	5.6	-15.4	-25.3
2) National savings	82.5	75.1	88.3	94.4	115.4	125.3

R: Revised, P: Provisional, NA: Not available.

Source: Federal Bureau of Statistics &amp; Planning and Development Division, GOP.

The above point is underlined by a cross-country comparison, which shows that the *investment to GNP* ratio in Pakistan is fairly low as compared with other developing countries. In fact, almost all selected developing countries in the sample have an *investment to GDP* ratio of over 20 percent in 2002 (see **Figure 2.36**).

Finally, another interesting development during FY03 is the unusual rise in *changes in stocks* (see **Figure 2.37**). This typically records works in-progress, and for the last 5 years has stagnated at about 1.6 percent of GNP. However, in FY03, this figure jumped



to 2.4 percent of GDP, suggesting that the increased investment interest in FY03 will probably also spillover in FY04, boosting economic activity.

### 2.6.1 Real Fixed Investment

Contrary to a decline of 3.5 percent in FY02, real fixed investment rose sharply by 10.1 percent during FY03, with the major impetus coming from the private sector (see **Table 2.31**). The substantial growth in real investment reversed the declining trend seen over the years, albeit only marginally; the *real investment to GDP* ratio, which had gradually fallen to 13.2 percent by FY02, inched up to 13.7 percent in FY03.

A 16.0 percent growth in real private fixed investment during FY03 is indeed impressive, marking the first double-digit growth for any year over the past decade. This may be an indicator of increasing investor confidence, reflecting the improvement in the country's macroeconomic fundamentals. A sectoral breakup of the investment reveals that large-scale manufacturing; electricity & gas, transport

**Table 2.31: Growth of Real Fixed Investment**  
at constant prices of 1980-81

Sectors	Total fixed investment		Public fixed investment		Private fixed investment	
	FY02 <sup>R</sup>	FY03 <sup>P</sup>	FY02 <sup>R</sup>	FY03 <sup>P</sup>	FY02 <sup>R</sup>	FY03 <sup>P</sup>
Agriculture	8.2	2.7	474.5	-64.7	-2.5	11.8
Mining and quarrying	8.1	2.7	18.8	-0.8	2.8	4.7
Manufacturing	11.8	19.6	-90.3	25.3	24.4	19.6
Large-scale	14.1	25.9	-90.3	25.3	35.6	25.9
Small-scale	7.4	7.4	0.0	0.0	7.4	7.4
Construction	-19.0	11.4	50.3	-18.1	-29.3	20.7
Electricity and gas distribution	-22.6	-7.4	-7.2	-22.9	-62.1	89.4
Transport, storage & communication	-24.4	34.9	-27.8	38.4	-19.1	30.0
Wholesale and retail trade	18.2	14.9	0.0	0.0	18.2	14.9
Finance & insurance	77.5	35.6	18.6	4.0	132.9	50.8
Services	2.5	5.0	-18.6	0.0	5.6	5.6
Ownerships of dwellings	1.7	2.5	0.0	0.0	1.7	2.5
General government	2.4	6.7	2.4	6.7	0.0	0.0
<b>Total</b>	-3.5	10.1	-8.7	1.3	0.4	16.0

R = Revised, P = Provisional.

Source: Federal Bureau of Statistics

& communication, construction and finance & insurance were important contributors to the rise. Real fixed investment in public sector rose only by 1.3 percent during FY03 as against a sharp decline of 8.7 percent last year. Public sector investment activities were focused on large-scale manufacturing, transport & communication and general government but were largely offset by a sharp investment decline, in agriculture, construction and electricity & gas distribution.

In aggregate, transport & communication, large-scale manufacturing, construction, wholesale & retail trade showed positive contribution in the growth of real fixed investment. Only electricity & gas distribution registered a fall, mainly due to the passive role of the public sector in FY03. The lower investment in electricity and gas distribution is probably reflects the increasing private sector investment in self-generation units.

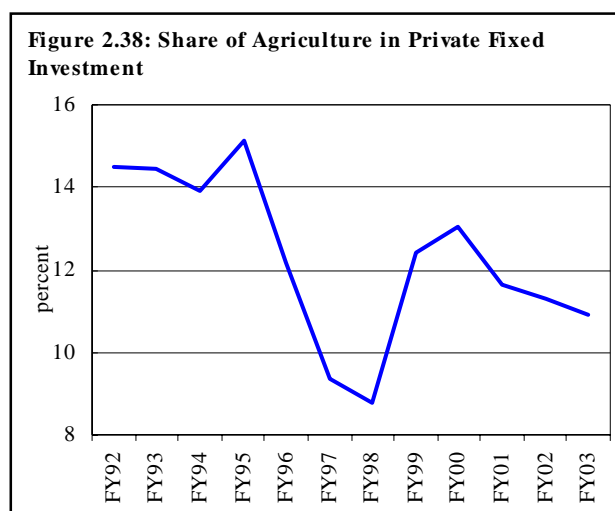
#### **Agriculture**

Real fixed investment in agriculture sector grew by 2.7 percent during FY03 as compared with 8.2 percent in FY02. In agriculture, real fixed investment by the public sector shrank by 64.7 percent during FY03, which was partially offset by the reasonably high private sector expansion in this sector. Real private fixed investment in agriculture rose by 11.8 percent in FY03 as against a fall of 2.5 percent during FY02. It is interesting to note that the disbursement of agricultural loans for development purposes rose by 16.8 percent during FY03. This probably resulted from an active role

of the commercial banks as a 131.5 percent increase in their disbursement of developmental loans more than offset the decline of 13.4 percent in disbursement by the specialized banks.<sup>42</sup>

The higher private investment in agriculture is a response to: (1) unexpectedly good growth of agriculture during FY03; (2) better market prices of most of the major crops, and (3) ample liquidity with the banks which helped improve farmers' access to credit (for details see **Section 2.2**).

Although 11.8 percent increase in real private fixed investment in agriculture during FY03, as against five years average of 4.5 percent, is a positive development (see **Figure 2.38**), even this marks a continuation of the decline share of agriculture in total private investment. This is troubling, given that there is a need for substantial investment in agriculture sector, (particularly to enhance productivity), to make this sector competitive.



### **Manufacturing**

The manufacturing sector accounted for the highest share (17.6 percent) in real fixed investment. On the back of strong growth in large-scale manufacturing due to higher domestic and external demand, real fixed investment in this sub-sector also rose by 19.6 percent during FY03. The growth in the manufacturing sector investment accounts for more than one-third of the rise in total real investment. Interestingly, both public and private sectors responded aggressively to take advantage of the FY03 economic revival.

Private sector real fixed investment in large-scale manufacturing (LSM) grew by a reasonably strong 25.9 percent during FY03 (however, this is lower than the increase of 35.6 percent recorded in FY02). Higher domestic demand was the major reason for elevated activities in automobile and engineering sub-sectors while improved external demand attracted investment in chemicals and textiles. The higher investment in textile was spurred by low interest rates and the need to prepare for the abolition of textile quota post 2005. Not surprisingly, FY03 saw textile machinery imports rise to US\$ 531.9 million up 30.7 percent over FY02.

Interestingly, public sector investment in large-scale manufacturing rose by 25.3 percent during FY03 in sharp contrast to a 90.3 percent decline during FY02. This seems to reflect government commitment to reviving some of the key industries running under public sector particularly in order to make them viable for privatization and/or reduce pressure of the budget. An improved performance of public sector industries showed in their higher pre-tax profit that rose to Rs 791 million during FY03, up 274 percent over the corresponding FY02 figures.

<sup>42</sup> ZTBL and PPCB.

### **Transport & Communication**

A rebound in real investment by both, the public and private sectors was visible in the transport & communication sector. However, while the 34.9 percent jump in real fixed investment during FY03 is welcome it is, in part, bolstered by the low-base effect due to the 24.4 percent decline witnessed in FY02. Nonetheless the FY03 data reveals a long overdue resurgence of investment in order to modernize postal services, and expand the telecommunications network (see **Table 2.32**).

**Table 2.32: Growth of Real Public Investment in Transport & Communication**

Percent	FY00	FY01	FY02	FY03
Railways	-87.4	425.7	104.9	-0.5
Post office & T&T	41.1	-5.7	-49.6	49.9
Others	33.2	-23.6	-23.5	43.5
<b>Total</b>	<b>24.6</b>	<b>-11.9</b>	<b>-27.8</b>	<b>38.4</b>

Source: Economic survey 2002-03

The recent increase in mobile telecommunication capacity investment is still below requirements; this is evident from the fact that U-Fone sold 100,000 mobile phone connections within a few days and was unable to fulfill the existing demand due to inadequate investment. There is an ample scope for upgradation and expansion in the existing networks.

The Renovation and construction of new roads under the local governments is also contributed to the increased public sector investment in transportation and communication sector during FY03. Although, the total length of roads rose by only 0.1 percent, it is interesting to note that the length of 'high type' roads (requiring greater investment) increased by 1.5 percent, which largely offset a 1.9 percent decline in 'low type' roads. Ongoing works on some major highways, completion of a new terminal complex at Lahore, up-gradation of some small airports, Gwadar port, etc. probably also boosted the public sector investment in the sector.

The private sector has also invested heavily in the transport sector, as evident in the rise in domestic production trucks and buses (up 71 percent and 22 percent YOY respectively) as well as higher imports of these vehicles during FY03. Higher trade activities during FY03 (the country's imports and exports rose by 18.2 percent and 22.2 percent respectively) as well as the reconstruction activities in Afghanistan and growing volume of Afghan Transit Trade (ATT) probably account for the rising demand for transport vehicles. Similarly, the addition of new buses on inter-city and intra-city routes was a response of higher demand on one hand and availability of cheaper credit/imports on the other hand. As a result, a 30.0 percent increase in real fixed investment by the private sector was recorded in transport & communication during FY03.

### **Construction**

A confluence of factors including improved availability of financing at exceptionally low rates, a fall in yields on alternative investments, and higher forex inflows help spark renewed private sector interest in the construction sector. As a result, despite an 18.1 percent fall in public sector real investment in construction, a handsome increase of 20.7 percent in real private fixed investment led to an overall growth of 11.4 percent in total real fixed investment in construction during FY03.

The revival was helped by policy initiatives of the government and the SBP during FY03 in order to promote the housing finance in the country. On one hand, the government announced tax incentives on mortgage financing and reduced taxes on key inputs (e.g. cement), while on the other; SBP implemented policies to develop the mortgage market.<sup>43</sup> In addition, Pakistan's premier housing financing institution HBFC has been revamped and has re-started its lending activities after a temporary hiatus from July 2000 to December 2001.

<sup>43</sup> SBP enhanced the maximum limit for housing finance by the banks and allowed them to match their assets structure by issuing long-term bonds (see Special Sections on Housing Finance for details)

With growing activities in manufacturing and agriculture sectors, construction sector is also complemented with higher real fixed investments in building of new factories, extension of units, construction of silos, etc.

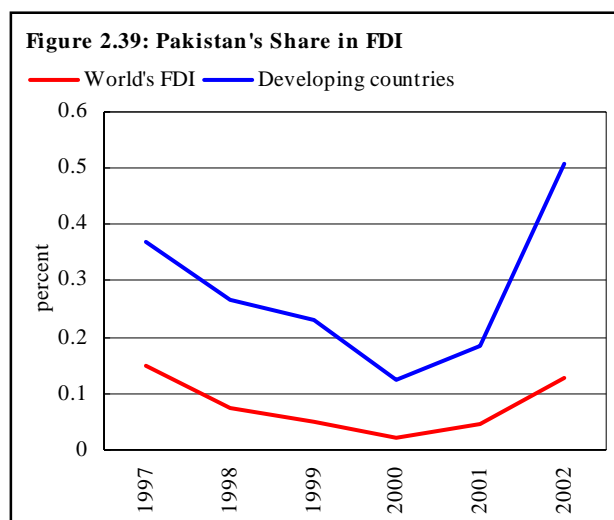
### Mining & quarrying

Real fixed investment in mining & quarrying decelerated for yet another year during FY03, led by weakening public sector investment; a 4.7 percent increase in the private sector investment being partially offset by a 0.8 percent in the public sector real fixed investment.

A key development attracting investment in the sector is the rising domestic demand for coal as cement producing units increasingly shift from furnace oil to coal, which led to a 4 percent increase in coal extraction during FY03. Unfortunately, since much of the country mining reserves exist in remote areas, therefore there is a need to improve infrastructure in order to attract higher investment in this sector.

### 2.6.2 Foreign Direct Investment

Globally, foreign direct investment (FDI) fell by 21 percent during 2002; this was the second time that these flows decline, reaching the lowest level for the last five years. The key reasons for this slowdown include: (1) relatively poor economic performance in major economies, (2) non-satisfactory performance of stock markets, and (3) drastic political changes in the world. Interestingly, according to World Investment Report 2003, Pakistan was amongst the few countries that succeeded in attracting increased FDI in both 2001 and 2002. The significant improvements in macroeconomic fundamentals and better credit rating are probably some major reasons for this divergent trend. As a result, Pakistan's share in the world and developing countries FDI rose from 0.05 and 0.18 in 2001 to 0.13 and 0.51 in 2002 respectively (see **Figure 2.39**).



**Table 2.33: Rate of Return on FDI in Selected Asian Countries**  
Percent

	1999	2000	2001
World average	7.1	6.8	5.5
Developing economies average	4.6	4.3	4.2
<b>Pakistan</b>	<b>3.4</b>	<b>6.1</b>	<b>7.0</b>
China	5.6	6.2	5.8
Indonesia	5.5	5.7	5.4
Korea	3.0	3.1	3.3
Malaysia	11.5	14.1	11.2
Philippines	3.6	9.5	8.8

Source: UNCTAD, World Investment Report, 2003.

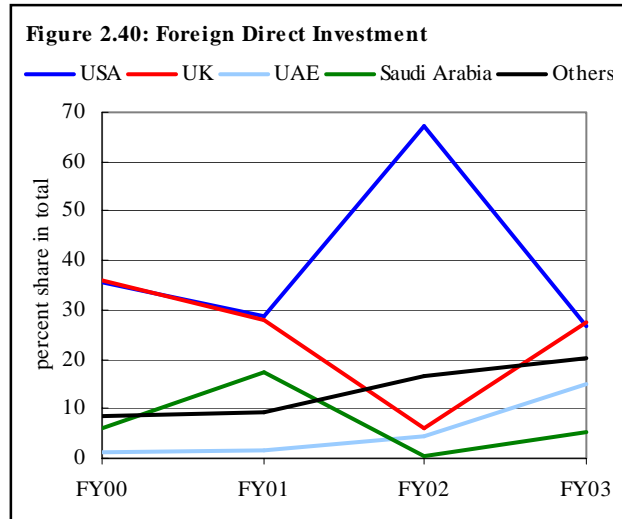
This is partly attributable to the comparatively better rate of return. Out of the selected Asian countries, Pakistan recorded a substantial increase in the rate of return on FDI during 2002 (see **Table 2.33**). The rate of return on FDI in Pakistan was lower than the averages of World and developing economies in 1999, but since FDI returns in Pakistan rose above the average for developing economies in 2000 and by 2001, it had also increased above the global average. This stemmed from both, a gradual increase in Pakistan's FDI rate of return and a continuous decline in the world average.



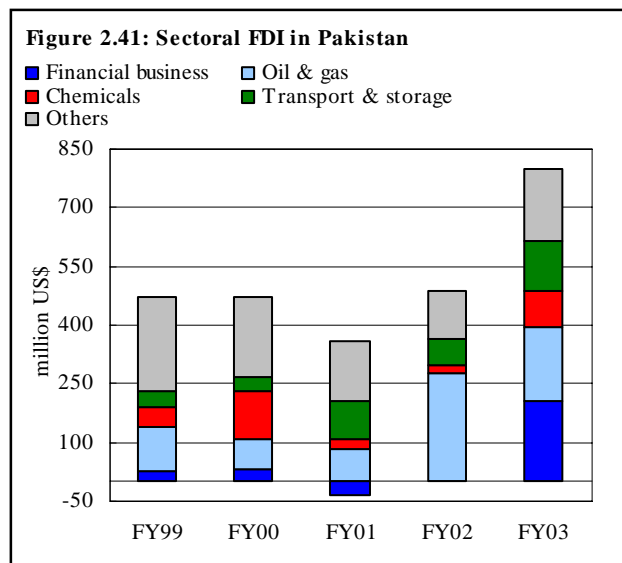
However, in absolute terms, Pakistan 2002 FDI stands at US\$ 684 million, a mere 0.72 percent of the total FDI to Asia-Pacific region during the period.<sup>44</sup>

A detailed analysis of FDI in Pakistan reveals that contrary to previous years, the FY03 FDI is not heavily concentrated in a single area. Though financial business fetched relatively larger amount of US\$ 207.5 million during FY03 due to privatization of UBL, FDI observed a respectable growth of 21.8 percent even excluding investment in this area.

Country wise data shows (see **Figure 2.40**) that USA and UK continued to be leading sources of FDI in Pakistan, UK FDI took the top spot with a 27.5 percent share in total FDI, followed by USA (26.5 percent), UAE (15.0 percent) and Saudi Arabia (5.5 percent). During FY03, FDI from UAE was heavily concentrated in financial business (74.4 percent) and Saudi Arabian FDI was mainly invested in transport & storage facilities (95.5 percent).



A sectoral break-up of FDI reveals that financial business fetched the highest increase (+US\$ 204 million). The FDI in oil & gas exploration witnessed a decline in FY03 relative to FY02, but still remained substantial, at US\$ 188.2 million. By contrast, the textile sector is gradually increasing its share in total FDI, rising from US\$ 4.4 million in FY00 to US\$ 26.1 million by FY03. The increased investment in the sector appears a result of BMR in view of the forthcoming quota-free trade under WTO. The transport sector recently opened new avenues for FDI as intra-city bus routes captured attraction of Middle Eastern investors. As mentioned earlier, Saudi investment is heavily concentrated in this sector, and this is expected to increase during FY04 (see **Table 2.34** and **Figure 2.41**).



<sup>44</sup> It may be noted that more than half of the total FDI to Asia-Pacific was fetched by China. Excluding china, this ratio would be 1.63 percent.

**Table 2.34: Foreign Direct Investment (Net) during FY03**

million US Dollars

	USA	UK	UAE	Saudi Arabia	Japan	Other	Total
Food Group	2.0	0.4	2.0	0.0	0.0	3.5	7.9
Textiles	12.9	2.1	7.8	0.0	0.1	3.2	26.1
Chemicals	4.2	75.5	0.3	0.3	0.6	5.3	86.2
Petroleum refining & petro chemicals	3.0	0.0	0.0	0.0	0.0	0.0	3.0
Oil-gas & mining & quarrying	113.6	39.6	0.0	0.0	0.0	35.0	188.2
Pharmaceutical group	3.6	0.4	0.2	0.0	0.0	2.1	6.2
Machinery	0.0	0.4	0.0	0.0	0.0	10.5	10.9
Electronics	3.5	0.1	1.1	0.0	0.0	2.0	6.7
Transport & storage facilities	0.8	6.3	8.0	41.6	0.4	32.8	89.8
Communications	19.8	1.3	0.6	0.0	0.0	2.6	24.3
Construction	9.3	1.4	1.8	0.8	0.5	3.8	17.6
Trade	14.2	2.6	5.1	0.3	7.3	9.6	39.1
Power	0.1	7.3	0.0	0.0	1.6	23.8	32.8
Financial business	13.0	76.2	89.0	0.0	1.7	27.7	207.6
Others	11.6	5.8	4.0	0.5	1.8	27.9	51.8
<b>Total</b>	<b>211.5</b>	<b>219.5</b>	<b>119.7</b>	<b>43.6</b>	<b>14.1</b>	<b>189.8</b>	<b>798.0</b>

Note: Totals may not tally due to separate rounding off.

### Special Section 2.1: Understanding WTO and Agreement on Agriculture

*The SBP hopes to initiate a broad public debate on the implications of various WTO Agreements for Pakistan's economy. In this spirit, this inaugural section sets out a broad overview of one segment that significantly impacts Pakistan's economy, the Agreement on Agriculture. It is envisaged that succeeding SBP reports will then focus on specific WTO-related concerns with respect to Pakistan's agricultural economy, as well as expanding coverage to other segment.*

#### Backdrop

The efforts for restoring international economic growth and lasting peace, after World War II, led 23 nations to sign the General Agreement on Tariff and Trade (the GATT). The objectives of the GATT were to establish an orderly and transparent framework leading towards gradual reduction in tariffs and thereby expanding the international trade. The GATT continued to be governed by provisional and interim measures and remained an agreement without a formal organization to enforce it. The signatories to the GATT were known formally as contracting parties (rather than members).

The second breakthrough was seen in 1995 when, as a final outcome of the Uruguay Round, the GATT was transformed into the World Trade Organization (WTO), a full-fledged international organization — with stronger and broader authority to promote openness, fairness and predictability in international trade for the benefit of the humanity. With 146 countries on members' list,<sup>45</sup> Pakistan joined the Organization on January 1, 1995.

The transitory phase from the GATT to the WTO, which spread over nearly half of the century, was the era when important measures were taken to harmonize the international trade by progressively reducing tariffs and quota barriers. Most significant developments were seen in Uruguay Round when a consensus was developed towards broadening the base of GATT by bringing agricultural subsidies, trade in services and intellectual property rights into its ambit.

<sup>45</sup> The number by April 2003, will further increase as another 26 or so countries are in the process of negotiating their accession to the WTO.

The final agreement reached in Uruguay Round in 1994 was to establish the WTO with all other agreements providing basic framework for the Organization. In fact, the agreements fall into a simple structure with six main parts: an umbrella agreement (the Agreement Establishing the WTO); agreements for each of the three broad areas of trade that the WTO covers (goods, services and intellectual property); dispute settlement; and reviews of governments' trade policies.

The nomenclatures of the different agreements are:

- i) General Agreement on Trade and Tariff (GATT); *requires tariffs to be closer to zero and it covers all the tradable goods.*
- ii) General Agreement on trade in Services (GATS); *for the first time it defines rules for international trade in services.*
- iii) Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS); *is an attempt to narrow the gaps in the way these rights are protected around the world and to bring them under common international rules.*

The other agreements supporting to the above three areas are;

- iv) Agreement on Agriculture (AOA); *ensure fairer markets to farmers.*
- v) Agreement on Sanitary and Phytosanitary Measures; *restricts the application of Sanitary and Phytosanitary measures to the extent necessary to protect human, animal or plant life or health without discriminating between WTO members.*
- vi) Agreement on Textile and Clothing (ATC); *have an objective to bring textiles back into mainstream of international trade.*
- vii) Agreement on Technical Barriers to Trade (ATBT); *seeks to ensure that technical negotiations and standards as well as testing and certification procedures do not create unnecessary obstacles to trade.*
- viii) Agreement on Anti-Dumping Subsidies and Safeguards; *introduce rules to act against dumping where there is genuine injury to the competing domestic industry. Agreement on subsidies takes care of two things; one disciplines the use of subsidies and secondly regulates the actions countries can take to counter the effect of subsidies.*
- ix) Non-Tariff Agreements (NTA); *it deals with various technical, bureaucratic or legal issues that could involve hindrances to trade.*
- x) Agreement on Trade-Related Aspects of Investment Measures (TRIMS); *it states that no member shall apply any measure that discriminates against foreign investors or foreign products.*

### **Working of WTO**

With its head office at Geneva, Switzerland, the WTO is a *rules-based*, member-driven organization — all decisions are made by the member governments, and the rules are the outcome of negotiations among members. The topmost decision-making body of the WTO is the *Ministerial Conference*, which has to meet at least every two years. It brings together all members of the WTO, all of which are countries or customs unions. The *Ministerial Conference* can take decisions on all matters under any of the multilateral trade agreements. It is represented by ambassadors or ministers of the member countries, and who in turn, are responsible for advancing their government's agenda.

The decisions are made on consensus with no veto power enjoyed by any member. Since its establishment, five ministerial conferences have so far been held in different countries with the latest in at Cancun, Mexico from September 10-14, 2003. Further, to act on behalf of the ministerial conference, which only meets about every two years, and to deal with the day-to-day work, there exists a *General Council* with its office at Geneva. It meets to carry out the functions of the WTO. It has representatives (usually ambassadors or equivalent) from all member governments.

The WTO brings stability and predictability to international trade because its rules are legally binding. Any breaking of the country's commitment with WTO can be brought into the dispute settlement system. Once the dispute is notified to the WTO, the immediate priority is given to settle the dispute through consultation. If not, then members assembled in the WTO Dispute Settlement Body, which refer the dispute to a panel of experts. A panel's recommendations are automatically adopted. At first instance panel report may be appealed, but the decision by the second instance Appellate Body is final. During the period of 1995-99, 77 disputes were resolved of which 41 were solved without going to adjudication

### Agreement on Agriculture

At the beginning of the GATT regime, agriculture sector was given exemptions from some of the core rules (such as quantitative import restrictions and export subsidies) being applied to the other sectors of the economy on the premise that;

- Agriculture provides food security.
- With the expansion of the manufacturing and services sectors, agriculture was on a relative decline.
- Moreover, the interests of the farmers were safeguarded by measures to avoid the distortions<sup>46</sup> in domestic markets.

With the maturity of the trade regime, exemptions given to agriculture while beneficial for growers, in some instances on aggregate turned the sector less competitive in international market for most countries and the growth in international trade of agriculture produce remained limited (or below its potential).

The reduction in agricultural subsidies and protection had already been taken up and agreed upon in the Uruguay Round (1986 to 1994). Covered under the Agreement on Agriculture (AoA), these are significant steps towards fair competition and a less distorted agriculture sector in the days ahead. As per the agreed schedule, reduction in subsidies in tariffs, domestic support and exports is being implemented over a six-year period (10 years for developing countries) that began in 1995 (see **Table 2.1.1**). During UR the participants agreed to initiate negotiations for continuing the reform process one year before the end of the implementation period. As such, these negotiations are now underway. Under AoA the Least Developed Countries do not have to make commitments to reduce tariffs or subsidies.

In fact, the objective of the Agriculture Agreement is to reform trade in the sector and to make policies more market-oriented. This would improve predictability and security for importing and exporting countries alike. In this respect, the new rules and commitments apply to:

- **Market access** — *this relates to various trade restrictions confronting imports*
- **Domestic support** — *this takes into account subsidies and other programs, including those that raise or guarantee farm gate prices and farmers' incomes.*

**Table 2.1.1: Numerical targets for cutting subsidies**

	Developed countries	Developing countries
	6 years: 1995–2000	10 years: 1995–2004
<b>Tariffs</b>		
Average cut for all agricultural products	–36%	–24%
Minimum cut per product	–15%	–10%
<b>Domestic support</b>		
Total AMS cuts for sector (base period: 1986–88)	–20%	–13%
<b>Exports</b>		
Value of subsidies	–36%	–24%
Subsidized quantities (base period: 1986–90)	–21%	–14%

Source: WTO

<sup>46</sup> The concept of “distortion” is used a lot when agricultural trade is discussed. Essentially, trade is distorted if prices are higher or lower than normal, and if quantities produced, bought, and sold are also higher or lower than normal — i.e. *than* the levels that would usually exist in a competitive market.

- *Export subsidies and other methods used to make exports artificially competitive.*

### **Market Access**

The new rule for market access in agricultural products is “tariffs only”. Before the Uruguay Round, some agricultural imports were restricted by quotas and other by non-tariff measures. These have been replaced by tariffs that provide more-or-less equivalent levels of protection — if the previous policy meant domestic prices were 75% higher than world prices, then the new tariff could be around 75% (converting the quotas and other types of measures to tariffs in this way was called “tariffication”).

The agreement does allow governments to support their rural economies, but preferably through policies that cause less distortion to trade. It also allows some flexibility in the way commitments are implemented. Developing countries do not have to cut their subsidies or lower their tariffs as much as developed countries, and they are given extra time to complete their obligations. Special provisions deal with the interests of countries that rely on imports for their food supplies, and the least developed economies.

### **Domestic Support**

The main complaint about policies, which support domestic prices, or subsidize production in some other way, is that they encourage over-production. This squeezes out imports or leads to export subsidies and low-priced dumping on world markets. The Agriculture Agreement distinguishes between support programs that stimulate production directly, and those that are considered to have no direct effect.

Domestic policies that do have a direct effect on production and trade have to be cut back. WTO members have calculated how much support of this kind they were providing (using calculations known as “total aggregate measurement of support” or “Total AMS”) for the agricultural sector per year in the base years of 1986-88. Developed countries have agreed to reduce these figures by 20 percent over six years starting in 1995. Developing countries are making 13 percent cuts over 10 years. Least developed countries do not need to make any cuts.

Measures with minimal impact on trade can be used freely — they are in a “green box” (“green” as in traffic lights). They include government services such as research, disease control, infrastructure and food security. They also include payments made directly to farmers that do not stimulate production, such as certain forms of direct income support, assistance to help farmers restructure agriculture, and direct payments under environmental and regional assistance programs.

### **Export Subsidies**

The Agriculture Agreement prohibits export subsidies on agricultural products unless the subsidies are specified in a member’s lists of commitments. Where they are listed, the agreement requires WTO members to cut both the amount of money they spend on export subsidies and the quantities of exports that receive subsidies. Taking averages for 1986-90 as the base level, developed countries have agreed to cut the value of export subsidies by 36 percent over the six years starting in 1995 (24 percent over 10 years for developing countries). Developed countries have also agreed to reduce the quantities of subsidized exports by 21 percent over the six years (14 percent over 10 years for developing countries). Least developed countries do not need to make any cuts.

During the six-year implementation period, developing countries are allowed under certain conditions to use subsidies to reduce the costs of marketing and transporting exports

### Regulations for Animal and Plant Products

A separate agreement on food safety and animal and plant health standards (Sanitary and Phytosanitary Measures) sets out the basic rules.

It allows countries to set their own standards. But it also says regulations must be based on science. They should be applied only to the extent necessary to protect human, animal or plant life or health. And they should not arbitrarily or unjustifiably discriminate between countries where identical or similar conditions prevail.

Member countries are encouraged to use international standards, guidelines and recommendations where they exist. However, members may use measures, which result in higher standards if there is scientific justification. They can also set higher standards based on appropriate assessment of risks as long as the approach is consistent, not arbitrary.

Incidentally, the recent unsuccessful conclusion of the ministerial meeting at Cancun has now made it quite difficult to observe the already agreed upon timetable set to start with the new world trade order by January 1, 2005. This failure in negotiations while may jeopardize the efforts being undertaken to promote the international trade, over the past around half a century, pose a challenge to the diplomats that how these issues can amicably be settled to the satisfaction of the all.