9 Sector Studies

This chapter focuses on some key industrial sectors including textile, fertilizers, automobiles, and construction. These sectors have a direct contribution of more than 12 percent in the GDP of Pakistan, and have extensive backward and forward linkages with other economic activities in the country. The study of these sectors focuses on the demand and supply situation, policy environment, implications for exports and imports, and other sector specific issues.

9.1 Textile Sector

The economic activities in Pakistan are influenced considerably by the textile sector as evident in its direct contribution to domestic production, financial services and foreign exchange earnings (**Table 9.1**). In addition, the sector has strong implications on socio-economic conditions of the country given its role in employment generation.

Table 9.1 Contribution of Textile in Pakistan's Economy
at end FY11 (in percent)

GDP	7.4	Market capitalization	3.2
LSM	32.6	FDI	1.6
Employment	38*	Private loans	20.2
Exports	55.6	EFS	62.7

*Of total manufacturing labor force.

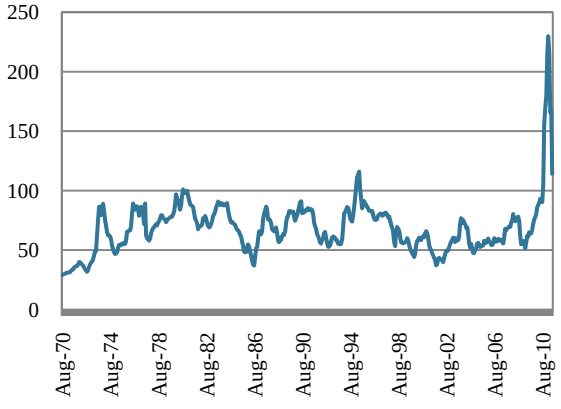
Source: Economic Survey 2011; State Bank of Pakistan

Although outlook for textile was fairly positive at the beginning of FY11, the sector had to face privation with intensified power outages and gas shortages. Moreover, devastating floods also affected textile production in H1-FY11. However, during the second half of the year, surge in global cotton prices provided earning opportunities in the form of unprecedented high export prices, which in turn induced production activities. Consequently, the textile manufacturing witnessed a growth in 10.9 percent in H2-FY11 compared with a YoY decline by -6.5 percent in the first half.

Benefitting from record increase in cotton prices

Cotton prices started rising sharply in October 2010 and touched a 150-year record level in February 2011 on the back of both supply and demand factors (**Figure 9.1**). From the supply side, major factors are crop loss due to flooding in Pakistan and Australia; unfavorable weather in China, declining US inventories and export cap by India. On the demand side, China's renewed commitment to build up cotton reserves; panic buying; as well as speculative positions in futures contracts pushed the cotton prices up.

Figure 9.1: Cotlook A Index



Source: Cotlook

This rise in cotton prices lead to a broad-based increase in textile products across the globe, which helped Pakistan earning record US $ 13.8 billion of foreign exchange through textile exports. The price impact was so strong that earnings from textile exports grew by 44.7 percent in H2-FY11 despite the quantum export

of key items like bed-wear, towels and cotton yarn declined during this period.[1] Nonetheless, there were other textile products, including cotton fabrics, hosiery, and silk and synthetic items, that witnessed rise in both quantum and value terms – driven mainly by relatively stable unit prices and competitiveness losses for Chinese products (**Table 9.2**).[2]

Table 9.2: Export Performance of Textile Sector (YoY growth**)**

	FY10			FY11		
	Quantity	**Value**	**Unit price**	**Quantity**	**Value**	**Unit price**
Textile group		6.8			35.2	
Raw cotton	104.7	124.0	9.4	-15.4	72.1	103.3
Cotton yarn	19.4	28.6	7.7	-15.2	51.0	78.0
Cotton fabrics	-5.8	-7.9	-2.2	27.2	42.4	11.9
Hosiery (knitwear)	0.0	1.4	1.4	22.6	30.4	6.4
Bed-wear	-0.7	0.5	1.2	-4.8	19.6	25.6
Towels	12.0	3.9	-7.2	-6.5	13.8	21.7
Tarpaulin and other canvas goods	4.0	9.4	5.2	-30.5	-19.5	15.7
Readymade garments	-3.4	3.2	6.9	32.2	40.7	6.4
Art silk and synthetic textiles	35.2	60.3	18.6	34.7	50.1	11.4

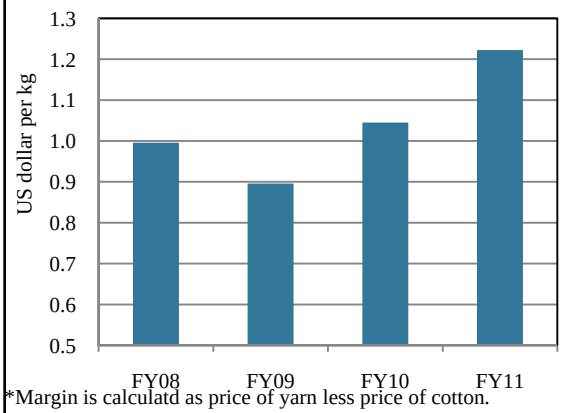
Source: Federal Bureau of Statistics

Despite this unprecedented increase in exports, we believe that Pakistan's export performance could have been better if; (a) energy supply were smoother – Pakistani exporters had to cancel a large number of booked orders due to fear of failure in on-time delivery; (b) textile manufacturer had also focused synthetic items – as substitutes to cotton; and (c) there were market mechanism in place for exporters to hedge against fluctuating yarn prices. The recent fluctuation in cotton market has accentuated the importance of some mechanism available in the country through which the exporters can hedge themselves in uncertain situations.[3]

Healthy margins boosting spinning sector

Despite a decline in cotton crop, spinning activities improved during FY11 on the back of fewer cotton exports, stronger cotton imports and healthy margins. During the first half the year, the spinning activities was depressed due to lower availability of cotton; however, in H2-FY11 production increased significantly when India lifted restrictions on cotton export enabling Pakistani manufacturers to bridge demand-supply gap.[4,5] The increase in yarn production in H2-FY11 is also explained by improvement

Figure 9.2: Yarn Margins in Pakistan



*Margin is calculatd as price of yarn less price of cotton.

Source: Emerging Textiles

[1] While the decline in quantity export of cotton and cotton yarn is due to lower availability of exportable surpluses; the decline in home textile products (bed-wear and towels) is a combined factor of inventory built-up with importing retailers, lackluster home furnishing market, and global buyers switching to high-end products from India.
[2] Chinese textile products are losing ground in US and EU market mainly due to rising labor cost.
[3] Securities and Exchange Commission of Pakistan has recently allowed Pakistan Mercantile Exchange Limited (PMEX) for futures trading in cotton. However, it is yet to be seen how different stakeholders go along with this setup.
[4] Pakistan imported 188 thousand MT of cotton during H2-FY11 compared with 157 thousand MT in H1-FY11.
[5] Cotton yarn production increased by 7.6 percent YoY during H2-FY11 compared with 1.6 percent YoY during H1-FY11.

in spinning margins – for the second consecutive year (**Figure 9.2**). The healthier margins not only improved production in the sector but also attracted investments – the import of spinning machinery increased by 23.3 percent in FY11.

Risks ahead for fabrics

A large part of fabrics export growth in FY11 was temporary and is less likely to sustain in FY12. Specifically, detailed export data suggests that the increase in fabric export during H2-FY11 was mainly to Turkey.[6] However, fabrics demand by Turkey may not continue going forward after imposition of safeguard restrictions on textile inputs by Turkish government in July 2011.

On the other hand, fabrics export to Bangladesh may continue to support this sector in Pakistan. In January 2011, European Union eased rules of origin for textile import from Bangladesh: according to revised rules garment manufacturers in Bangladesh can avail generalized system of preferences (GSP) benefits even if they use Pakistani fabrics as input.[7] This caused an increase in fabrics export to Bangladesh in H2-FY11 onward.

Problems in apparel and home textile sectors

Although Pakistan's exports of apparel (both knitwear and woven garments) increased sharply in FY11, it could not raise its share in the world markets. While China has lost some part of apparel market due to rising wage pressures and Yuan appreciation, the market was captured by countries like Bangladesh and Cambodia. The Pakistani manufacturers – struggling with energy shortages and law and order situation – could only uphold their existing market share (**Table 9.3**).

Table 9.3: Share (%) in Apparel Markets (in quantity)

	US		EU	
	FY10	**FY11**	**FY10**	**FY11**
China	41.7	40.8	50.3	49.9
Bangladesh	6.4	6.7	12.0	13.0
Cambodia	3.6	4.1	0.9	1.0
Vietnam	7.6	8.9	2.1	2.2
Pakistan	2.9	2.8	2.7	2.8
India	4.1	3.9	5.7	5.2

Source: Eurostat and OTEXA

Besides adverse business conditions, Pakistan's concentration in cotton apparel market was another factor that hindered in increasing the market share. Due to sharp increase in cotton prices, buyers were more attracted towards non-cotton apparel (including man-made fiber, wool, etc.). However, Pakistan's exports of non-cotton apparel are almost minimal due to a protected synthetic fiber market over the years and inability of textile manufacturers to equip for synthetic textile processing.

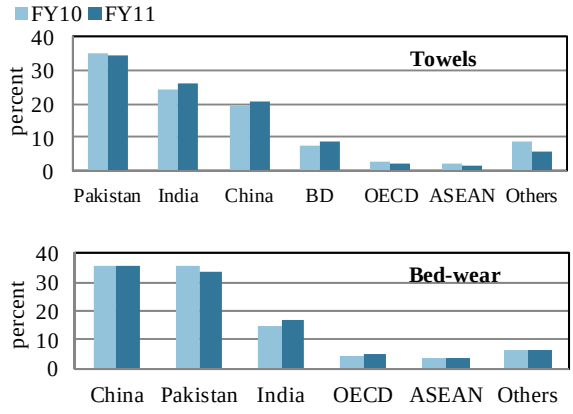
Similarly, Pakistan has also lost its share in world market of home textile. While the home textile market in world remained under pressure in general due to weaker than expected recovery in US and EU economies and surge in prices, the impact on Pakistan's export was more pronounced. The export of bed ware and towel (having share of more than 20 percent in total textile export from Pakistan) declined in quantum during FY11. Particularly, Pakistan lost its share in US market against India in bed-wear category as buyers switched to import higher-end products. This was a surprise yet understandable switch, as buyers preferred higher-end Indian products over low to medium-end Pakistani products by paying a smaller premium than before.

[6] Around 12 percent of Pakistan's total fabric exports are destined for Turkey.

[7] Bangladesh is a recipient of least developed countries' (LDC) preferential access to EU market under the GSP. Accordingly, textile exports from Bangladesh duty free access to EU under Everything but Arms (EBA) scheme (duty free access is available to only LDCs). This makes textile products of Bangladesh more competitive compared with non-recipients of EBA (including Pakistan).

In towels category, Pakistan lost its share against low cost Bangladesh, India and China (**Figure 9.3**).

Figure 9.3: Shares (%) in US Home Textile Market



Source: OTEXA

It is therefore, safe to conclude that textile sector in Pakistan is going to face stiffer competition from neighboring economies and it would become difficult for it to survive if there is no modernization in production process and new marketing strategies are not adopted.

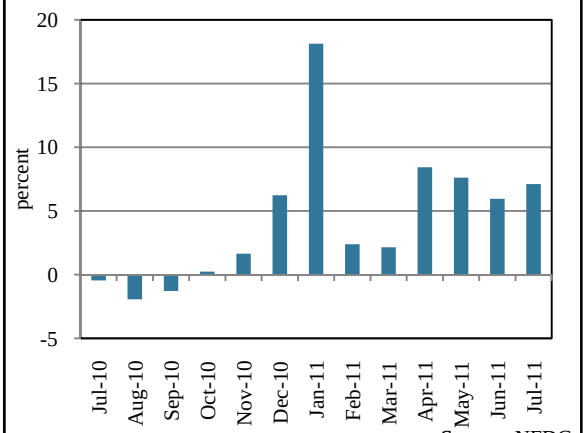
The favorable price shock observed in FY11 is less likely to be repeated going forward. For FY12, improved cotton outlook in Pakistan, India and China may provide some supply side ease to the textile sector, [8] but the ongoing problem of energy shortages and fears of global economic slowdown put serious question mark on export performance of local textile industry.

[8] Despite loss of cotton crop in Sindh due to floods, the overall estimate for the crop in Pakistan is still above 12 million bales.

9.2 Fertilizer

Ensuring the timely availability of urea (domestic or imported) should remain the government's overarching policy objective in light of the sector's importance as an essential input for the entire agriculture sector. And the issue at the heart of the country's urea shortage – and associated spillovers on the economy – is the national natural gas shortage. Unless, the government creates and communicates a credible gas allocation policy – and does not resort to ad-hoc measures – there will always be the sort of speculation, shortages and hoarding in the urea market that characterized the latter half of FY11.

Figure 9.4: MoM Growth in Urea Prices



Source: NFDC

Inconsistent gas allocation policies

Although the fertilizer industry is given priority after domestic consumers in the National Gas Allocation and Management Policy 2005, recent policy decisions have not reflected the precedence laid out in the policy. Whether it makes sense economically to divert gas to the fertilizer sector (the industry's estimates clash with the numbers of a report authored by a USAID-sponsored consultancy) is another debate, but these back-and-forth decisions serve to reinforce the perception that government allocation policies are inconsistent, and hence discouraging for future investment decisions.[9] Fertilizer manufacturers do have contracts guaranteeing gas supply for nine months of the year and at least one of them has previously gone to court to force the government to supply gas to its plant. It remains to be seen if such a course of action will be considered once again by the fertilizer manufacturers.

However, as things stand now, fertilizer manufacturers will be subject to a gas load management schedule that will constrict production. Our estimates indicate that urea production for the rabi season in FY12 – if this schedule is adhered to – will be 2.1 million tons, leading to a deficit of 1.2 million tons, according to our own assessment of a demand for 3.3 million tons in the rabi season. However, manufacturers will likely not raise their prices beyond Rs1600 per bag unless there is additional curtailment. Since plants on the SNGPL network are expected to be the worst affected under this gas load management schedule, the informal price of urea will probably be higher in the northern part of the country.

Encouraging hoarding

Inconsistent policies will always provide incentives for significant hoarding of urea and further unofficial price increases. Since the government is still reliant on imports of urea to fulfill domestic demand, there will always be a question mark regarding the timely availability of urea in the market. If the government fails to time its import of the commodity precisely, and ensure that stocks are distributed systematically throughout the country, dealers will want to hold on to their stocks in anticipation of future price increases; and apprehensions of future availability. Buffer stocks will dwindle and the market will create self-fulfilling expectations of a shortage. In fact, the mere announcement of the current gas management framework and the expected rise in natural gas tariffs for the fertilizer industry raised unofficial market prices and incentivized hoarding as traders foresaw a rise in urea prices.

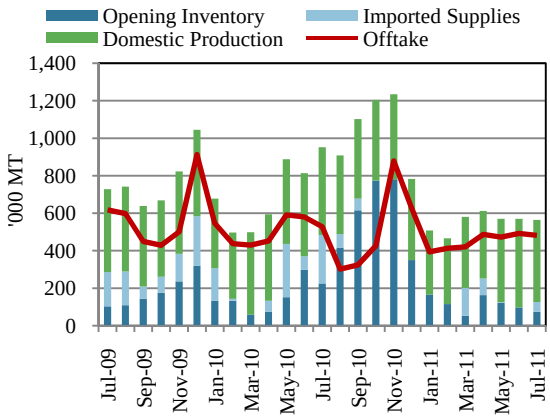
[9] Our own calculations indicate that the fertilizer-power allocation problem for natural gas is too close to call on the basis of dollar value per unit of gas alone

Falling consumption

The shortage of urea and the resultant price hikes and the floods meant that urea consumption remained suppressed in FY11.

Consequently, urea off-take fell by 11.9 percent in FY11 compared to the preceding year (**Figure 9.6**).[10] The decrease in urea off-take was disproportionately more during the kharif months as compared to the rabi season. Thus, the effect on yield for the year's wheat crop was marginal.

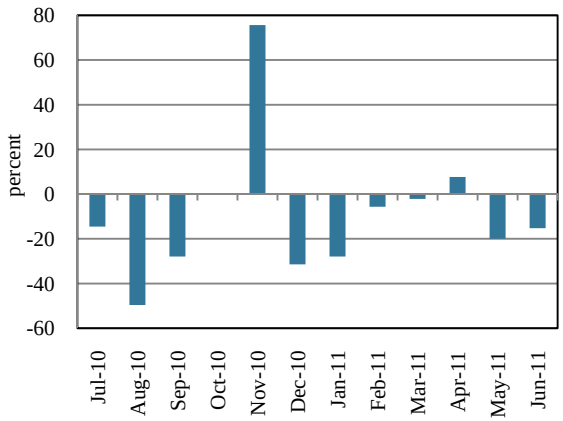
Figure 9.5: Urea Availability and Consumption



Source: NFDC

The decrease in urea off-take in the last two months of the fiscal year, despite the rise in farmer incomes due to a bumper wheat crop, indicates that the issue at hand was the unavailability of urea in the market. Gas shortages to plants on the SNGPL network led to a substantial under-utilization of domestic capacity. With no plan for urea imports in sight at the start of the kharif season, and the expected rise in urea prices as producers sought to conserve profits following gas shortages, incentives to hoard the commodity materialized and further squeezed out urea from the market.

Figure 9.6: YoY Urea Offtake Growth



Source: NFDC

Shortages to persist in the short-run

With demand expected to peak in December, we believe that another urea shortage is around the corner with urea imports likely to be too little, too late for the wheat crop.[11] Anecdotal evidence reveals that urea shortages seemed to be more severe in the northern parts of the country. Since the plants that have borne the brunt of gas outages are on the SNGPL network, and transport costs make it lucrative for manufacturers to supply urea to areas closest to their production facilities first, the southern parts of the country may be better off in terms of urea availability than the north.

Required: A consistent gas allocation policy

It was also unfortunate that the ECC's decision – taken on May 7 – to divert gas to fertilizer plants at the expense of IPPs was not implemented. Fertilizer manufacturers were supposed to bear two-thirds of the incremental cost of running the power plants on diesel as opposed to natural gas. We believe that the decision was a viable framework in the short-run since fertilizer manufacturers were both willing and able to pay the cost of gas shortages. The price of urea would probably have increased since the manufacturers would have passed on this extra cost, but

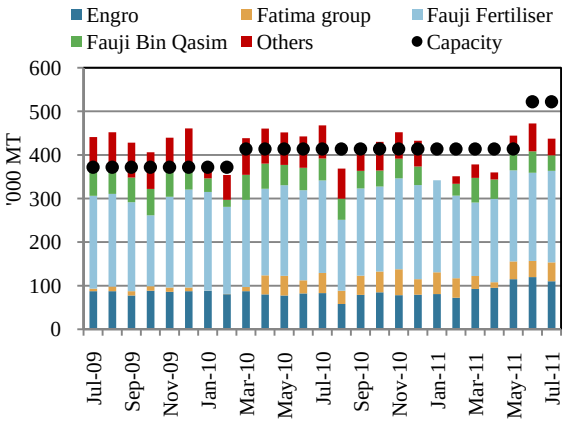
[10] The spike in urea consumption in Nov-10 was due to flood-relief activities and the distribution of free fertilizer by the government.

[11] For a urea import requirement of 1.2 million metric tons, the time to offload vessels carrying 50,000 MT tons each is around 24 weeks or more than 5 months – assuming one vessel takes only a week to offload.

domestic production would also have met demand and a price war could have ensued. Moreover, the price of urea has increased anyway in the wake of natural gas curtailment to plants. The framework would have also eliminated the import of, and the resultant subsidy on urea. Ultimately, expensive urea is better than no urea for agricultural productivity.

Therefore, the need for a definite and consistent natural gas allocation policy is the need of the hour for the fertilizer sector to address the uncertainty surrounding domestic production. A consistent policy – whether it is based around imported urea or domestically produced urea – can also manage market expectations and reduce price volatility. If the country does decide to move towards importing its fertilizer requirements, then we believe the role of the government needs to be minimized to let the market ensure the availability of fertilizer. If, however, fertilizer is to be produced using domestic capacity, then the government needs to rationalize gas allocation and tariffs while ensuring that the sector's domestic gas requirements are met. The policy needs to be set in stone to anchor market expectations and set a roadmap for ensuring the supply of fertilizer to the agriculture sector.

Figure 9.7: Monthly Urea Production



Source: NFDC, firms' financial statements and websites.

The question of imports

Since the natural gas shortfall will not be resolved in the short-term, it is safe to assume that the government will have to import urea in the new fiscal year. The government will also have to subsidize imported urea because the international price of the commodity is higher than the current domestic price. If the load management schedule highlighted earlier is followed, then we believe urea import requirements for the rabi season will be 1.2 million metric tons, which will cost the country around $620-640 million in foreign exchange and cost the government Rs 42 billion in subsidies (**Box 9.1** for a detailed discussion on subsidies).

Box 9.1. A Flawed Subsidy Transmission Mechanism

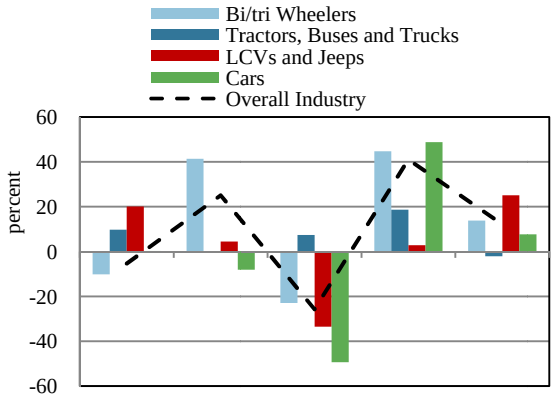
The amount of subsidy granted by the government per bag is more than the international-domestic price differential per bag. This is a consequence of the subsidy transmission mechanism. Urea is imported by the Trading Corporation of Pakistan (TCP) at (or slightly above) the international market price and sold to the National Fertilizer Corporation (NFC) at Rs528 per bag. This price has been set by the Economic Coordination Committee of the Cabinet. NFC then distributes the fertilizer through its marketing arm, National Fertilizer Marketing Limited (NFML), across the country. Unfortunately, this creates ample opportunity for various creative methods of corruption. The subsidy is, therefore, untargeted. Press reports regarding an FIA investigation into a "urea scam" at NFC/NFML are strong indications that the mechanism for the distribution of imports is defective.

In summary, it is important to reiterate that the problems in the fertilizer sector are solely a consequence of the ad-hoc policies deployed to manage the natural gas shortage. Apart from reassessing the role of NFC and NFML in importing and distributing urea, the government needs to set out and stick to a clear gas allocation framework to manage market expectations and halt speculative activity.

9. 3 Automobile Industry

Despite a host of global and domestic challenges, a recovery in the local automobile sector seen last year continued in FY11. Cash-driven consumer demand[12] provided an impetus to production, even as the local industry weathered setbacks from floods at the start of the year; changes in government import policy for the auto sector; and a disruption to global supply-chains of auto parts from the Japanese earthquake and tsunami. Automobile production for FY11 was 10.3 percent higher than the previous year[13]; this was despite consumers holding off on new buying in June 2011 to benefit from a reduction in sales taxes for the new fiscal year.[14]

Figure 9.8: Automobile Industry Production



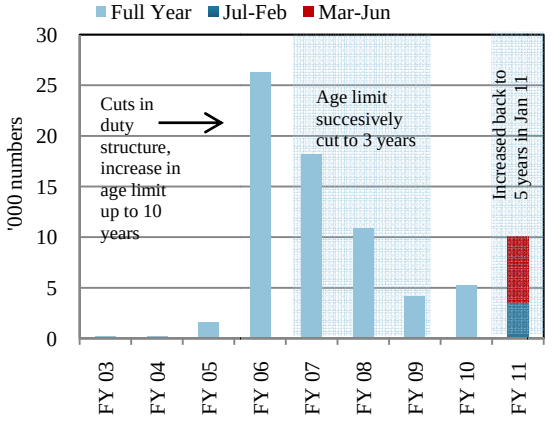
Source: PAMA

Consumer demand led growth

While the production of cars, jeeps, bi/tri-wheelers[15] and light commercial vehicles (LCVs) increased; vehicles used for commercial purposes such as tractors, buses and trucks witnessed a decline (**Figure 9.8**).

Manufacturers attribute this to a fall in demand in these segments. In the case of tractors, demand has been hurt by the government's decision to impose sales tax on tractors in March 2011. [16] As a result, producers claim that new tractor purchases are no longer viable for small-scale farmers – a key source of demand. In addition, lower availability of credit from banks-particularly ZTBL- also provides an explanation for the contraction in demand. Consequently, manufacturers have responded by cutting-back on production.

Figure 9.9: Changes in Import Policy for Used Cars



Source: All Pakistan Motor Dealers' Association

Changes in government policy

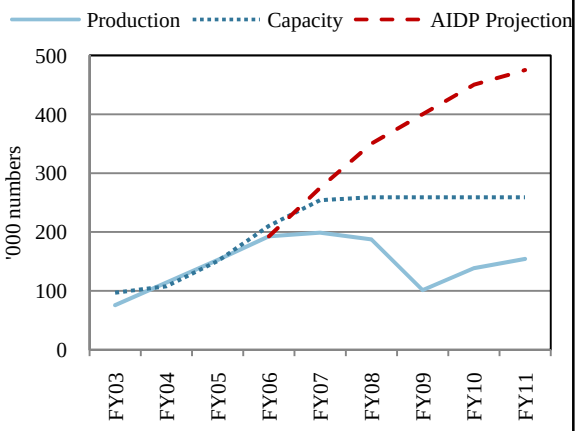
Imports of used cars: the most significant shift in the government's policy for the sector was the easing of restrictions on imports of used cars. In a renewed attempt to foster price-competition in the sector, the government increased the

[12] Anecdotal evidence suggests that demand for cars continued to be led by cash-buying; despite improvements over the last couple of years, the role of consumer financing remains limited.
[13] In FY10 it grew by 36.4 percent, although this reflected the low base of FY09 when the industry faced a downturn due to the collapse in banks' consumer financing for automobiles. Source: Federal Bureau of Statistics (FBS) LSM Index.
[14] The government announced a reduction in sales tax on new vehicles from 17 percent to 16 percent for FY12 at the end of FY11.
[15] This category includes motorcycles.
[16] Tractor sales were previously exempt from sales tax.

age limit for used cars from 3 to 5 years[17]; and increased the maximum depreciation charge for import duty purposes from 50 percent to 60 percent of the car's value. Subsequently, imports of used Completely Built Units (CBUs) rose over 85 percent compared to the previous year (**Figure 9.9**). This represents a significant increase in supply to the local automobile market; although the degree to which it provides direct competition to established local assemblers with strong brand loyalty remains to be seen.

Original Equipment Manufacturers (OEMs) argue that encouraging imports-while the local industry is operating around half of its installed capacity-is detrimental for long-term growth prospects of the local industry (**Figure 9.10**).

Figure 9.10: Capacity Utilization in the Auto Industry *



* includes cars, jeeps, vans and LCVs

Source: Firms, PAMA, SBP calaculations

We feel the existence of excess capacity in the local car industry - in the face of strong demand for imports - is surprising, particularly if the two are close substitutes. That is, the existence of a demand-supply gap in the domestic market (that the government seeks to address by a liberal import policy) should have prompted local assemblers to increase production to cater to this demand.[18] However this would be the case only if imported used cars and locally assembled new cars were indeed close substitutes and competed in a *single market*.

In our opinion, the current situation points to the existence of multiple markets for cars; whereby imported used cars may not pose direct competition to segments served by local assemblers. Indeed, the data suggest that the strongest growth in imports–as a result of policy changes-appears to be in the price-sensitive end of the market where Pak Suzuki operates (rather than manufacturers of larger cars) [19] It is perhaps this segment where smaller imported used cars are able to compete with locally assembled cars; rather than the market for new cars as a whole.

While the case for a uniformed import scheme has merits, any further increase in the age limit of used cars, however, must be seen in the other costs to the local economy; particularly the potential negative environmental externalities from old engines and technologies of used cars. Therefore, considerations of increased consumer choice must be balanced against these broader economic costs.

New entrant policy: the government and OEMs are also at loggerheads over incentives to be offered to foreign firms willing to set up production facilities in Pakistan. Essentially, the disagreement is centered around the tariff rate on imports of Completely Knocked Down (CKD)

[17] The government had previously eased restrictions on used car imports in FY06; allowing imports aged up to 10 years. However this was lowered to 3 years by FY09. The recent relaxation in the age limit for cars was later extended to include buses.

[18] Assuming that local production has a cost advantage to imports, consumers should prefer locally produced cars to imported used cars if the two are close substitutes. This would eliminate the possibility of excess capacity in the local industry and strong demand for imports. However in the current situation local firms face excess capacity, while demand for imports is robust. This casts doubt on the existence of a single market for locally assembled new cars and imported used cars, and supports the premise of dual markets.

[19] Cars with engines below 1300 cc accounted for 63.1 percent of used cars imports in FY11.

kits. The government appears inclined to offer tariff and duty concessions for the first few years of operation on such imports of parts, to attract foreign investment in the industry. This has met with resistance from incumbent firms who claim that such measures are against the spirit of the Auto Industry Development Program (AIDP) – the five year tariff framework due to expire next year. They argue that the proposed incentives would provide an unfair cost advantage to the new entrants; and that instead the government could offer alternative concessions e.g. on land for production facilities.

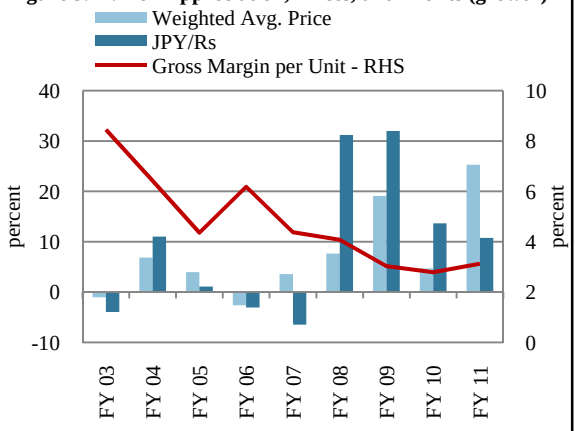
In our view, policies that add to price-distortions in product markets are less desirable to ones that foster a competitive playing field for all firms. While, it is clear the local industry would benefit from increased competition, price-competition in particular should not solely be the result of a government policy that favors some firms over others. Therefore, while short-term concessions to attract foreign investment may be necessary, we feel that a medium-term policy that encourages competition based on efficiency of production, both, from within and outside the local economy is preferable to one that inhibits market-based outcomes.

Budgetary measures for FY12: a reduction in sales tax from 17 percent to 16 percent, and the elimination of special excise duty (SED) incentivized consumers to hold-off on buying in June 2011 to benefit from the reduction at the start of the new fiscal year. As a result, sales of new cars fell around 56 percent for the month of Jun over the previous year.[20] As expected, this decline reversed at the start of the new fiscal year as the tax relief set in.

Car prices and pass-through of Yen appreciation

Assuming that the bulk of CKD imports for the manufacturers are imported from Japan, we analyze the pass-through of changes in the value of the Japanese yen (JPY) as a possible explanation for the recent rise in car prices. For FY11, our analysis of weighted-average prices[21] of locally assembled cars shows an increase of nearly 25 percent, outpacing the approximately 10 percent JPY appreciation against the Pakistani Rupee (PKR) (**Figure 9.11**).

Figure 9.11: Yen Appreciation, Prices, and Profits (growth)



Source: State Bank of Pakistan, firms' financial statements

Unsurprisingly, this has attracted considerable criticism of the local industry; even prompting government attempts to convince manufacturers to lower prices, and culminated in a relaxation of restrictions on imports of used cars discussed above.

Despite, the disproportionate increase in prices vis-à-vis appreciation of the yen, a look at profitability of the local assemblers shows that gross margins per unit have remained largely unchanged over the last couple of years. This observation points to a broader increase in production costs, such as the rise in costs of key inputs e.g. steel, polypropylene, aluminum and copper over this period. Therefore, we feel changes in local car prices must be seen in this

[20] Source: Pakistan Automobile Manufacturers Association (PAMA)

[21] This includes the three largest car manufacturers operating in Pakistan; Pak Suzuki, Indus Motors and Honda Atlas. Prices are derived as the ratio of sales revenue to unit sales, and are weighted by the firm's market share of unit sales. Source: firms' financial statements; PAMA; and SBP calculations.

broader context - rather than merely as a function of changes to input costs as a result of developments in foreign exchange markets.

Supply-shock from the Japanese earthquake and tsunami

The disruption to supply-chains of auto parts from the devastation Japan experienced in March 2011 caused considerable direct and indirect production losses to the global auto industry. However, the impact on the local industry was not as severe as originally feared; Indus motors suspended bookings temporarily, but these resumed in around three weeks. While overall production for the year was lower as a result, anecdotal evidence suggests that delivery times for most models have subsequently improved.

Outlook for FY12

The performance of the industry is likely to be influenced by the recent changes in government policy over the course of the new fiscal year.

Taxes and impact on car prices: a reduction in sales tax and elimination of SED in the new budget for FY12 provided an impetus to sales at the start of the year. However, the net impact on sales for the full year will depend on the extent to which the final cost to the consumer declines in response to lower taxes- or alternatively how far the increase in producer prices offsets this benefit to consumers. Anecdotal evidence so far suggests that the reduction in taxes has not lead to a proportionate fall in consumer prices.

Government demand: The Government of Punjab plans to provide 20,000 'yellow cabs' to the unemployed youth of the province. In this regard, an agreement has been reached with Pak Suzuki to supply these cars, and bodes well for the firm's capacity utilization levels. It may be recalled that a similar 'yellow cab' scheme was implemented in the 1990s with Daewoo and Hyundai cars as taxis.

Import policy: The depreciation rate for the calculation of customs duty has been increased from 1 percent to 2 percent. This was a key demand of importers and dealers in order for used car imports to provide meaningful competition to locally assembled cars. This is particularly relevant since the cap on depreciation has also been raised from 50 to 60 percent (as discussed above).

In this backdrop we expect strong imports of used cars to continue in the new fiscal year. Our outlook is based on an improving logistics situation in Japan – the main source of imports - and the possibility of additional measures in the new trade policy to liberalize imports e.g. the possibility of further increases in the maximum age limit; lowering of duties and perhaps even allowing the commercial import of used cars.

9. 4 Construction and Building Materials

In FY11, the construction industry posted the lowest growth in a decade, a marginal 0.8 percent.[22] This number was particularly distressing in the backdrop of the 59-year high growth posted in FY10 (28.4 percent). Although last year's construction drivers were not expected to sustain for very long – given the anticipated financing constraints in both the public and private sectors and dull activity in real estate markets – but performance of the industry in FY11 did not even come up to the low expectations. Growth fell short by 3 percentage points of the target set by the Planning Commission at the outset of the year.

Two developments during the course of the year explain this underperformance. Firstly, floods and heavy rainfall in Jul-Aug 2010:[23] while this led to higher reconstruction demand on the one hand, transporting bulky construction material during the monsoon became difficult due to damaged road networks. Moreover, a prolonged monsoon and early winter shortened the peak construction period. Secondly, production declined in many building material industries, which led to higher cost of construction.

Table 9.4 Construction Indicators Summary
Growth in percent unless otherwise stated

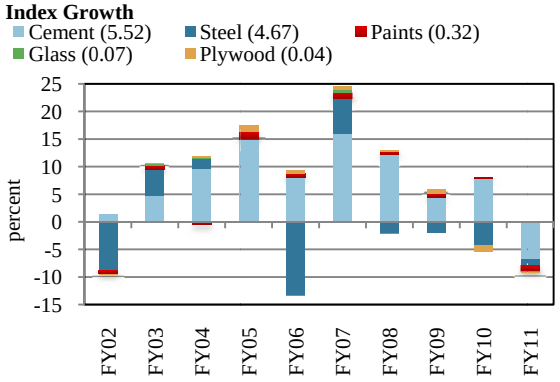
	FY09	FY10	FY11
Construction real GVA	-11.2	28.4	0.8
Share in GDP	2.1	2.6	2.5
Building materials production	4.0	2.7	-9.1
Building materials prices	20.2	-5.4	12.5
Construction GFCF	-6.9	-34.9	-20.9
Credit to construction	-10.9	-5.5	0.9
Construction FDI	4.6	9.8	-40.2
Employment share	6.6	6.7	7.0

Source: Federal Bureau of Statistics, Labor Force Survey, and State Bank of Pakistan

9.4.1 Building Material Shortages

The building materials index (BMI)[24] of production turned negative for the first time in five years, recording a decline of 9.2 percent during FY11, compared to 2.7 percent growth last year. This was also the first time that production declined across the board in the BMI. While low demand was one of the reasons for lower production, we believe that an inverse feedback loop may have existed: i.e. supply shortage led to higher prices which weakened construction demand, especially when expected returns on real estate were low (**Box 9.2**).

Figure 9.12: Contribution to Building Materials Production Index Growth



*Values in parantheses are percent shares in LSM index. Total share of BMI is 8.4 percent.

Source: Federal Bureau of Statistics

Interestingly, two factors independent of demand also significantly influenced production: energy shortages and prices, and lack of competition. In some cases, a combination of both these factors was at work.

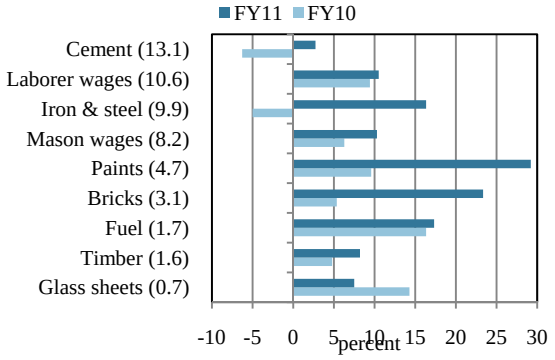
[22] This is an estimate for the first nine months only, and anecdotal evidence suggests that construction slightly picked up in the last quarter. We therefore expect some upward revision in construction GDP estimate for FY11.
[23] According to National Disaster Management Authority (NDMA) estimates, 1.9 million houses, 12,516 school buildings, and 579 medical health facilities were destroyed. Moreover, river embankments along the Indus were breached and two major headworks, Munda and River Swat, were also damaged. The resulting inundation caused widespread damage to infrastructure. (NDMA floods website: http://www.pakistanfloods.pk/pakistan-flood-2010)
[24] The building materials index is the sum of sub-indices of cement, steel, paints, glass, and plywood constructed by the Federal Bureau of Statistics. Together, these five industries have 10.6 percent share in the LSM index.

Box 9.2 Do Higher Costs Hurt Construction?

For the construction industry, the last two fiscal years have been reverse replicas. In FY10, building material prices declined by 5.4 percent and construction grew by 28 percent. In the following year, prices rose by 12.5 percent while construction growth dropped to 0.8 percent. Is there a negative causality between construction growth and inflation?

To determine that, it is important to have an idea of exactly how much prices of building materials affect the budget outlay of a contractor or builder. A survey of the construction industry carried out by the Federal Bureau of Statistics in 2003 showed that around 85 percent of construction costs comprise of building materials and labor payments, while the share of financial, insurance, depreciation, and other running costs etc. was negligible (**Figure 9.13**).

Figure 9.13: Inflation in Construction Costs



*Values in parentheses are average shares in total construction cost based on FBS's Study on Construction (2003).

Source:Study on Construction", Federal Bureau of Statistics .

A rise in building material prices immediately slows down construction work because it necessitates renegotiation between contractors/builders and the clients. Delaying negotiations has opportunity costs, such as the cost of retaining labor on site, storing the building material procured so far, and calling or holding off deals that are yet to be realized. Although most construction contracts contain a clause to adjust for cost escalation, anecdotal evidence shows that renegotiations can be difficult. At times when builders have a significant stake in the project, they may have to compromise their own margins to keep it running. In the longer term, new projects could be put off or shelved if construction costs are persistently high. Based on these arguments, one would expect a negative relationship between the price and value addition in construction.

Table 9.5: Granger Causality Test Results (FY82-FY11, two lags included)

Null Hypothesis	F-Stat	Prob.	Conclusion
Inflation does not Granger cause GDP growth	5.17	0.01	Reject
GDP growth does not Granger cause inflation	2.94	0.07	Reject

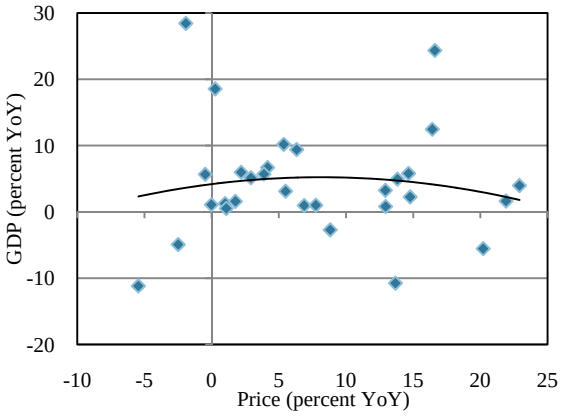
On the other hand, the causality can also be reverse: that inflation in building material prices is driven by construction demand, and not vice versa (assuming that demand is strong enough to sustain cost inflation). This argument finds support in anecdotal evidence: builders and contractors hold that raw material shortages in building material and construction labor markets instantly lead to higher prices.

Empirical evidence suggests that the causality might run both ways (**Table 9.5**). Granger tests for construction GDP growth and building materials price inflation concluded that for the period under review, inflation and growth had two-way Granger causality. While the hypothesis of demand-driven inflation was weakly held, there was stronger evidence of inflation Granger- causing GDP growth.

Interestingly however, the inflation-to-GDP Granger-causality was direct. That is, for the period under study, inflation was positively linked with growth in the construction industry. This is contrary to the expectation that high inflation could retard growth.

Another measure, the price elasticity of demand, however indicated no meaningful relationship between the two variables (**Figure 9.14**). However, it appeared that for the period under study, construction has been largely inelastic to changes in costs.

Figure 9.14: Price Elasticity of Construction GDP



Source: Federal Bureau of Statistics

To summarize, activity in the construction industry and inflation are at best weak predictors of each another. This points to the presence of another variable, or a set of variables, which influence how GDP and inflation behave.

It is most likely that the variables are highly inter-connected. A key to these predictors perhaps lies in the investment nature of construction. Like all investments, costs are relevant only in the context of expected returns. The returns, or the price at which the property can be sold in the future, again depends upon a number of factors, such as activity in the capital and real estate markets, market risk and risks arising from law and order problems, expectations regarding changes in tax regime, etc. Interestingly, the trend in building material prices might give a good insight into demand, and is perhaps important in shaping real estate market expectations. Bullish real estate markets may in turn spur construction activity.

The building industries face several energy-related problems. Firstly, irregular supply of gas and electricity affected industries which require constantly heat to keep the raw material malleable; such as glass, steel re-rolling (gas-based), and steel melting (electricity-based). Secondly, rising fuel prices added to costs of transportation of both inputs and outputs: glass became more expensive in the south as the entire industry is north-based. Similarly, relatively cheaper steel scrap from ship-breaking at Gaddani as well as imported scrap became costlier upcountry due to the higher transport expenses.

Coal prices also increased, pushing up cement production cost. However, the cement industry bore the price shock much better as this industry has invested a lot in energy efficient processes in the recent past; such as waste heat recovery plants and the increasing use of alternate fuel in kilns (rice husks, refused dried fuel, used tires, etc.). Unfortunately, regulatory glitches are preventing a more aggressive replacement of imported coal.[25]

However, despite the rise in costs and low demand, some industries were able to conserve their margins by lowering production levels. This behavior was enabled by the fact that little or no import competition exists in some building material markets. For example, in the cement industry, imports are not feasible because of the low price to volume ratio of cement: transport costs would add up significantly, bringing the price of imported cement above the local price, even when local prices are very high.

In fact, there is evidence that low domestic demand was not the primary reason for production decline in some industries. Apparently, a couple of industries purposely lowered their exports despite the fact that higher exports could have improved scale economies. For example, some cement manufacturers openly declared that they will reduce exports because higher prices can be fetched in the local markets. A similar market behavior was apparent in soda ash industry (input for glass), which reportedly increased prices by 20 percent during the year while exports volume declined sharply.

Lastly, interior paints were the only industry in which lower volumes reflect a structural change. Many of the large paint companies are now shifting towards color customization technology, through which customers can have paint of any shade prepared in no time. However, this technology is expensive and has a limited, high-end market. Apparently the paint companies are finding it more profitable. Resultantly, while paint prices in the formal sector increased by as much as 30 percent in FY11, production declined by 25 percent. Anecdotal evidence suggests that demand of low-end consumers is now being catered by small-scale factories in the informal sector.

9.4.2 The Struggle for Funds

Lack of funds was one of the key themes underlining construction growth in FY11 in both the private and public sectors. Coupled with a sharp rise in building costs, real flows were curtailed

[25] The Thar coal development project is taking off very slowly and high custom duties on imported tires are preventing a more widespread use of the same in cement kilns.

even further. Lastly, bearish sentiments prevailed in real estate markets which led to decline in both domestic and foreign investment.

Allocated Public Sector Development Program (PSDP) funds were cut back significantly during the year, [26] partly necessitated by immediate relief requirements in flood affected areas. However we believe fiscal over-runs would have existed even without this added spending burden. Freeze in public funds resulted in a number of ongoing and planned projects being shelved. In addition to this, some foreign donors also held back lending, which led to stalling of construction at least one major dam site.

In the private sector, although demand was not very strong to begin with, cash flow constraints became a problem for the few running projects. Bank lending to the construction sector increased only marginally by 0.9 percent in FY11, on top of decline posted in the previous two years. This was mainly due to high default rates in the sector. Mortgage financing default rates crossed 25 percent in FY11, a record high.

Moreover, anecdotal evidence showed that builders of community housing projects (which typically do not avail bank loans) also faced defaults on monthly installments paid by the clients. Lastly, re-negotiating installment payments in the wake of high inflation also became difficult as prospective homeowners refused to accept cost escalation adjustments.

On a positive note, the State Bank of Pakistan is taking measures to facilitate bank financing to the construction and housing sector. These include, revised infrastructure financing guidelines (August 2010); promoting finance for housing construction through the establishment of Pakistan Mortgage Refinance Company (to be launched in H1-FY12) and by helping banks develop large-scale builder finance products (an ongoing project); and inclusion of glass sector for concessionary bank loans (under the Long Term Finance Facility in January 2011). It is hoped that these measures will lead to easier availability of funds to facilitate future growth.

A moderate pick-up in construction is expected in the year ahead

Going forward, we expect the availability of financing for the sector is likely to improve if easy monetary policy stance goes on. Moreover, specific measures for the housing finance (as mentioned above) will support growth in the sector by facilitating the supply of necessary liquidity.

Moreover, planned public investment in post-flood rehabilitation, infrastructure and power sector, including the IP gas pipeline and construction of a number of dams will also support the sector. Encouragingly, the PSDP expenditure numbers for Q1-FY12 show that funds for major dams and infrastructure are being timely released this year.

To materialize this growth opportunity, support will be needed from the allied building material industries. However, growth in these industries is harder to forecast. As we have seen in the past, factors other than demand have been hampering production.

A slight setback might result from a 16 percent sales tax on bricks and concrete blocks in Budget FY12. These industries were hitherto exempted from taxation. While the new levy will bring down demand to some extent, we believe that taxing the brick industry is a step in the right

[26] Current expenditure allocation for housing and community amenities sector was Rs. 1.8 billion in Budget FY11. This was later revised down to Rs. 1.7 billion, a decline of 9.8 percent. The development budget for the housing and works sector was Rs. 3.6 billion, which was later brought down to Rs. 1.5 billion, by (-)57.3 percent.

direction. Brick making is a huge industry of Pakistan but is almost completely undocumented.[27] Unfortunately, past drives to document and tax this industry were prematurely thwarted after vehement resistance by kiln owners. It is only hoped that the government resolutely follows through the recent effort.

[27] Pakistan is the world's third largest producer of bricks, after China and India. According to an estimate, Pakistan's annual brick production is 100 billion per year. Source: Ellen Baum, "Black Carbon from Brick Kilns", Clean Air Task Force, presentation April 7, 2010. www.iiasa.ac.at/rains/meetings/.../Day2/Chaisson_brickkilns.pdf