2 Real Sector

2.1 Overview

While it is too early to make any definitive statement on aggregate demand, there are some signs of improvement in private consumption, investment, as well as government support. Specifically:

- Increase in consumption demand is evident from higher production of consumer goods and renewed interest in auto finance. This improvement in domestic demand is supported by growth in workers' remittances, stable corporate profits and lower taxes.[1] Farm income which had been one of the major drivers of rural demand in the past, however remained under pressure.[2,3]
- Recovery in investment demand is reflected in higher imports of capital goods and FDI inflow in selected industries as well as a modest revival in construction activities.
- The government's role has been largely positive in terms of tax cuts on consumer durables and the cement industry, which supported private demand. Moreover, some foreign-funded public sector construction projects are also supporting economic activity. Lastly, energy supply, particularly thermal electricity generation improved because the government took measures to improve the liquidity situation in the power sector.

An important feature of FY12 growth is that it is not being backed by credit from the banking sector. While low raw material prices for textile and sugar sectors explain the slack in private sector advances to some extent, there are other areas where the price explanation does not hold – such as construction and fixed investment. As for now, foreign aid and investment as well as retained corporate earnings, are driving growth.

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[1] Taxes and duties on automobiles, air conditioners, deep freezers, and beverages were reduced in Budget FY11.

[2] While the final outcome of agri-output would depend on wheat, initial indications are that this improved production is not sufficient to overcome loss of farmers' income due to a sharp fall in commodity prices and escalation in input costs.

[3] According to an ADB study, crop income accounts for 67 percent of the total income in cotton/wheat producing areas in Sindh and 64 percent of the total income in cotton/wheat producing areas in Punjab. Source: Malik, Sohail J. (2005), "Agricultural Growth and Rural Poverty: A Review of the Evidence", Asian Development Bank, Islamabad.

In terms of aggregate supply, major *kharif* crops have performed better than expectation, with estimates of highest ever production of rice and sugarcane, and strong cotton harvest. This has been led by favorable weather conditions, better water availability, and the incentive for increasing cultivated area because of last year's high crop prices. By December 2011, it appears that the major crops will have a strong contribution to GDP growth in FY12.

While production improved in real terms, farm incomes have taken a hit from lower crop prices and higher input costs after the imposition of sales tax. Prices of cotton and sugarcane crop declined this year as a supply glut took shape in both domestic and global markets. Moreover, revenues from the rice crop have also suffered on account of lower Basmati production this year.

The downward pressure on price of agri-based raw material has benefitted the sugar and cotton yarn industries. Furthermore, consumer goods production remained strong, mainly led by food, pharmaceuticals, home electronics, and consumer automobiles. However, overall large scale manufacturing showed decline in Q2-FY12 after posting 3.5 percent YoY growth in Q1-FY12, mainly due to supply-bottlenecks in intermediate and capital goods industries.

Shaped by real sector developments, the export and import baskets also underwent some changes. For instance, while manufactured goods exports declined (mainly led by textiles), agri-based food exports remained strong. Similarly, a decline in agriculture product imports was offset by higher demand for intermediate goods and machinery, particularly in Q2-FY12. Services trade balance also deteriorated in H1-FY12. Overall, net exports had a downward pull on aggregate demand in H1-FY12.

2.2 Agriculture Sector

Most of the major *kharif* crops (cotton, rice, sugarcane) have already been harvested and preliminary estimates show strong performance by these crops.[4] This improved performance is commendable given that farmers faced multiple challenges during the crop season, including floods in the summer, sharp fall in prices of agri produce and increase in input costs.

On a positive note, floods also improved soil moisture. This, together with the improved and timely availability of water, supported the crop yield for sugarcane, rice and cotton. In the case of cotton, the attractive crop prices in the previous

[4] The improved performance by rice and sugarcane is likely to reflect in higher production of fodder which is one of the key inputs for livestock.

season also encouraged farmers particularly in Punjab to increase area under the crop.

The demand of key agri inputs also increased during the *kharif* season (April-September). The total nutrient off-take was higher by 5.8 percent YoY in *kharif* 2011, despite sharp increase in prices during this period; banks' credit to agriculture sector also recovered from last year's dismal performance because of the floods in August 2010. The demand for tractors however remained lower, probably because of higher prices following the imposition of sales tax in March 2011. The fall in tractor sales was also expected as farmers re-prioritized their spending in response to higher prices of fertilizer.[5]

Performance of *kharif* crops

Cotton

According to the Cotton Crop Assessment Committee (CCAC), the estimated crop size is 12.6 million bales, against the target of 12.8 million bales, and last year's production of 11.6 million bales. As evident from **Table 2.1**, gains in the Punjab more than offset the flood-related losses in Sindh.

Table 2.1 Cotton Crop Production

million bales of 170 kg

	2011	2010	Change
Sindh	2.3	3.5	-1.2
Punjab	10.1	7.9	2.3
Total	**12.6**	**11.4**	**1.2**

Source: Cotton Crop Assessment Committee

The key concern for farmers has been the sharp fall in domestic price of seed cotton. Following the global trend, cotton phutti prices fell from Rs 5,767/ 40 kg in March 2011(peak level) to Rs 2,050/40 kg in December 2011.[6,7] Moreover, given the persistent weakness in developed economies, it would be difficult for cotton prices to post an upward trend in the near future.[8]

[5] The government reduced General Sales Tax (GST) on tractors from 16 percent to 5 percent in December 2011.

[6] Source: Agri-Business Field report by Zarai Taraqiati Bank Limited.

[7] In the international market, the Cotlook -A index, that averaged US cents 506.3/kg in March 2011, fell to US cents 210.1 in December 2011.

[8] According to US Department of Agriculture (USDA), 2011-12 global cotton production is expected to reach record level of 123.4 million bales, showing an increase of 7 percent over the last year. Cotton consumption on the other hand is estimated to fall by 3.4 percent to 111.3 million bales.

Rice

The production estimates for rice vary in the range of 6.2 – 7.2 million tons, surrounding this year's official target of 6.6 million MT and significantly above the 4.8 million tons produced last year. The information collected from the provinces suggests a crop size of 6.2 million tons, whereas US Department of Agriculture (USDA) projects Pakistan's rice production at 6.55 million tons. Estimates provided by Suparco are on the higher side at 7.2 million tons (**Table 2.2**).

Table 2.2: Rice Production

area in '000 hectare; production in 000 tons; yield in Kg/hectare

	2011	2010	% growth
Sindh			
Area	636	361	76.0
Production	2,350	1,230	91.0
Yield	3,695	3,406	8.5
Punjab			
Area	1,733	1,767	-1.9
Production	3,308	3,384	-2.3
Yield	1,908	1,915	-0.4
Balochistan			
Area	171	191	-10.5
Production	529	131	304.7
Yield	3,089	683	352.2
Pakistan[1]			
Area	2,540	2,319	9.5
Production	6,186	4,745	30.4
Yield	2,435	2,046	19.0
Pakistan[2]			
Area	3,095	2,365	
Production	7,182	4,823	

Source: [1] Provincial Crop Reporting Centers, [2] Suparco

It may be noted that the rice crop of 2010-11 was damaged due to the floods in August 2010. During the current season, though the area and production both declined marginally in the Punjab, the recovery in Sindh was impressive. Both the area under cultivation and the yield increased during this season despite some damages in Badin and Tando Muhammad Khan districts in June 2011. Major recovery was witnessed in Jacobabad, Shikarpure, Kashmore, Qambar and Ghotki districts.

Unfortunately, the recovery in rice production is concentrated in non-basmati varieties. The production of basmati rice, which fetches higher export value compared to other varieties, has actually declined compared to previous year. The international market for non-basmati varieties is already under pressure as world supplies outstripped demand, and India lifted its ban on non-basmati rice exports. More importantly, the downtrend in prices may continue due to comfortable global supplies.[9]

[9] According to USDA global production is expected to reach record level of 461.6 million tons – 2.0 percent higher than the previous year.

Sugarcane

The crop estimates for 2011-12 vary considerably, ranging from 56.2 – 69.9 million tons. This year's official crop target was 57.6 million tons. Estimate of 56.2 million tons provided by provincial crop reporting centers is closer to the projection of 58 million tons by the US Department of Agriculture. On the extreme side, the Suparco in its recent report has revised its estimate from 55.3 million tons to 69.9 million tons (**Table 2.3**).

While the sugarcane production suffered in Sindh due to floods, the crop in Punjab showed remarkable growth. Sugarcane growers are facing several problems. Not only that the price of their produce fell,[10] the crushing season also got delayed. It may be noted that farmers do not receive any compensation for this delay in their payments. In fact, they incur additional costs as their trolleys are stuck for extended period before offloading cane at the mills. To avoid these costs, growers prefer to sell their produce to middlemen at prices lower than the minimum support price set by provincial governments.

Table 2.3: Sugarcane Production

area in '000 hectare; production in million tons; yield in Kg/hector

	2011	2010	% growth
Sindh			
Area	189.7	226.5	-16.2
Production	9.1	13.8	-34.0
Yield	47,910	60,792	-21.2
Punjab			
Area	754.7	672.2	12.3
Production	42.8	37.5	14.1
Yield	56,711	55,761	1.6
KP			
Area	94.4	88.4	6.7
Production	4.3	4.0	7.3
Yield	45,835	45,589	0.5
Pakistan[1]			
Area	1,038.80	987	5.2
Production	56.2	55.3	1.6
Yield	54,091	56,004	-3.4
Pakistan[2]			
Area	1,278.70	987	29.6
Production	69.9	55.3	26.4

Source: [1] Provincial Crop Reporting Centers [2] Suparco

The government has already procured 378,000 tons of sugar from mills, so that the mills can make timely payment to growers. Since cane harvesting continues till March, it is expected that the government efforts would allow farmers to receive a fair price for their produce.

[10] The better production has resulted in lower price for sugarcane in the Punjab compared to that in Sindh.

Rabi crop: Wheat

The 2012 target for wheat is 25 million tons. For this crop, not only the sowing season stretched till December 2011 (in some areas of Sindh and Punjab) due to inordinate delays in sugarcane crushing, the sowing area came out marginally lower than the last year figure of 8.9 million hectares. This decline in area under cultivation (despite an increase in support price to Rs 1,050 from Rs 950 per 40 kg) was due to water availability issues and delayed rains in *barani* areas. At the same time, some of the agri land in Badin and Mirpurkhas still remains inundated following floods last year.

2.3 Industry

Half-way into FY12, the industrial sector has been showing some improvement over the previous year (**Table 2.4**). However, this performance must be qualified, as part of the growth in Q1-FY12 reflects the effect of a low base.[11] As this base effect faded out, large-scale manufacturing (with a share of 52.3 percent in overall industry) posted decline in October and November 2011, before finally picking up in December.

Table 2.4: Mid-year Industry Performance Review
percent YoY growth

	% share[1]		FY11		FY12	
	GDP	Ind.	H1	FY	H1	FY[t]
Industry	**24.8**	**100**	**..**	**-0.1**	**..**	**3.1**
LSM	13.0	52.3	-2.0	-0.02	0.8	2.0
Mining	2.7	10.9	-1.5	-1.6	2.3	1.0
Construction	2.4	9.8	..	0.8	..	2.5
Electricity, gas, & water distribution	2.0	8.1	..	-21.1	..	1.0
of which						
Electricity	..	..	-12.5	-9.9	22.5	..

FY= full year; t= target. [1]5-year avg. Growth in LSM & mining based on respective indices; GVA growth for overall industry & construction.
Source: Pakistan Bureau of Statistics.

Nevertheless, there are some reasons to be optimistic:

1. Private consumption demand has gained traction in H1-FY12, as reflected in higher production of consumer goods. Demand has improved on the back of growth in workers' remittances,[12] stability in corporate incomes, and renewed interest in auto financing by the banking sector.[13] Moreover, tax cuts on key consumer products were also pivotal in strengthening consumption demand.

[11] Floods of August 2010 particularly affected natural gas production, power generation, petroleum refining, construction, automobiles, and fertilizer demand.
[12] Workers' remittances during the past five years average around 6 percent of private consumption expenditure.
[13] Automobile loan disbursements of Rs 34.1 billion were made in H1-FY12 compared to Rs 24.3 billion in H1-FY11.

2. Pick up in construction activity, particularly initiation of public sector construction projects, further supported economic activity. Foreign assistance has played a key role in this regard.[14]
3. There are some indications that investment demand is recovering. For example, although overall foreign direct investment is showing a slowdown, investment in some industries – particularly construction, chemical and beverages – has increased in FY12. Similarly, imports of capital goods have also increased (**Chapter 5**).

It is important to note here that the growth in output is not being reflected in bank financing, which has remained fairly stagnant at last year's levels. This is partly explained by lower raw material prices – particularly in the textile and sugar sectors. In other areas, such as construction and fixed investment, where prices do not explain the low credit demand, foreign sources of funding (FDI and project loans), public spending, and stable corporate earnings are driving growth.

Energy recovery and reforms

Energy sector output improved in H1-FY12 led by growth in natural gas production and higher thermal power generation (which crossed the 6 Gwh mark for the first time in Q2-FY12 since August 2007 – **Table 2.5**). While a part of this increase is simply a recovery from last year's damages from floods, this progress should translate into a positive contribution to real GDP for FY12.[15]

Table 2.5: Energy Availability During H1

	Production in 000 tons of oil equivalent			YoY growth	
	FY10	**FY11**	**FY12**	**FY11**	**FY12**
Natural gas production	4,117	3,602	4,412	-12.5	22.5
Electricity generation	15,784	16,043	16,560	1.6	3.2
Coal mining	995	887	724	-10.9	-18.3
Crude oil processed	5,051	4,709	4,641	-6.8	-1.4
POL product imports	5,937	5,989	6,853	0.9	14.4
Total	**31,885**	**31,229**	**33,191**	**-2.1**	**6.3**

Source: Pakistan Bureau of Statistics, SBP calculations.

Nevertheless, this progress seemed insufficient in the backdrop of increasing demand. Specifically, it appears that with the pickup in manufacturing sector,

[14] Foreign project loans grew by 69.8 percent YoY in H1-FY12 compared to a decline of 14.5 percent YoY in H1-FY11. Major projects for which foreign assistance was received this year include: Chashma Nuclear Power Plant phase III and IV (US$111 million); Karakoram Highway realignment (US$100 million); flood emergency reconstruction funds of US$71 million; Islamabad safe city project (US$68.6 million); highway rehabilitation project (US$41.8 million); Sindh water sector project (US$34.9 million); Neelum-Jehlum hydropower project (US$33.5 million); and KPK road development (US$24.5 million).

[15] During FY11, electricity, gas and water distribution posted a decline of 21.1 percent in value addition.

energy demand grew at a faster pace than supply. As a result, despite higher energy availability, power and natural gas shortages continued, and even increased in some cases. For example, CNG and industrial gas holidays were increased compared to the same period in FY11.

The allocation of natural gas amongst competing users was a key point of contention due to growing demand. In this regard, the government took several decisions this year:

1. After a considerable delay, the government finally decided to discourage CNG usage by raising tariffs, increasing weekly fuel holidays, and banning new CNG vehicles.
2. For industrial and power sectors, an additional surcharge (Gas Infrastructure Development Cess) was levied.

Although the government is making efforts to augment gas supplies, plugging leakages and theft-related losses is equally important. Line losses amount to nearly 9 percent of total gas input, compared to the international benchmark of 1-2 percent.[16]

In the power sector, the government arranged debt swaps with commercial banks to address the circular debt involving power companies and procurement agencies. This arrangement has provided only temporary relief to power producers, as the needed tariff adjustments were not passed on to end-consumers throughout Jul-Dec FY12.[17]

Large-scale manufacturing

Large-scale manufacturing growth decelerated during the quarter, from 2.8 percent YoY in Q1-FY12 to negative 1.0 percent in Q2-FY12. It was anticipated that the drivers of Q1 growth – export demand and favorable post-flood base effect – would not help.[18] However, further deterioration occurred on account of continuing gas shortages during the peak winter months, which constrained production in fertilizer, cotton weaving, and steel re-rolling. As a result, only 46 percent of LSM subsectors showed positive YoY growth in Q2-FY12 compared to 57 percent in Q1. On a cumulative basis, H1-FY12 growth stands at 0.8 percent, which is below this year's growth target of 2.0 percent.

[16] World Bank, "Natural Gas Efficiency Project, Report No. AB6124", September 9, 2011.
[17] Thermal power constitutes around two-thirds of total electricity generation in the country. Thermal generation increased by 25 percent YoY in Jul-Nov-FY12, compared to 15.1 percent decline last year.
[18] See LSM section in the First Quarterly Report on The State of Pakistan's Economy FY12.

But a detailed look at LSM sectors shows the decline was limited to capital and intermediate industries, whereas consumer goods remained strong (**Table 2.6**). In fact, the latter had a positive contribution of 2.4 percentage points in Q2-FY12 growth; which was mainly led by food, pharmaceuticals, home electronics, and consumer automobiles. Growth has been driven by fiscal support, automobile financing, improved agriculture output, and higher workers' remittances. [19]

Table 2.6: Economic Category-wise LSM Production
percent YoY growth

Category	Wt	Q1		Q2	
		FY11	FY12	FY11	FY12
Consumer goods	31.9	2.8	6.7	2.5	5.0
Durables	5.2	14.1	4.8	5.8	4.6
Non-durables	26.7	0.8	7.1	1.9	5.1
Capital goods	2.4	4.2	-33.3	-5.7	-17.6
Intermediate goods	36.1	-9.5	1.3	-2.0	-5.8
Overall LSM	**70.3**	**-3.9**	**2.8**	**-0.1**	**-1.0**

Source: Pakistan Bureau of Statistics, SBP calculations

Interestingly, contrary to earlier expectations that growth in consumer durables would fade after the post-Budget buying rush, it seems that demand is holding on. In fact, in the case of cars, we believe production could have been even higher had it not been for supply side constraints.[20]

Moreover, strong performance of the agriculture sector is also benefitting resource-based industries. For example, cotton yarn production growth in Jul-Nov FY12 is the highest in four years, mainly driven by improved cotton availability, stable margins, and recent capacity enhancements.[21,22] Sugar production, on the other hand, is expected to surpass earlier projections on the back of upward revisions of crop estimates. Growth in sugar production in Nov-Dec 2011 stood at 35.8 percent YoY. Naturally, with growth in consumer products, some pick-up in intermediate and capital goods is also expected. This demand is being reflected in higher imports this year.

However, this is not translating into domestic production due to a number of reasons. In the case of capital goods, the presence of investment demand can be

[19] Taxes and duties on automobiles, air conditioners, and deep freezers were reduced in the Budget. For details, see First Quarterly Report on The State of Pakistan's Economy-FY12.
[20] Production was constrained by: (1) shortages of auto parts resulting from floods in Thailand strongly affected the production of one manufacturer, and (2) production of one car model was being phased out. This effect was offset to some extent by purchases made by the Punjab Government under the yellow cab employment scheme.
[21] Spinning machinery of approximately Rs 37 billion was imported during the period FY09-FY11.
[22] The spinning sector is relatively impervious to energy shortages. Most spinning firms are financially strong and can afford to run on back-up energy supplies.

gauged from the growing FDI inflows in selected industries as well as higher imports of capital goods. But domestic production is still low on a number of accounts: (1) most importantly, it is believed that a large proportion of imports do not have local substitutes – this is true for electrical apparatus and power generating machinery; (2) tractor production declined as demand fell after imposition of a 16 percent sales tax in Budget FY12; and (3) demand for local commercial vehicles is being met by cheaper imports (**Table 2.7**).

Table 2.7: Capital Goods Production and Imports in H1

Industry	Share in index	Production		Imports[1]	
		FY11	FY12	FY11	FY12
Electrical apparatus	41.8	0.2	-6.2	25.1	-11.8
Commercial vehicles	29.9	-0.7	-10.0	-18.7	101.6
Agricultural machinery	21.8	-3.5	-51.8	-33.4	42.6
Power gen. machinery	3.7	-18.7	-65.8	-32.5	12.4
Heavy machinery	2.8	24.4	26.6	..	..
Total	**100.0**	**-0.9**	**-24.6**	**1.7**	**3.8**

[1.] Value in US dollars.

Source: Pakistan Bureau of Statistics

Demand for intermediate goods is reflecting in higher imports of petroleum products, synthetic yarn, rubber products, and plastic material. However, production declined mainly due to supply-side issues: for example, circular debt in POL; and gas shortages to fertilizer, textile and steel, among other industries.[23] This is particularly problematic since the total energy supply in Pakistan actually increased in FY12. In this context, policy measures outlined in the National Industrial Policy of 2011 for reducing dependence on imported inputs and strengthening domestic supply chains, are significant and need to be enacted (**Box 2.1**).

Box 2.1: Rethinking Industrial Policy

The *National Industrial Policy 2011 Implementation Framework*[24] is mainly focused on four broad areas: (1) reducing dependence on imported inputs (specifically, chemical, steel, and mining); (2) promoting knowledge-intensive industries (electronics, machinery, pharmaceutical); (3) performance-based import protection (mainly automobiles and electronics) and value-addition based export subsidies; and (4) removing supply-side bottlenecks such as energy shortages and deficient transport infrastructure. Under these policies, the manufacturing sector's growth rate is projected at 8 percent per year for the next decade.

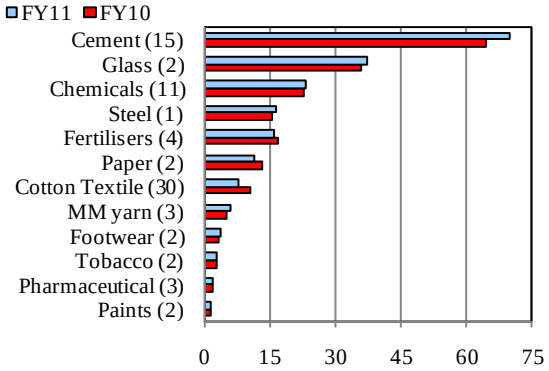
However, it might become very difficult to realize this growth target unless two major concerns are addressed: (1) indiscriminate energy availability, and (2) mining sector development.

[23] Such as energy losses faced by glass and steel sector due to gas and electricity load shedding, high cement prices, high transport cost and law and order issues in timber rich areas, etc. For detailed information see Annual Report on The State of Pakistan's Economy FY11.

[24] Available online: http://www.moip.gov.pk/Industrial_Policy_Implementation_6%200_May18_2011.pdf

1. Mining development. A major focus of the policy is on mining (mainly iron ore, copper, and chromites) in order to reduce import dependence of downstream manufacturers of steel, electronics, and chemicals. First a market for these raw materials will be created by establishing user industries, and it is expected that investment in mineral development will naturally follow.

Figure 2.1.1: Energy to Manufacturing Cost Ratio (percent)



Source: Notes to financial accounts of listed companies. For companies following CY , reports for year 2010 or H1-2011 have been consulted, as per data availability .

Although this mechanism seems reasonable, it must also be noted that low demand is not the sole reason for lack of this sector's development. In fact, it is the incentive structure which needs to be revised. The last National Mineral Policy issued in 1995 does not offer a competitive tax and duty structure (compared to other resource rich countries) and as a result, did not attract meaningful investment.[25] Poor law and order in resource-rich areas also adds to the country risk.

Despite these drawbacks, the policy has not been revised to date. This is because under the Constitution, mining (other than petroleum and natural gas) is a provincial subject. Therefore, in order to align mining sector's development with manufacturing sector's needs, provincial polices and development budgets must also have similar priorities.

2. Energy availability. Another key policy outlined in the Framework is that industries will be given preference in terms of both energy supply and tariffs over domestic consumers.[26] This not only seems impractical, given the current energy supply constraints, but also at odds with the government's current energy policies (industrial power supply has been compromised to allocate more gas and electricity for domestic users).

A more practical approach would be to discriminate energy supply to industry based on the marginal economic benefit of an additional energy unit. This can be gauged by measuring the energy-intensity of different industries against its direct and indirect employment generation capacity, foreign exchange earnings (or savings), tax compliance, and linkages with the rest of the industry (**Figure 2.1.1**).

Moreover, concrete steps are also needed for improving energy efficiency and investment in renewable energy by the industry. In this regard, it is encouraging that the government is already taking some measures.[27]

[25] Peter van der Veen (2003), World Bank, Mining Department, "Legal/Fiscal Framework to Attract Investments: Where does Pakistan stand?" Mineral Sector Development Workshop, Islamabad, December 15-16.
[26] Pages 6-7 of the National Industrial Policy 2011 Implementation Framework.
[27] In May 2011, renewable energy use was exempted from sales tax. The ADB has also extended a US$200 million Guarantee Facility for the Government of Pakistan for the period April 2011-March

Similarly, despite higher demand for building materials, steel, glass, wood, and paints continued to post declining production. High inflation in building material prices also persisted, which constrained the construction industry's growth. Encouragingly, the Competition Commission of Pakistan is looking into the reasons for the consistently high cement prices. The steel sector's chronic problems of raw material shortages and high production costs, also need to be addressed (**Special Section 2.1**).

Table 2.8: Construction Indicators in H1
percent YoY growth

	FY11	FY12
Construction machinery import[1]	-22.5	105.0
Cement sales	-8.3	12.3
Steel sale (PSM pig iron)-Jul-Nov	-38.2	-54.0
Building materials production	-8.3	-6.6
FDI in construction	-53.7	41.6
Credit to construction[2]	4.5	-4.4
Residential	8.1	-4.6
Infrastructure	10.2	-1.2
Housing finance	-6.2	-7.3
Building material prices	7.2	13.2

[1]SBP data; HS-codes: 8474.3120-90 (concrete mixers); 8701.2000-2090 (road tractors); and 8705.1000 (crane lorries). [2]Growth over June.
Source: State Bank of Pakistan, Pakistan Steel Mills, All Pakistan Cement Manufacturers' Association, and Pakistan Bureau of Statistics.

Modest revival in construction

Following a slowdown in FY11, the construction sector began reviving in FY12 (**Table 2.8**), as work on public projects accelerated and sentiments improved in the real estate sector.

Two main factors have led to improved expectations for real estate. Firstly, the law and order and administrative situation in major cities improved. Secondly, there was high growth in home remittances, of which a certain proportion is believed to be invested in property.

Not surprisingly, private construction is concentrated in the residential sector rather than commercial property, as the residential sector is apparently a safer bet at present. According to a number of real estate agents, majority of their clients have been looking for residential property, compared to shops or offices. This reflects a subdued commercial environment, but does not detract from the personal needs of individuals.

2012 to help mobilize commercial loans for project financing. Following that, a local company finalized a 49.5 MW wind-powered project in June 2011. In January 2012, a Chinese company announced that it will invest US$15 billion during the next five years for a 10,000 MW wind-powered project.

However, for builders, the excess demand for housing is challenging as a large majority of customers are seeking property for rent, rather than purchase.[28] Therefore, returns on investment are slower, which limits builders' liquidity to develop new projects. Unfortunately, bank financing for housing projects is hard to obtain because banks are not willing to take perceived commercial risks. Oddly, while the stock market could be an excellent source of this type of financing, only three of an estimated 600 real estate developers and builders, are listed on the stock exchange.[29]

[28] According to real estate agents, customer profiles have changed over the past few years. Most home-seekers are now younger and have small net worth. To put this in perspective, according to the Pakistan Social and Living Standards Measurement Survey of 2010-11, only 16.7 percent of urban households were living in rented homes in FY11.

[29] The three listed companies are AKD Securities Ltd., Pace (Pak) Ltd., and Javedan Construction. The total number of builders and developers is estimated from the number of members of All Pakistan Builders' Association (ABAD). ABAD has 575 members in April 2011.

Special Section 2.1: What Ails Pakistan's Steel Industry?

Over 96 percent of growth in world steel production during the last decade was contributed by Asia, with China and India virtually explaining the entire expansion.[30] In sharp contrast, Pakistan's crude steel production declined from 1.1 million MT in FY01 to 0.4 million MT in FY11.

Table 2.1.1: Production & Import of Finished Steel
million MT/annum

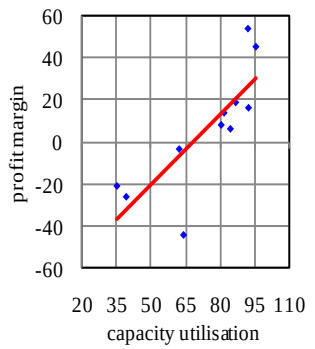
	PSM	Pvt. Sector	Imports	Total
Actual[1]	0.5	2.2	1.9	4.6
Full capacity	1.1	4.5[2]	0.5-1[3]	6-7

[1] Average of FY09-FY11.[2] Estimated. [3] Imports of products for which sufficient domestic capacity is not present will continue.
Source: Pakistan Steel Mills, State Bank of Pakistan estimates based on Pakistan Bureau of Statistics data.

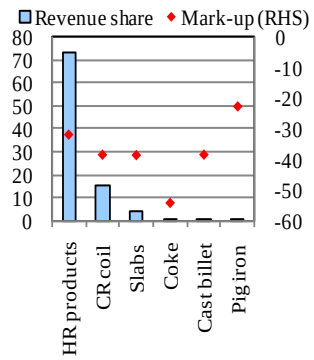
As domestic consumption continues to grow, the demand-supply gap is widening. A conservative estimate puts demand for finished iron and steel products (hot-rolled (HR), cold-rolled (CR), and galvanized coils and sheets; and long rolled products, such as bars, rods, angles, and sections), at over 6 million MT/annum.[31] Pakistan imported 3.2 million MT of iron and steel in FY11 amounting close to US$2 billion; roughly 5 percent of the annual import bill.

Interestingly, finished steel imports are price competitive despite high import duties (from 10 to 35 percent), 16 percent sales tax, and 3 percent withholding tax. This is distressing given Pakistan's 1.4 billion MT unexploited proven iron ore

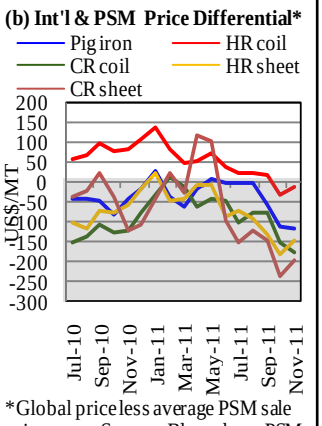
Figure 2.2.1: PSM Profits, Mark-up, and Price Competitiveness



Source: PSM



Source: PSM



*Global price less average PSM sale price. Source: Bloomberg, PSM.

[30] World steel production grew by 66.5 percent during the last decade. Asia's contribution was 64.5 percentage points, and China and India contributed 55.8 and 4.8 percentage points, respectively. Source: Steel Statistical Yearbook 2011, World Steel Association.
[31] The National Industrial Policy 2011 puts demand estimate at 7 million MT/annum.

reserves[32] as well as sufficient domestic capacity (roughly 4.5 million MT). With full capacity utilization, imports of finished goods can drop to as low as 0.1 million MT a year (**Table 2.1.1**). In dollar terms, the net saving could exceed US$1.0 billion per year.

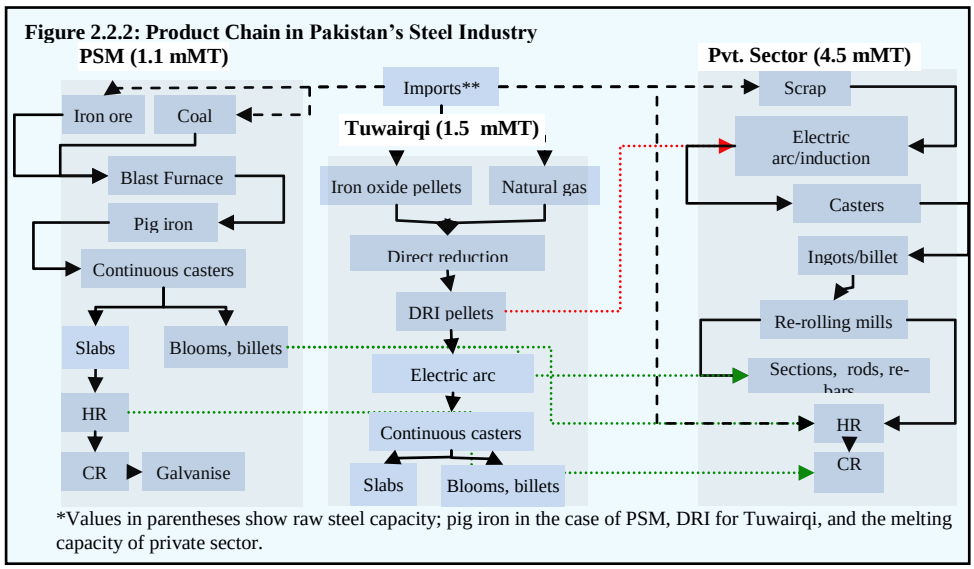
A number of factors are responsible for the present state of affairs: (1) the ailing Pakistan Steel Mills; (2) insufficient investment; and (3) loopholes in the tax system.

1. Low capacity utilization ailing Pakistan Steel Mills

Pakistan Steel Mills is the sole processor of iron ore in Pakistan and constitutes a little less than 20 percent of the country's capacity for finished steel. In better times, the mills supplied raw material (billets and HR sheets) to the private sector as well. But since FY09 (when PSM reported huge loss), crude steel production has been going downhill, dropping from 80 percent of installed capacity in FY08 to only 23.8 percent in Jul-Nov FY12. The PSM has since been strapped for liquidity, unable to consistently fund raw material imports. Low crude production has affected production of finished steel by the PSM and the numerous downstream private mills relying on PSM, which now have to import raw material.

To date, the PSM has been unable to emerge out of the low funds-low capacity

Figure 2.2.2: Product Chain in Pakistan's Steel Industry



*Values in parentheses show raw steel capacity; pig iron in the case of PSM, DRI for Tuwairqi, and the melting capacity of private sector.

[32] Engineering Development Board, Online: http://www.engineeringpakistan.com/Steel/workshop/ironoredeposts.htm

cycle. Low capacity utilization lowered scale economies because the PSM is a complex of interconnected mills which feed raw material and energy into each other. When functioning at a reasonable capacity, the excess heat generated during coke burning (for making raw steel) is used to generate electricity. This electricity, being low in voltage, is then swapped with the Karachi Electric Supply Company (KESC) for high-voltage current to runs the rolling mills. Since the steel is already molten while entering rolling mills, energy costs are conserved. (**Figure 2.2.2, panel 1**). Below efficient capacity, there is insufficient coking heat to run the captive power plant (CPP), and the mill becomes an electricity buyer, another burden on its weak finances. Due to this, PSM currently has hugely negative margins on all its products (**Figure 2.2.1, panel 2**).[33]

In order to circumvent the issue of low scale economies and lack of funds to finance imports, PSM has begun captive mining of local ore, which is 30 percent cheaper than the global price. However, domestic mining entails its own problems: supply is intermittent due to poor law and order in mining areas; the absence of a functional railway lines means that transportation has to be made via trucks, which are much costlier; lastly, because of nonexistence of beneficiation plants (to purify iron ore), transport cost has to be borne for heavy ore rocks, with less than 45 percent iron content.

But more importantly, the current local iron ore supply is sufficient to produce only 0.2 million MT steel a year. This means that at full capacity, PSM must import at least 1.5 million MT of iron ore, which amounts to import burden of approximately US$0.2 billion annually (at FY11 price).[34] The PSM also imports coal for coking. Coking needs superior quality coal and is therefore this component is not substitutable locally. At full capacity, the PSM requires 0.85 million MT of coal per year (US$ 0.1 billion at FY11 prices).

In short, in order to break even, the PSM must have sufficient funds to be able to run at efficient capacity. Otherwise, producing at low capacity will only lead to snowballing losses.

2. Low scale economies

One of the reasons why domestic steel prices are high compared to imports is the small scale of production and lack of integration. Large and integrated units have low units costs because they are more energy efficient. Pakistan's steel industry is

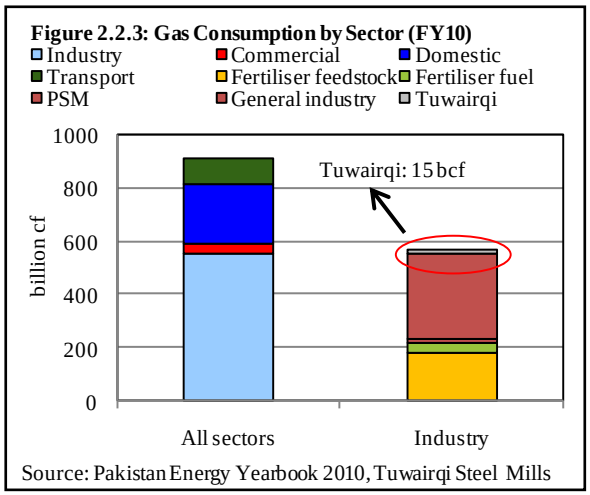
[33] PSM prices are slightly higher than the post-tariff landed prices of imports.

[34] Pakistani iron ore has an Fe (for Ferrous, i.e. iron) content of maximum 45 percent. The global standard is 62 percent. The estimate is based on FY11 ore mining number adjusted for Fe content.

highly fragmented, comprising of around 100 melting furnaces and 300 rolling mills. The average melting unit has an annual capacity ranging from 10,000 to 70,000 MT. Rolling mills are even smaller. PSM is the only truly integrated mill, but even its capacity is believed to be deficient scale economies.[35]

Over the past half decade, some consolidation took place between the private furnaces and re-rolling factories, which improved energy efficiency to some extent. Nevertheless, the capacity of even the largest private mills still remains below 0.5 million MT.

After PSM, there has been only one truly large-scale investment in Pakistan's steel industry: a 1.5 million MT steel complex of Tuwairqi Steel Mill (TSM). Once operational, TSM will reduce the country's dependence on imported raw material to a great extent by supplying raw material to the rolling industry. Secondly, it will utilize indigenous iron ore to a greater extent. The mill is expected to come online this year.



The TSM was initially planned to start functioning in 2010, but commissioning was repeatedly delayed due to uncertainty over utility supplies. Specifically, the TSM will be a natural gas-based facility, a resource which is already in short supply. However, there is a case for making room for TSM gas: (1) TSM will be energy efficient – for example, to produce the same quantity of steel, it will consume lesser quantity of natural gas. (2) While other industries can use alternate fuels, TSM will be using natural gas a feedstock, which is not substitutable (**Figure 2.2.3**).

[35] At the time of commissioning, PSM's capacity was planned to be expanded to 3.0 million MT. Source: "Pre-feasibility Study for Steel and Related Products", May 2006. Employment and Research Section, Planning and Development Division, Government of Pakistan.

3. Tax machinery loopholes

Allegedly, there is large scale tax evasion in this sector which deprives documented players, such as the PSM,[36] of a level playing field. These are the key issues: (1) Local scrap sales are undocumented and therefore cannot be taxed. Because of this limitation, private melters and re-rollers pay sales tax under a fixed formula based on electricity consumption – for furnaces, 800 electricity units are estimated to produce 1.0 MT steel; for re-rollers, the electricity consumption is taken at one unit per MT. However, a large number of re-rolling mills in the country are running on natural gas, for which there is no accounting for either production or tax payment. (2) Private importers allegedly under-invoice on a large scale, and also mis-state product quality to take advantage of the highly graded import tariffs.

[36] 16 percent sales tax is paid on both locally mined and imported iron ore; local mining also entails 3.5 percent withholding tax, while the same is 3.0 percent for imported ore. The sales tax on coal is 17 percent at import stage, in addition to 3.0 percent withholding tax. Final products are taxed as per value addition. In Jul-Nov FY12 alone, working at a monthly average capacity of 22 percent only, PSM paid Rs 1.2 billion to the exchequer.