STEEL
Sector Study

September 2022

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STEEL

A Brief Overview

Steel Industry plays a pivotal role in the progress of an economy. With its permanent nature and recycling capabilities, the demand for steel continues to grow in significant industries such as infrastructure, construction, automotive, appliances, manufacturing and others.

What is Steel made of?

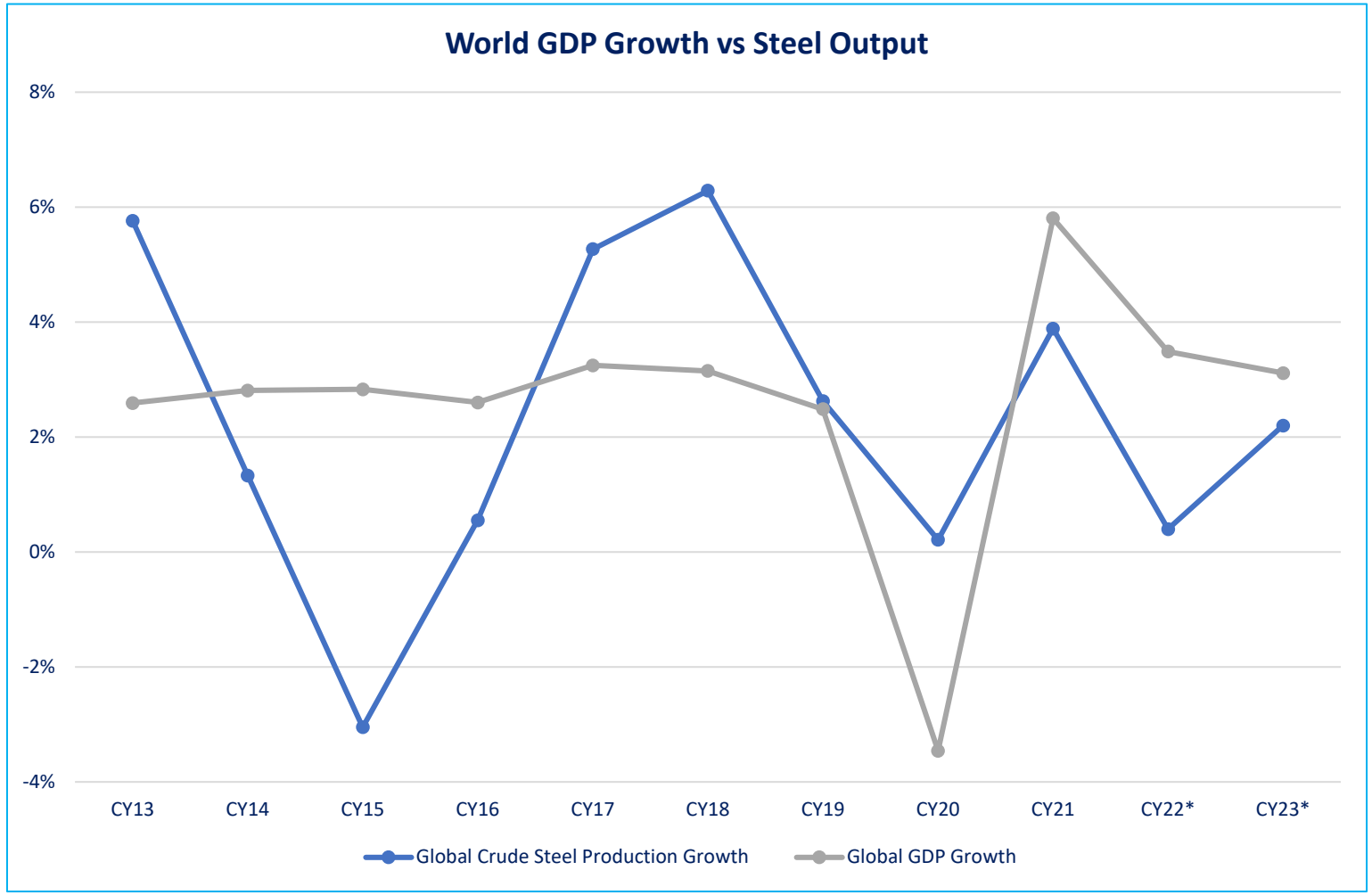
Steel is an alloy of iron and carbon. The carbon content ranges up to 2% (with higher carbon content, the material is defined as cast/pig iron).

Major Raw Materials used in steel production are **Iron Ore** (a mineral substance which is heated to yield metallic iron), **Coal** (to produce Carbon) and **Steel Scrap** (due to its recyclable nature).

The primary **difference between iron and steel is** that the former **is** a metal, whereas the latter **is** an alloy. **Iron** is a metal element that occurs naturally on Earth. In comparison, **steel is** a man-made alloy that's made by mixing **iron** and carbon together.

Global Overview

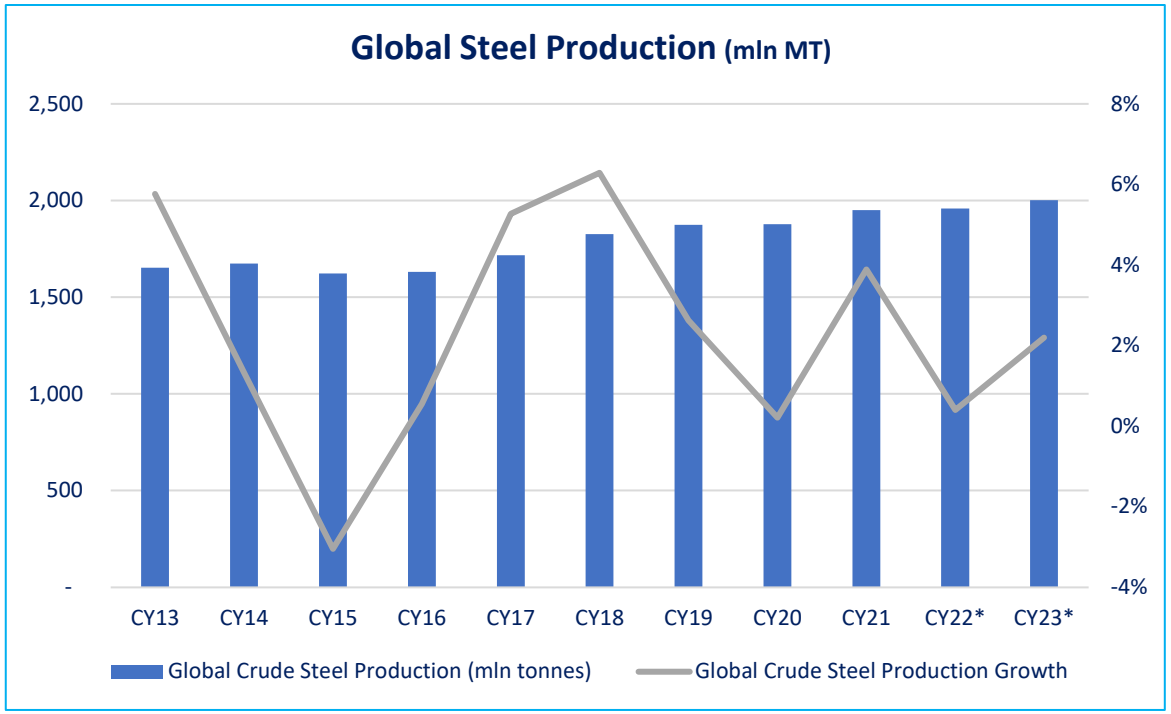
- World GDP and Steel Industry have a direct correlation.
- In CY21, the global steel production growth rebounded at ~4% YoY; close to its 5-year average growth rate.
- However, given the prevailing supply chain disruptions, conflict in Eastern Europe, commodity price spirals and ensuing inflation around the globe, central banks are being forced to pursue contractionary policies; culmination of which is expected to weigh negatively on the global economic growth.
- Given the global macroeconomic imbalances, growth in steel production is expected to stand muted at ~0.4% YoY in CY22.

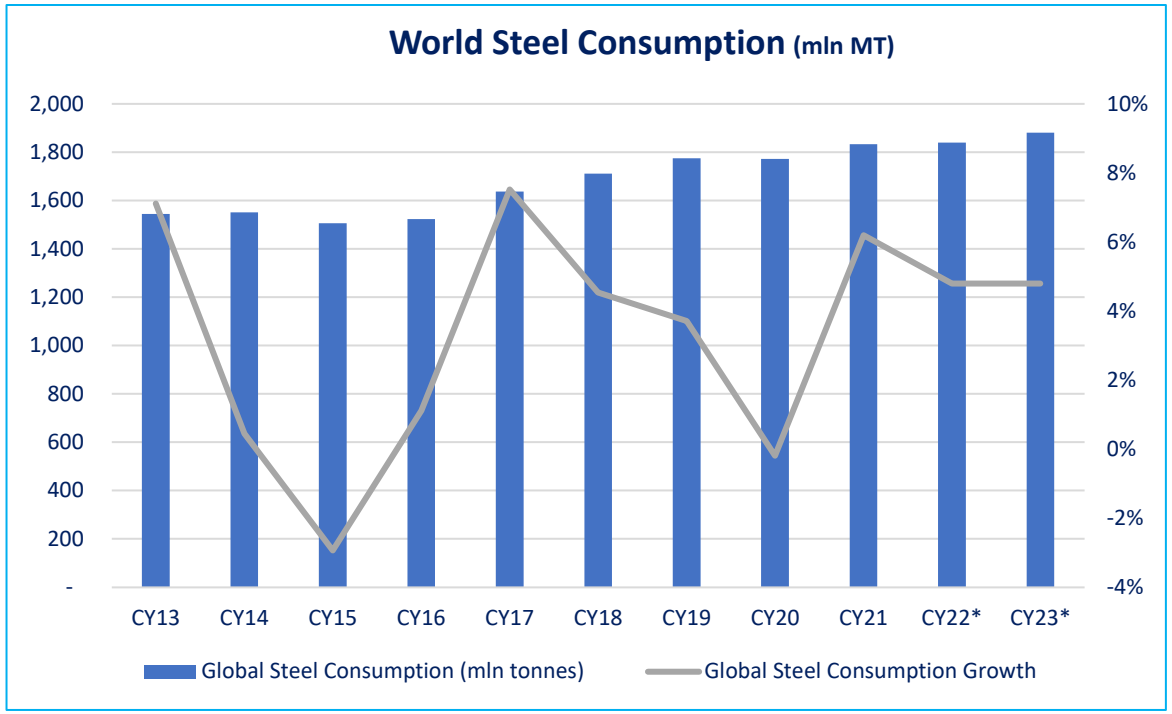


Source: Deloitte, World Bank & IMF, World Steel Association

Production & Consumption | Global

- In CY21, global steel production stood at ~1,951mln MTs, growing by ~3.9% YoY and ~4.1% above pre-COVID levels; although China reduced its steel production by ~3.0% YoY (CY20: ~7.0% growth YoY) to meet its carbon emission goal, but still held the highest share of ~52.9% (CY20: 56.7%) in global steel production.
- Major contribution towards global production growth was made by India, Japan and USA as they held ~6.1% (CY20: ~5.3%), ~4.9% (CY20: ~4.4%) and ~4.4% (CY20: ~3.9%) shares in global production and rebounded at ~17.8% YoY (CY20: ~-10% YoY), ~15.7% YoY (CY20: ~-16.2% YoY) and ~18.0% YoY (CY20: ~-17.2% YoY) respectively.



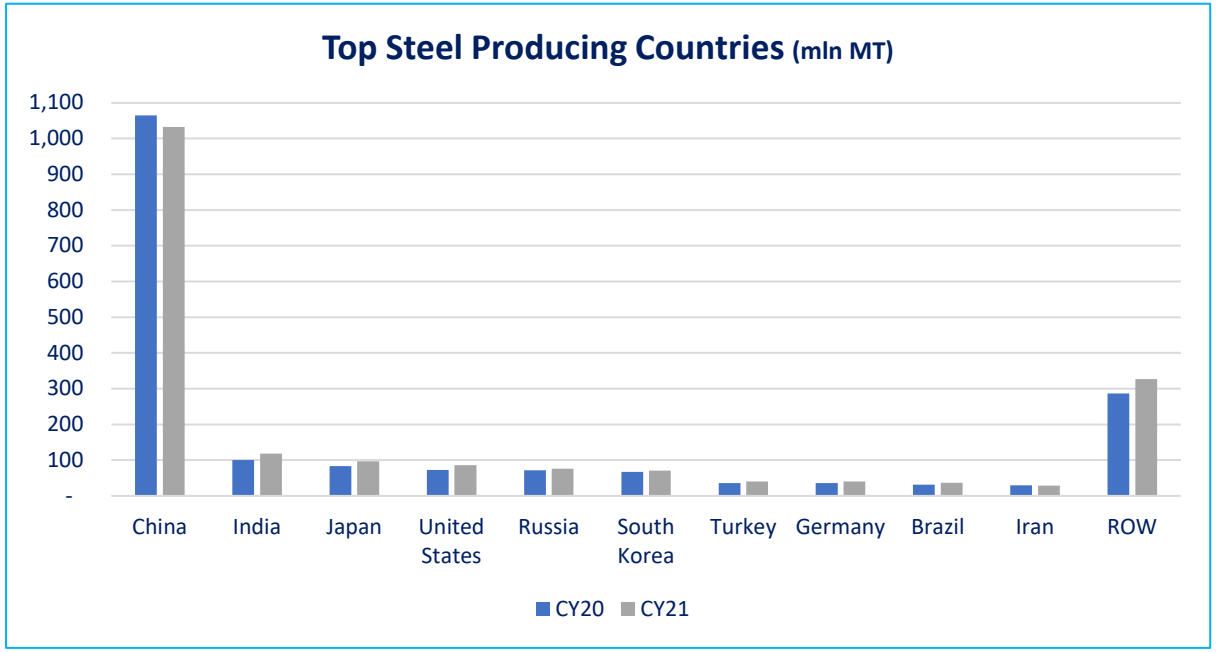


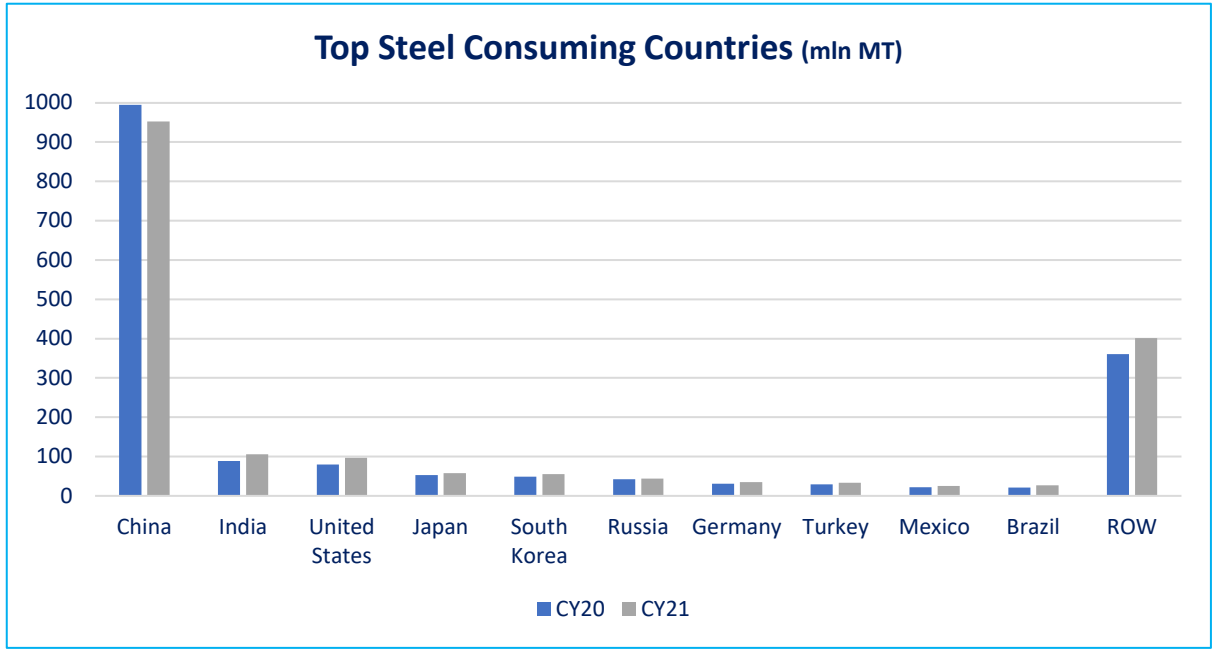
*Estimated and Forecasted

Source: World Steel Association

Production & Consumption | Top Countries

- Global steel consumption in CY21 stood at ~1,834mln MT, after growing ~3.5% YoY (CY20: ~-0.2%) and ~3.3% above pre-COVID levels; much like the production dynamics, China represented ~51.9% (CY20: ~56.2%) share in global consumption, as its consumption volumes dropped by ~4.3% YoY (CY20: ~9.1% YoY growth).
- Overall global growth was led largely by India and USA as their consumption rebounded by ~19.9% YoY (CY20: ~-13.7% YoY) and ~21.4% YoY (CY20: ~-18.0% YoY) and they held ~5.8% (CY20: ~5.0%) and ~5.3% (CY20: ~4.5%) share in global consumption.
- World Steel Production has a stark outlay. In CY21, top 10 steel manufacturing countries represented ~83.2% (CY20: 84.4%) global production and ~78.1% (CY20: ~79.6%) of total global consumption.





Source: World Steel Association

Global Per Capita Consumption

- Average World per capita consumption of steel is recorded around ~233Kgs. The highest per capita consumption is recorded in South Korea (~1,076kgs) while the lowest is recorded in Venezuela around ~2.5Kgs. Pakistan's per capita consumption of steel (~59Kgs) is way lower than the world average as well as lower than its regional country, India (~76Kgs).

Global Steel Consumption (Kg/Per capita)						
Sr #	**Company**	**CY17**	**CY18**	**CY19**	**CY20**	**CY21**
1	South Korea	1,102	1,050	1,039	955	1,076
2	Taiwan China	746	750	741	789	886
3	Czechia	677	713	675	624	776
4	China	545	586	636	699	667
5	Austria	464	471	444	405	517
6	Japan	505	514	498	416	456
7	Italy	410	418	413	338	439
8	Germany	496	477	421	372	426
9	Poland	358	393	360	341	400
10	Belgium	288	372	280	243	397
11	World	217	224	230	229	233
12	**Pakistan***	62	53	42	49	59

*Estimated.

Source: World Steel Association, PBS

Global | Top Steel Producing Companies

- World Steel Sector has almost ~40% concentration in its top 20 companies. Top 10 companies (majorly origin being China) account for ~27% of the global production, meanwhile top 20 Companies make up ~39% of the market share in terms of production.

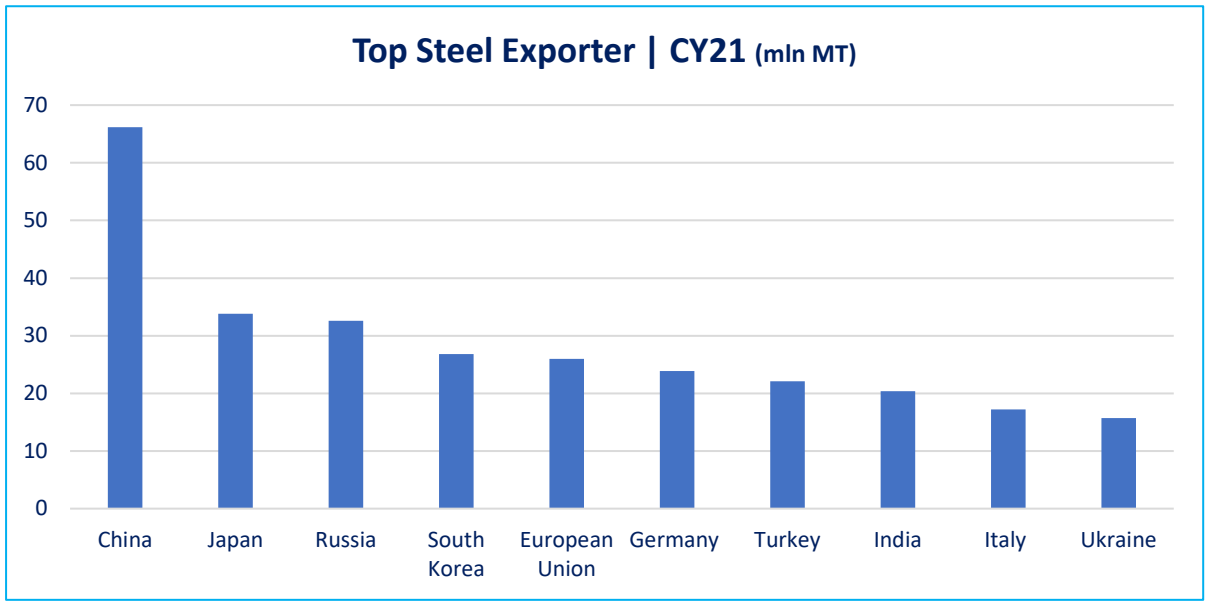
Top Steel Producing Companies (mln tons)				
Sr #	**Company**	**Country**	**CY21**	**% Share**
1	China Baowu Group	China	120	6%
2	ArcelorMittal	Luxembourg	79	4%
3	Ansteel Group	China	56	3%
4	Nippon Steel Corporation	Japan	49	3%
5	Shagang Group	China	44	2%
6	POSCO	South Korea	43	2%
7	HBIS Group	China	42	2%
8	Jianlong Group	China	37	2%
9	Shougang Group	China	35	2%
10	Tata Steel Group	India	31	2%
11	Companies Ranked 11-20	China, India, Japan, USA, South Korea	229	12%
	Others		1,186	61%
Total Production			**1,951**	**100%**

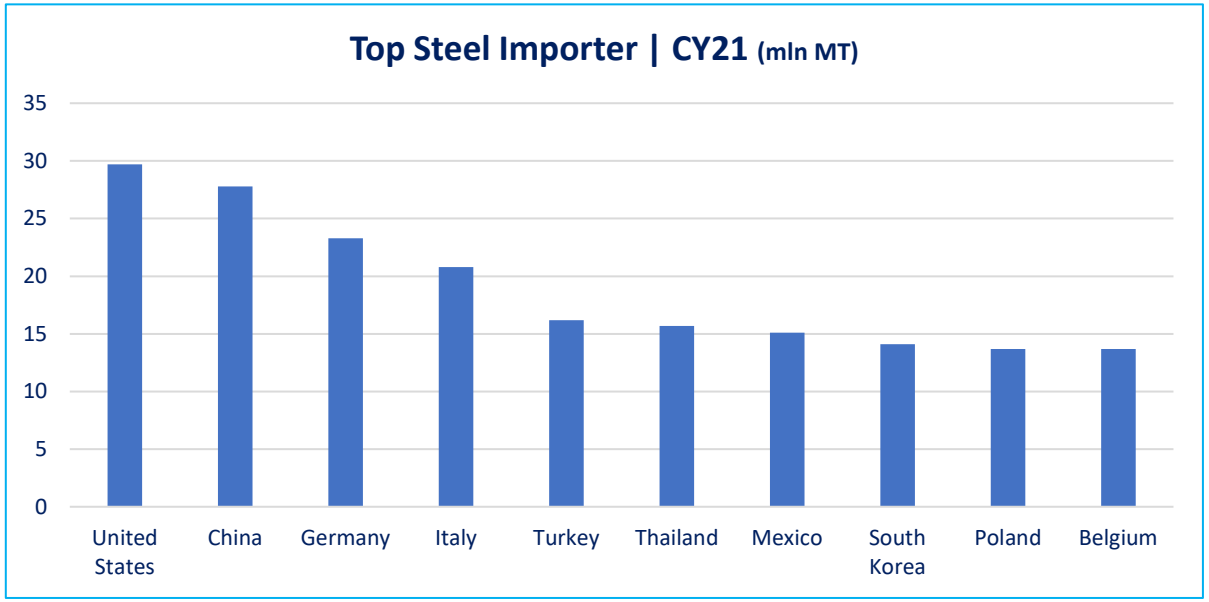
Source: World Steel Association

Global Trade | Gross

Volume in mln tons	CY17	CY18	CY19	CY20	CY21
Export Volume	463	457	439	401	459
Total Finished Steel Production	1,619	1,702	1,747	1,751	1,834
Trade Volume as % of Total Production	29%	27%	25%	23%	25%

- Steel is a moderately traded commodity. In CY21, ~25% of world steel consumption was met through Exports/Imports. China was the largest exporter and USA was the largest importer of steel on gross basis.

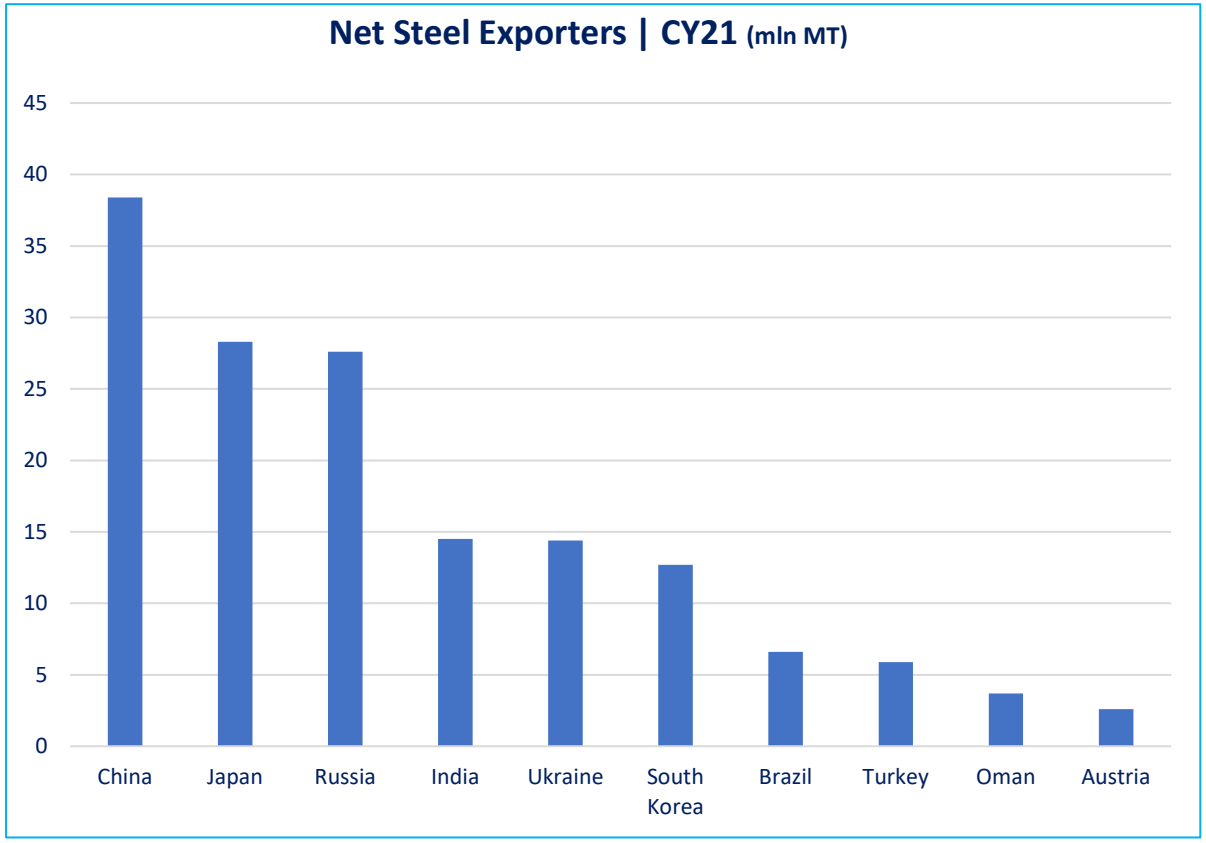


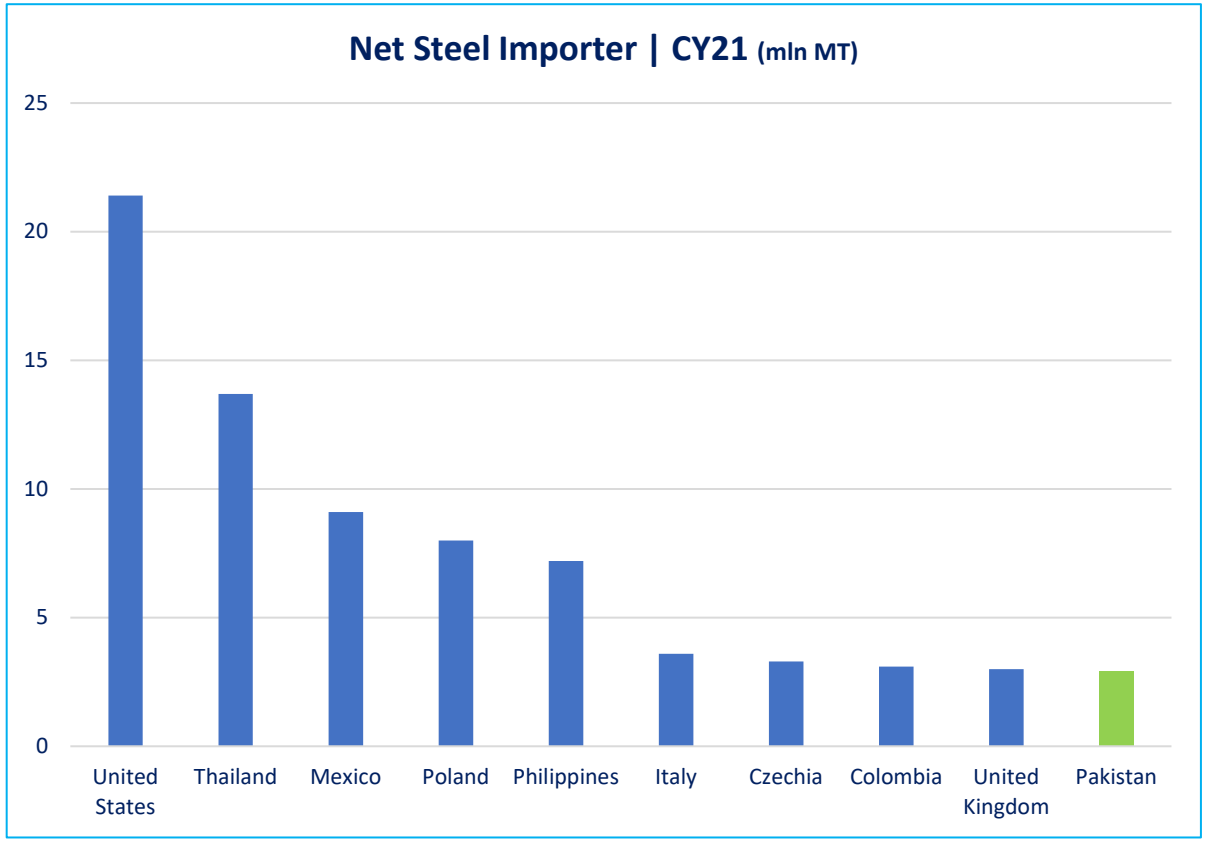


Source: World Steel Association

Global Trade | Net

- China remains the largest net exporter of steel products in the world as the country's net export was recorded at ~38.4mln tons in CY21. Whereas, USA is the world's largest net importer with net imports of ~21.4mln tons in CY21.



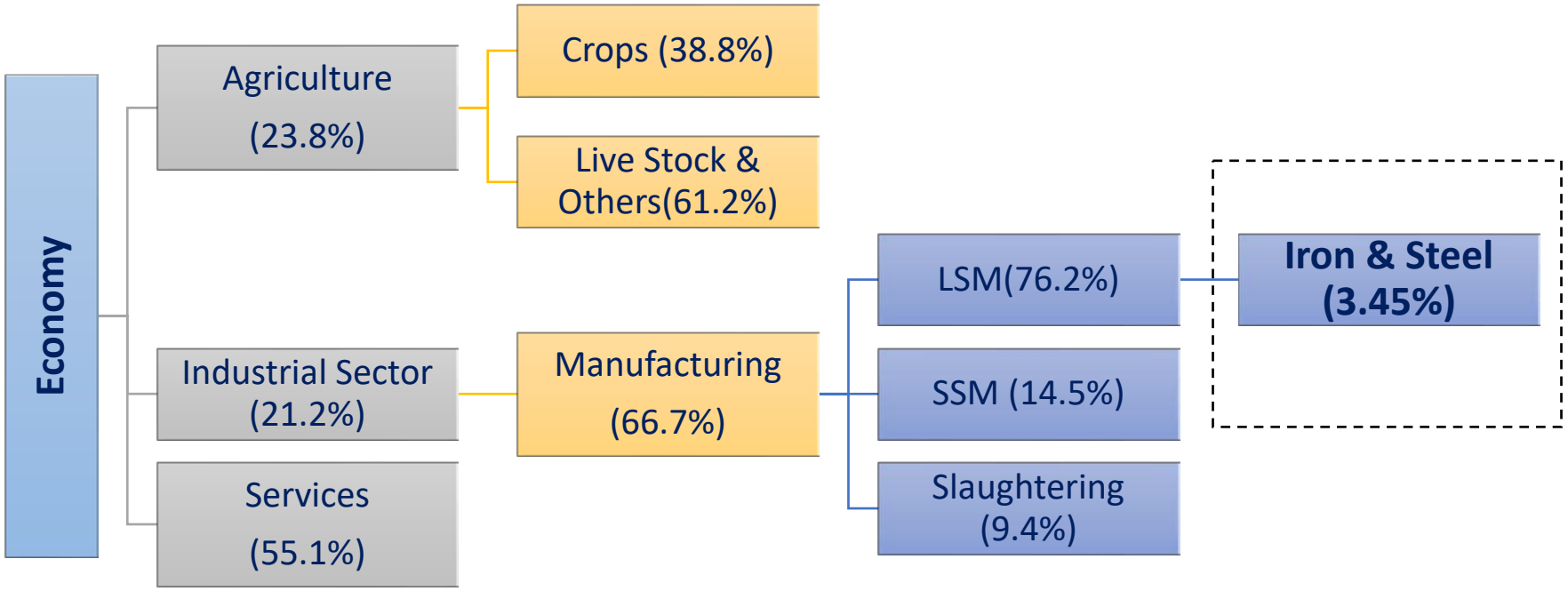


Source: World Steel Association

Large Scale Manufacturing (LSM) | Overview

- With an estimated GDP growth rate for FY22 clocking in at ~6.0% YoY (FY21: ~5.7%); Pakistan's economy maintained its growth momentum. Among major segments; growth in industrial activities is estimated at ~7.2% YoY (FY21: 7.8%).

- The Large Scale Manufacturing (LSM) is a significant component of the Manufacturing Segment of the Industrial sector. It is considered essential for the country's economic growth considering its strategic importance and linkages with other sectors of the economy. It contributes ~9.1% to the GDP and in FY22, it is estimated to have grown by ~10.5% YoY (FY21: 11.5%). The Steel Sector, bearing notable weightage in LSM, holds a share of ~3.5% in its composition.



Source: Pakistan Economic Survey, SBP

STEEL

Local | Industry Snapshot

- Pakistan Steel Sector is largely competitive with 173 players registered with The Pakistan Steel Re-Rolling Mills Association. Key players in the Industry are, however, less than 20 in number, yet account for over ~40-50% production capacity of the sector. Out of these, 12 players are listed on the PSX.

- Pakistan steel sector is majorly driven by private corporates. Pakistan Steel Mills (PSM) – a state owned giant with a capacity of 1.1mln tons has been offline since June 2015.

- The country's annual steel products' demand hovers around ~13.5mln tons (FY22*). Steel products are broadly classified into long & flat products and tubes & pipes. Almost ~73% of the country's demand is met through local production, while the remaining portion is imported.

- The major raw materials used in steel industry is steel scrap. Pakistan is an importer of raw iron and steel scrap, although, the country produces Iron ore (less than a million ton in a year). On the other hand, Pakistan also imports finished steel products (as stated above) to fulfill the country's demand.

Overview	FY20	FY21	9MFY22
Sector Valuation* (PKR bln)	72	175	115
Sector Growth (production)	-17.40%	15.60%	22.65%
Billet/Ingots Growth	-18.30%	50.90%	32.80%
Coils & Plates Growth	-16.60%	-9.80%	7.86%
Structure	Competitive (12 companies listed on PSX)		
Consumption (mln tons)	**9.3**	**11.1**	**10.2**
Local Production (mln tons)	6.8	8.1	7.4
Import (mln tons)	6.4	7.7	5.9
Import (PKR bln)	482.9	609.6	695.5
Regulator	Securities and Exchange Commission of Pakistan (SECP)		
Associations	Pakistan Steel Melters & Re-Rolling Association		

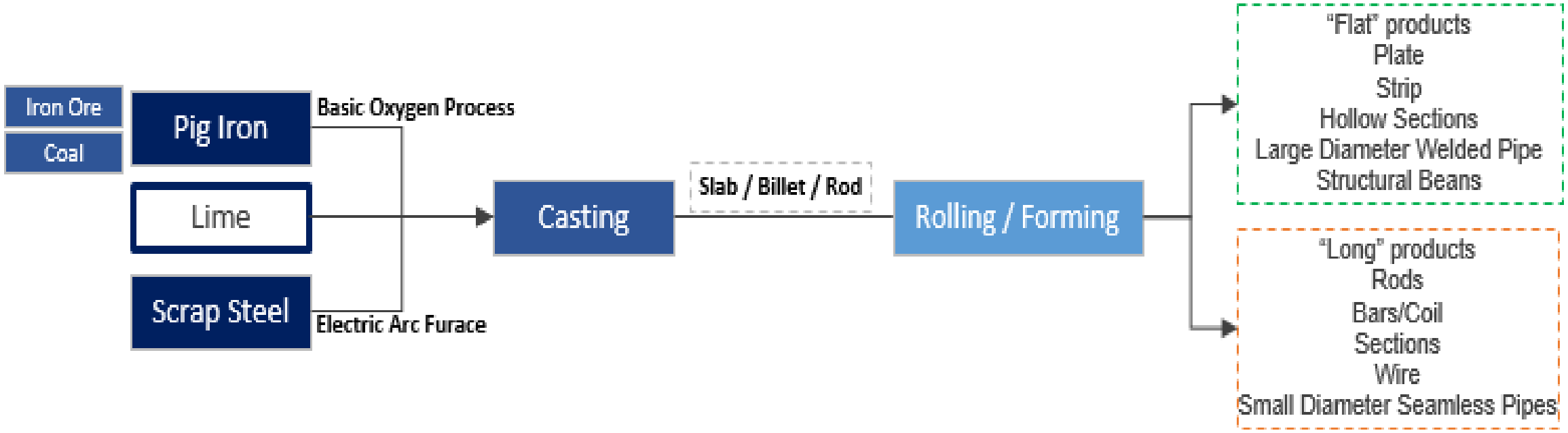
*Listed Steel Companies

*Prorated on 10MFY22 numbers

Source: Pakistan Economic Survey, SBP 10

Production Process

A brief overview of steel production process is illustrated below. In the first stage, crude steel/semi-finished products are produced, from which final products - flat and long products are manufactured.



Major Steel Products

- **Long Steel Products:**

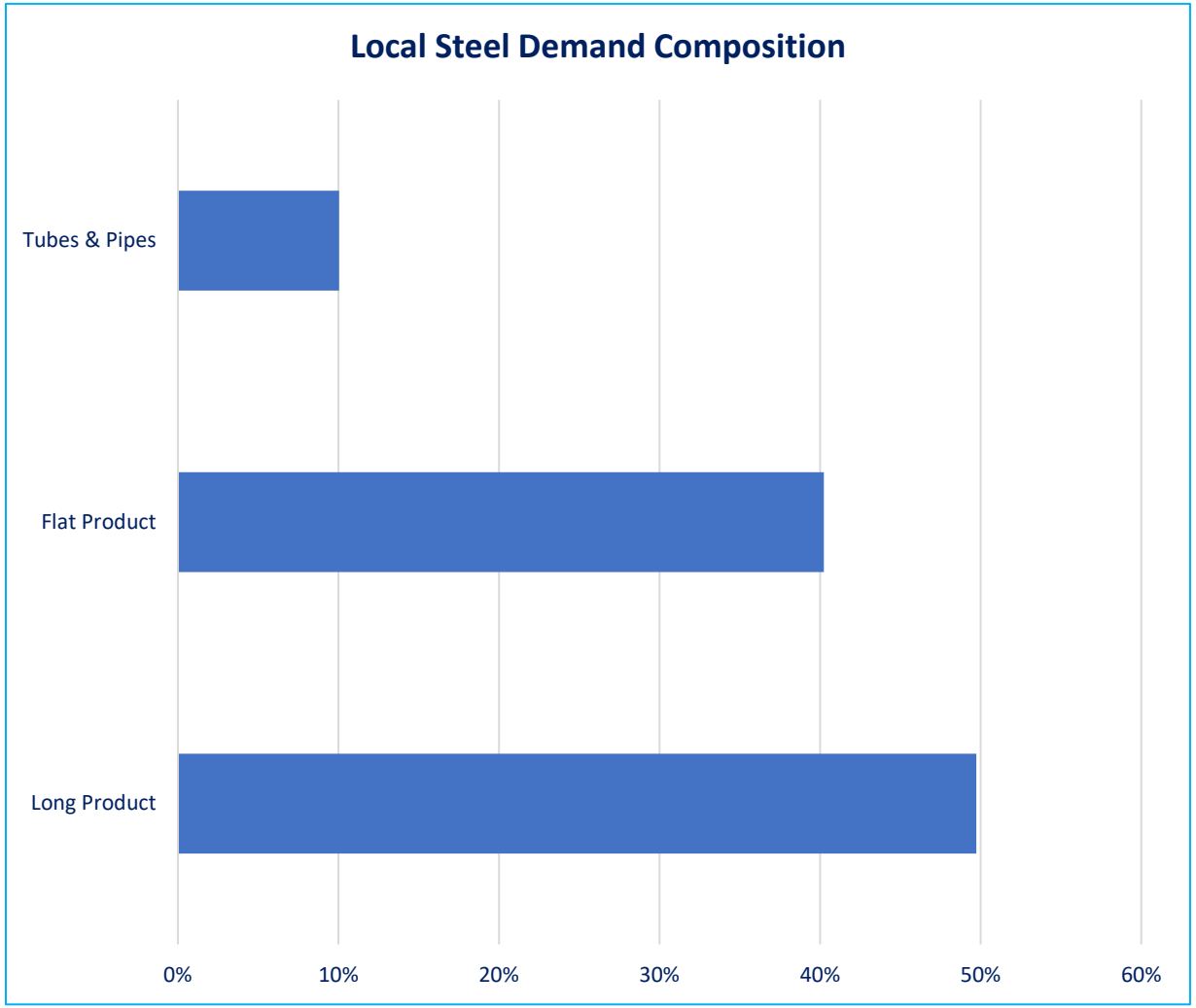
  The term long steel refers to the products made from billets and blooms, which are mainly used in the construction sector. Usually, they are made through EA furnaces. Long steel products include rebar, wire rod, merchant bars, rails and sections.

- **Flat Steel Products:**

  Flat steel products consist of sheets and plates. They are rolled from slabs, which are a semifinished steel product. These products are used in a wide range of industries such as automobile, domestic appliances, and construction.

- **Tubes & Pipes:**

  Steel tubes & pipes are most commonly used to transport products such as oil, gas, and water, and are suitable for long-term installations. The demand is driven by large engineering projects.



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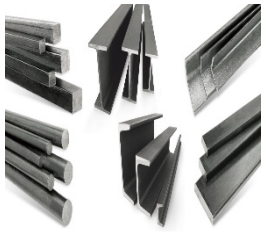
Product Portfolio

Common Long Steel Products:

Rebar

Wire Rods

Merchant Bars



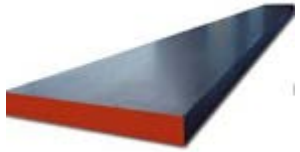
Rails

Common Flat Steel Products:

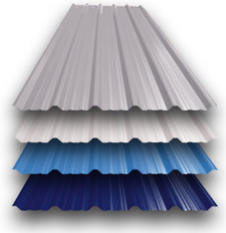
Plates

Hot Rolled Sheets

Cold Rolled Sheets



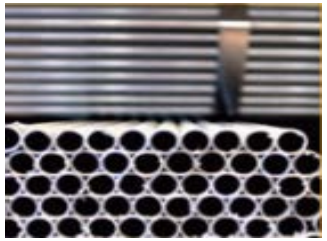
Coated Sheets



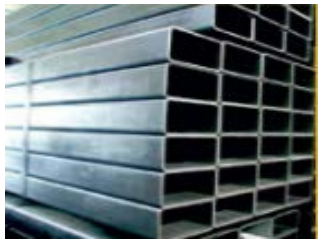
Steel Pipes & Tubes:

Galvanized Iron Pipes

CRS Tubes

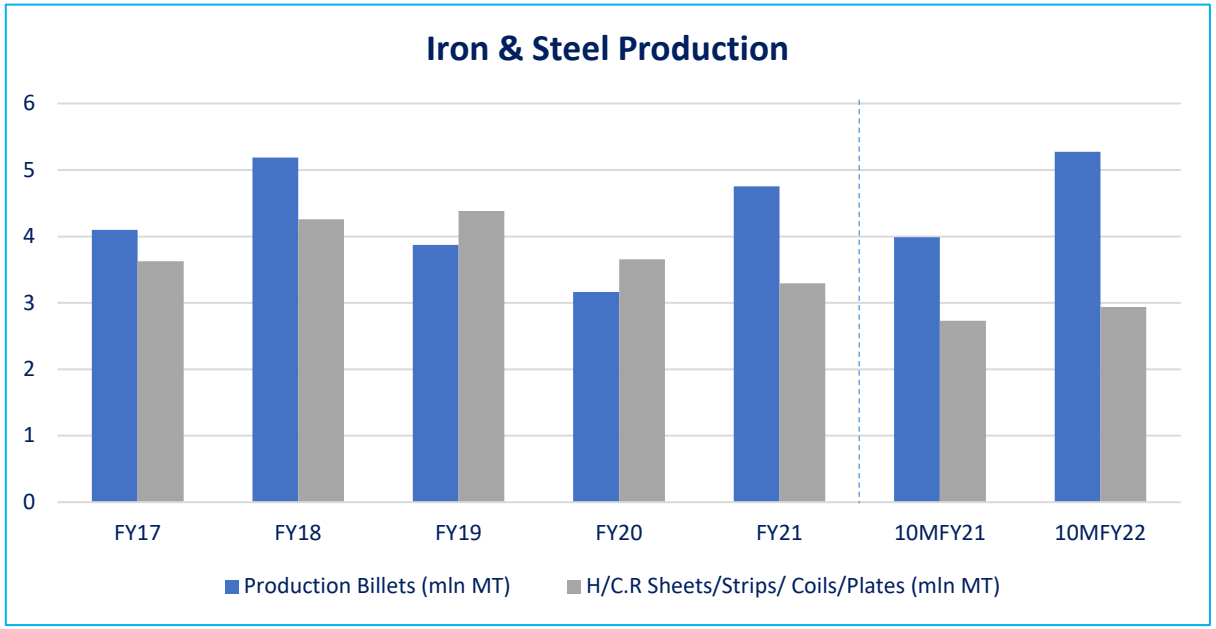


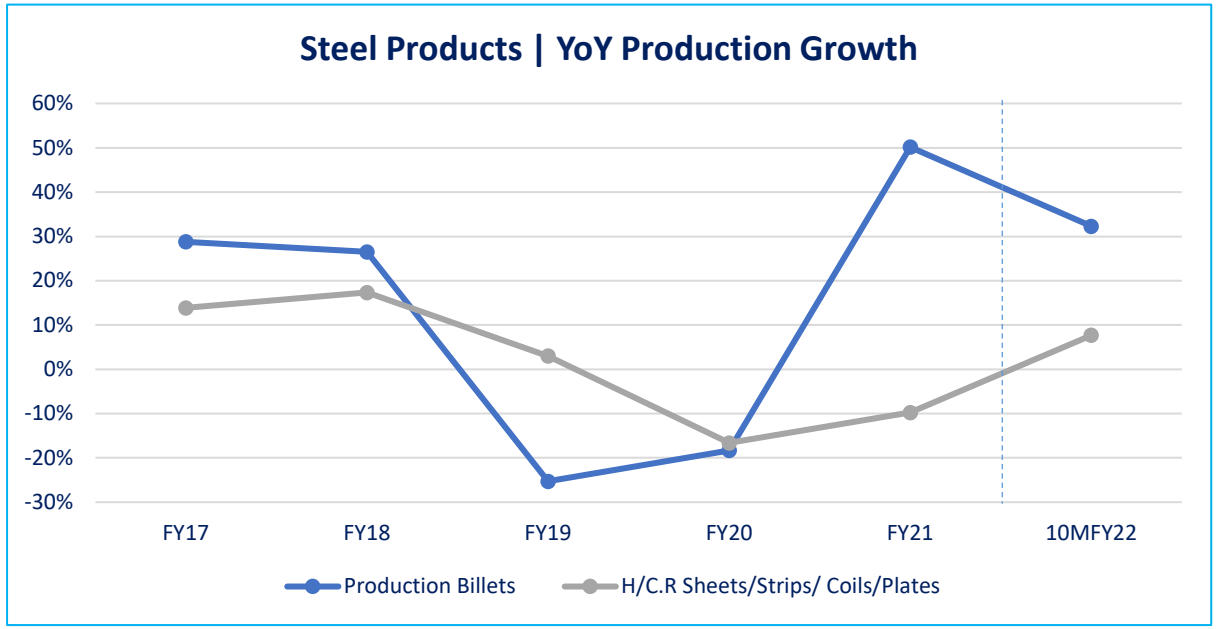
Pre-Galvanized Tool



Stainless Steel

Supply Side | Production





- Production of billets was recorded at ~5.3mln MT during 10MFY22 with YoY growth of ~32% (10MFY21: ~4.0mln MT). For the same period H/C.R Sheets (Flat products) production stood at ~2.9mln MT (10MFY21:~2.7mln MT), up ~8% YoY.

- Among billet manufacturers Amreli Steel, Mughal Iron & Steel and Agha Steel Industries are major listed companies. This segment of the industry is highly fragmented with scores of small players.

Source: Pakistan Economic Survey, APCMA, PBS

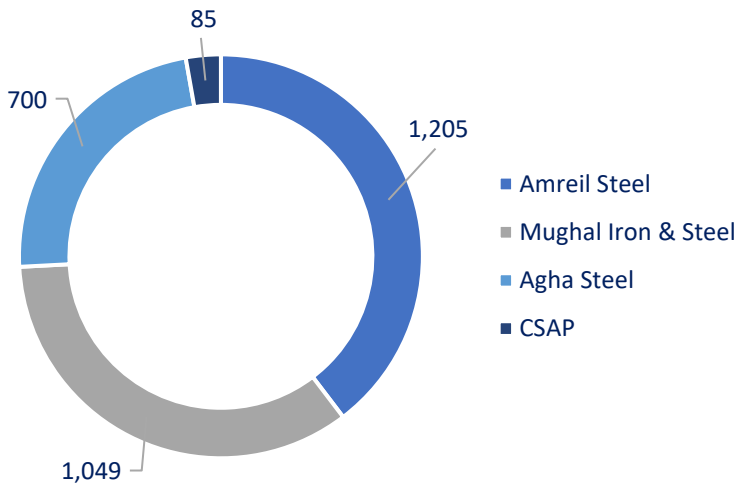
Supply Side | Production Capacity

- **Long Steel Products:**
  Top listed players in long steel segment are Amreli Steel, Mughal Steel, Agha Steel and Crescent Steel & Allied Products.

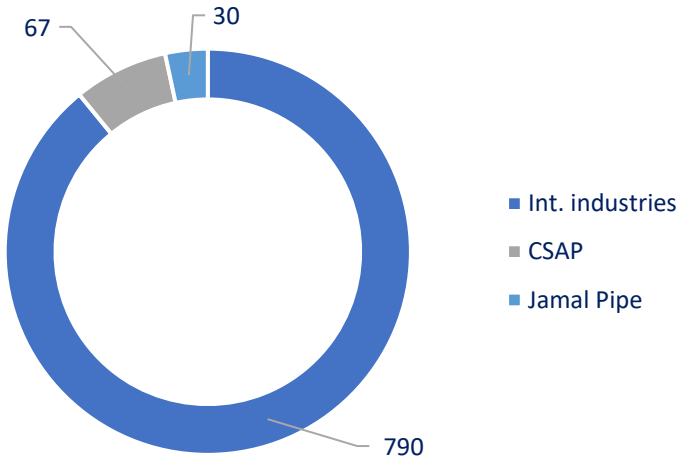
- **Tubes & Pipes:**
  International Industries is the market leader in Tubes & Pipes market of Pakistan.

- **Flat Steel Products:**
  International Steel has flat steel production capacity of ~1.4mln tons, more than double as compare to Aisha Steel .

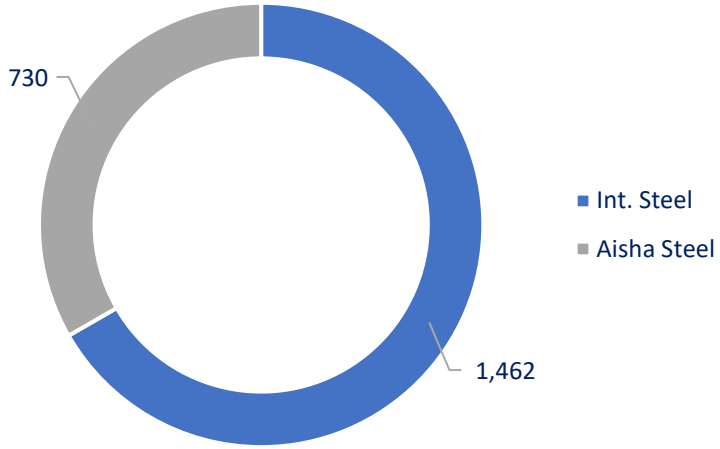
Long Steel Prod. Capacity FY21 (000 MT)



Tubes & Pipes Prod. Capacity FY21 (000 MT)



Flat Steel Prod. Capacity FY20 (000 MT)



Note: Financial are based of financial accounts of selected listed companies and PACRA clients.

Source: Pakistan Economic Survey, APCMA, PBS

Supply Side | Capacity Utilization

- Capacity utilization Increased during FY21 owing to increase in economic activity. However, given the macroeconomic vulnerabilities since 2HFY22 and ensuing contractionary policies, adverse impact on demand and thus capacity utilization is expected.

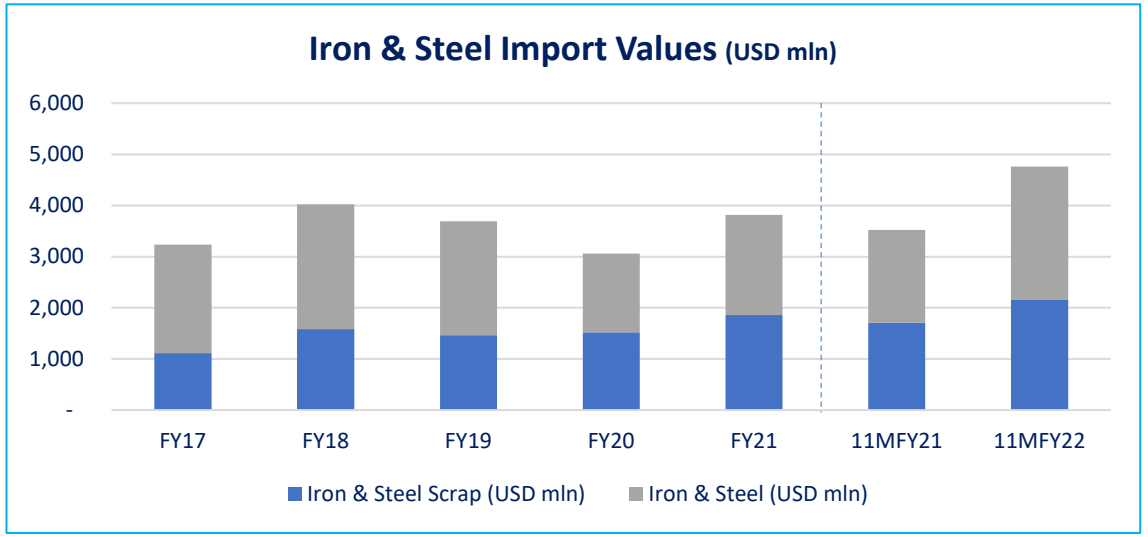
(Figures in 000 tons)	Capacity Utilization				
Long Products					
	FY17	FY18	FY19	FY20	FY21
Actual Capacity	1,167	1,438	2,691	2,694	2,504
Production	680	834	1,354	1,330	1,639
Capcity Utilization (%)	**58%**	**58%**	**50%**	**49%**	**65%**
Flat Products					
Actual Capacity	1,232	1,682	1,760	2,192	2,192
Production	776	790	1,115	1,052	1,326
Capcity Utilization (%)	**63%**	**47%**	**63%**	**48%**	**61%**
Tubes & Pipes					
Actual Capacity	782	777	852	852	939
Production	365	436	320	223	331
Capcity Utilization (%)	**47%**	**56%**	**38%**	**26%**	**35%**

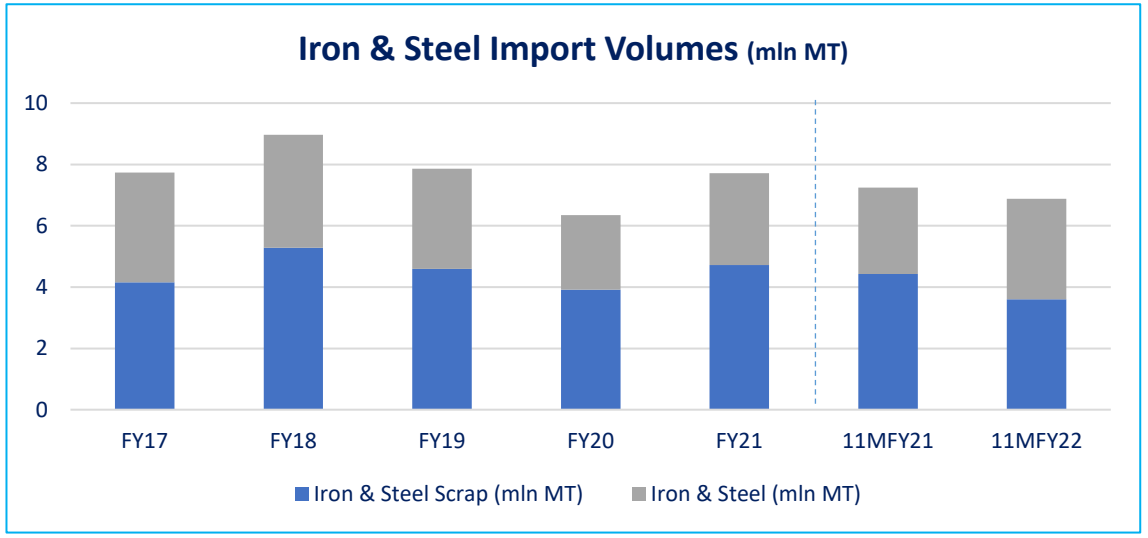
Note: Financial are based of financial accounts of selected listed companies and PACRA clients.

Source: Pakistan Economic Survey, APCMA, PBS

Supply Side | Raw Material

- Pakistan is an importer of steel raw materials, i.e., majorly steel scrap, although a small share of iron ore is locally procured too.
- Most of the raw materials used in steel production are imported from China.
- During 11MFY22, total iron and steel scrap imported was recorded around USD~2.2bln (USD~1.7bln in 11MFY21), a share of ~3% to the country's total imports.
- Total quantity of iron and steel scrap imported was recorded around ~3.6mln MT down ~18% YoY (11MFY21: ~4.4mln MT).
- High dependence on imported raw material exposes the sector to changes in international raw material prices and exchange rate fluctuations.
- During FY22, the country produced ~827k tons of iron ore, a nominal contribution to the sector's requirement.
- Along with raw materials, Pakistan is also a partial importer of finished steel products (discussed later in demand slides).

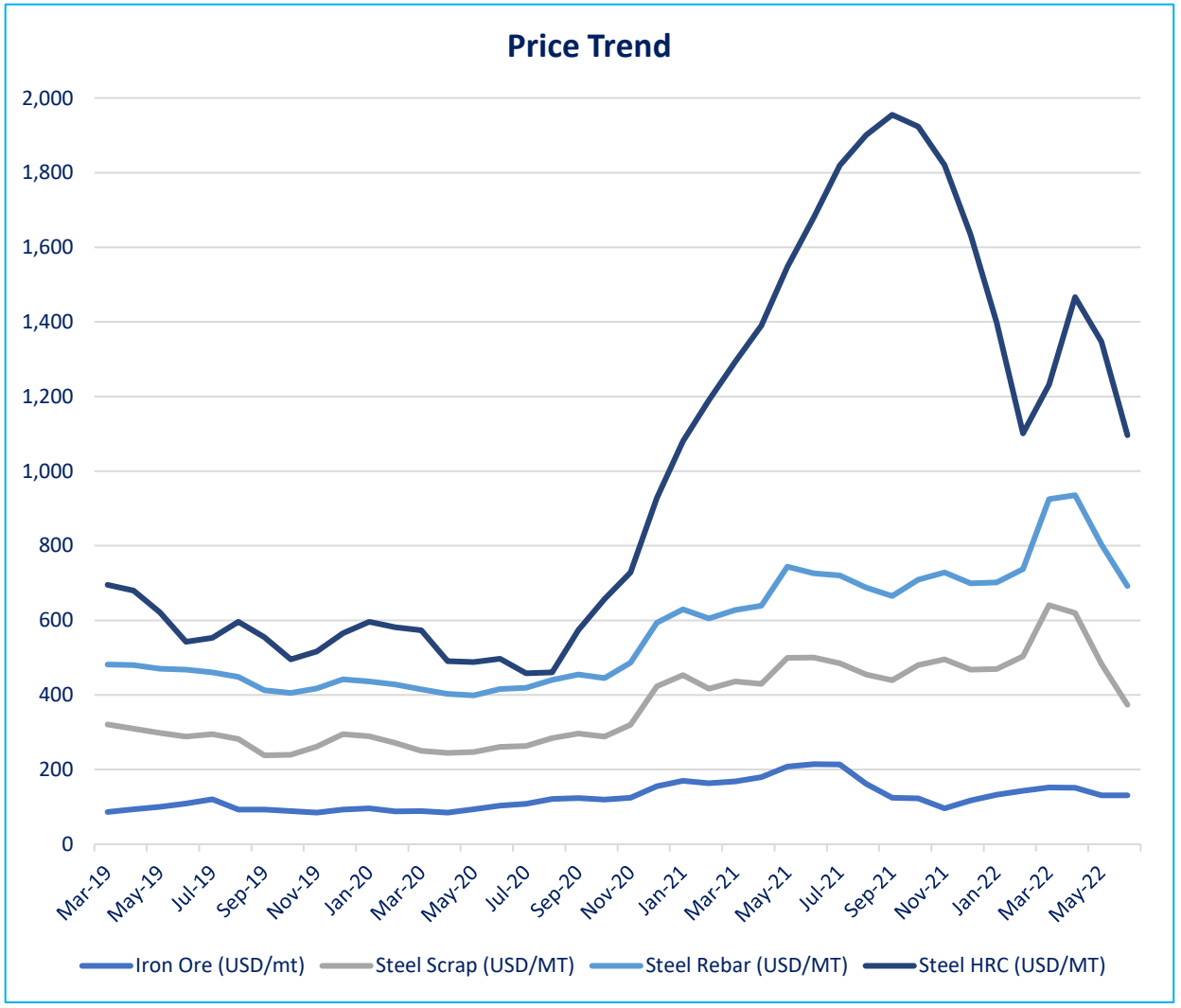




Source: APCMA, PACRA Internal Database, Companies Financials

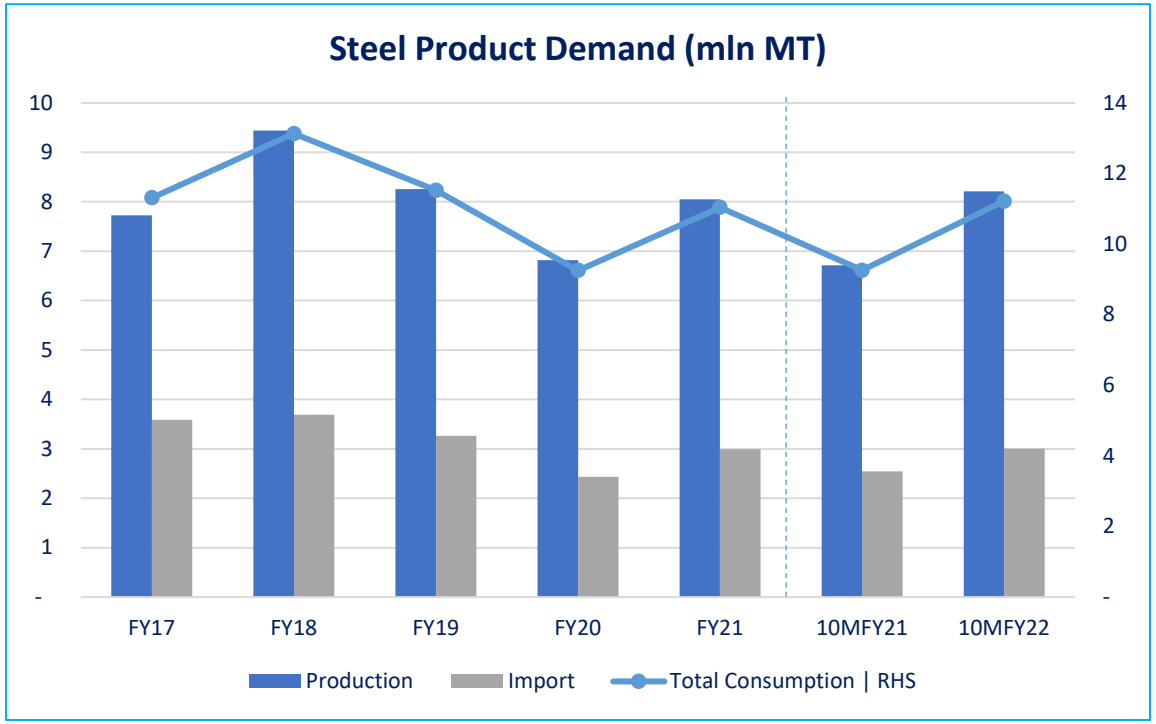
Supply Side | Prices

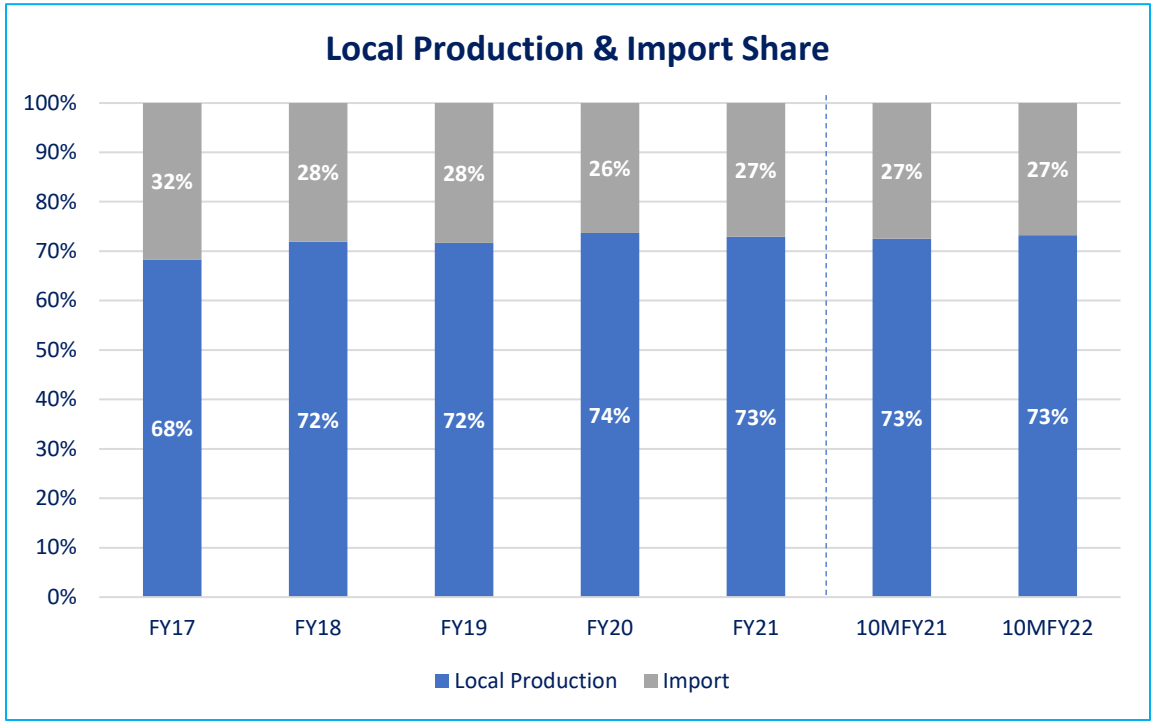
- Global prices of scrap and finished steel observed significant increase starting from Sep'20, amid increased construction activity and tightened supplies; HRC steel prices peaked out by 3QCY21 posting an increase of ~2.8x YoY.
- Since the start of the conflict in Eastern Europe in the beginning of CY22, steel scrap and rebar (long product) prices peaked by 1QCY22 end; posting an increase of ~46% and ~47% YoY respectively.
- Iron ore prices dipped to below USD100/MT by Nov'21 owing to both reduced steel production targets and lower demand, on the back of reduced real estate activity after the imposition of debt financing limits on the sector. However inline with other ferrous commodity prices, iron ore prices rebounded at USD152/MT by 1QCY22 end.
- Manufacturers of long products are major importer of scrap steel in the local Market. Flat steel producing companies imports hot rolled coil (HRC) as the major raw material for their final product are cold rolled coils (CRC).
- Amidst heightened global prices and prevalent macro economic vulnerabilities in the local market; manufacturers' ability to pass on the price impacts may diminish.



Source: FT, LME, WB

Demand Overview





- Pakistan's total Steel Products' consumption was recorded at ~11.2mln MT in 10MFY22 (10MFY21:~9.3mln MT) up ~20% YoY basis. The increase was majorly witnessed in Billets/ingots local production from which long steel products are produced that are used in the construction sector. In 10MFY22 Billet/ingot production increased by ~32% YoY.

- In 10MFY22 HRC/CRC Sheets/Strips production also grew by ~7.7% YoY (10MFY21: ~-14%) as production in the electrical and mechanical equipment segments picked up pace.

Source: PBS

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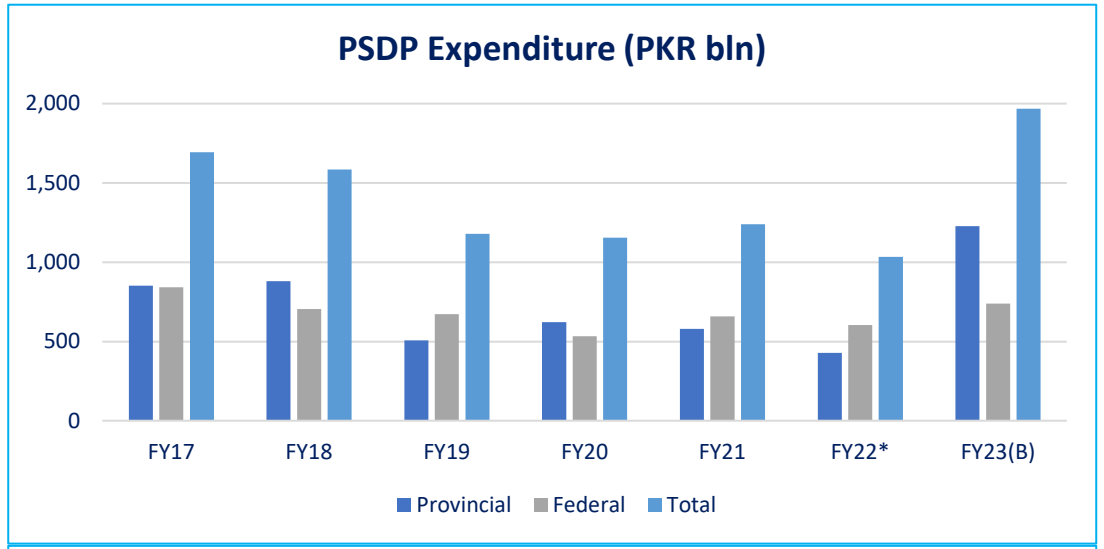
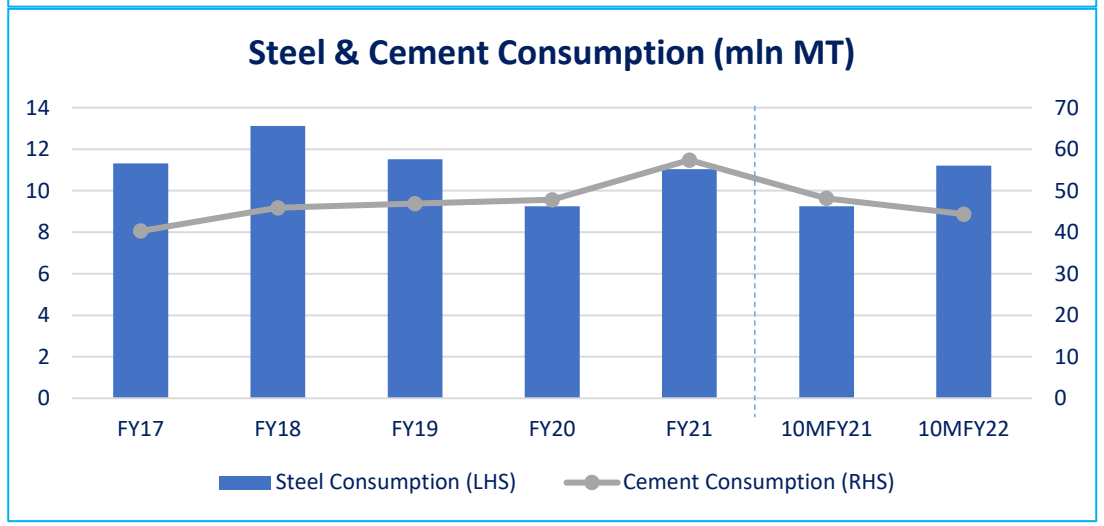
Demand | Construction

- Majority of the construction revenue is from government contracts ranging from building of Infrastructure to Highways, Offices and Airports. The budgeted size of PSDP allocation for FY23(B) is PKR~1,967bln, down ~8% YoY from FY21 budget.
- PSDP expenditure and construction activities are highly correlated and provide impetus for job creation, support economic activities and alleviate poverty.
- In FY22 a total of PKR~2,135bln PSDP expenditure was budgeted (Federal: PKR~900bln; Provincial: PKR~1,235bln); however due to increasing external pressures (commodity price inflation) in the later part of FY22, development expenditures were cut in favor of current consumption and thus only ~48% of the budgeted amount is estimated to have been utilized (~35% provincial; ~67% federal).
- In FY23, PSPD expenditure has been budgeted at PKR~1,967bln, ~8% lower than previous year; as FY23 in its beginning has inherited both external pressures and internal vulnerabilities in combination with contractionary macro-economic policies coming into effect.
- Public development spending can reasonably be expected to remain lagged in the near term; with construction demand mainly generating from existing projects.





*9MFY22
(B) Budgeted

Source: Planning & Development division and MOF

Demand

Major Public Sector Projects to boost up steel demand:

- Dams: Initial/preparatory works for the construction of Diamer Bhasha Dam and Mohmand Dam is in progress.
- Construction of new green field Gwadar International Airport and Gwadar Port Free Zone. The construction of Free Zone Phase-I has been completed with all infrastructures. More than 30 enterprises from various sectors have registered in Gwadar Port Free Zone.
- Construction of 'Panahgahs' in major cities to provide shelter to the homeless. Construction of Nuclear Power Plants near KANUPP site in Karachi, i.e., K-2/K-3 and a power plant at Chashma near Mianwali (C-5).
- Expansion of Pipeline Network: PAPCO is expanding its pipeline network from Machhike (Sheikhupura) to TaruJabba (Peshawar). The pipeline is expected to be dual purposed (MOGAS and HSD) and the contract for construction has already been initiated. It is expected to be completed in FY23. The ~427km long pipeline is divided into three section, aimed at ensuring a smooth supply chain of petroleum products from Karachi to Peshawar.
    - Machhike-Chak Pirana (~135km)
    - Chak Pirana-Rawat (~117km)
    - Rawat-TaruJabba (~175km)
- Pakistan Stream Gas Pipeline (formerly “North-South Gas Pipeline”): Pipeline with the length of ~1,122km connecting Port Qasim (Karachi) to Kasur (Punjab) would be built under the Inter Governmental Agreement for North South Gas Pipeline (NSGPP) between Russian Federation and Pakistan.

Source: ISGS, Economic Survey, PAPCO, PARCO

Business Risk| Overview

Operating Risks:

- **Dumped Imports:** Despite huge potential for growth, the steel sector's growth momentum has historically remained subdued. One of the major risks that the Sector has faced over time is Import Substitution. Pakistan imports finished steel products from countries including China, Ukraine, Canada and Russia. Many of the steel products were historically being imported at dumped prices. In a response to the Sector Players' and Association's plea, the NTC imposed anti dumping duties (~24%) on import of billets/ingots from China effective from June, 2017 for a period of five years. The NTC also imposed dumping duties of ~14% on imported H/C.R Coils/Sheets from Canada and Russia w.e.f. Sep 20, 2019 for a period of five years.

- **Availability of Cheaper Steel Products from other major markets:** Another key risk for the development of steel sector is the availability of cheaper products (other than dumped) from other markets such as FATA. In Budget FY23, GOP maintains its stance on not taxing the untaxed steel players in FATA, and they still enjoy the exemption from FED.

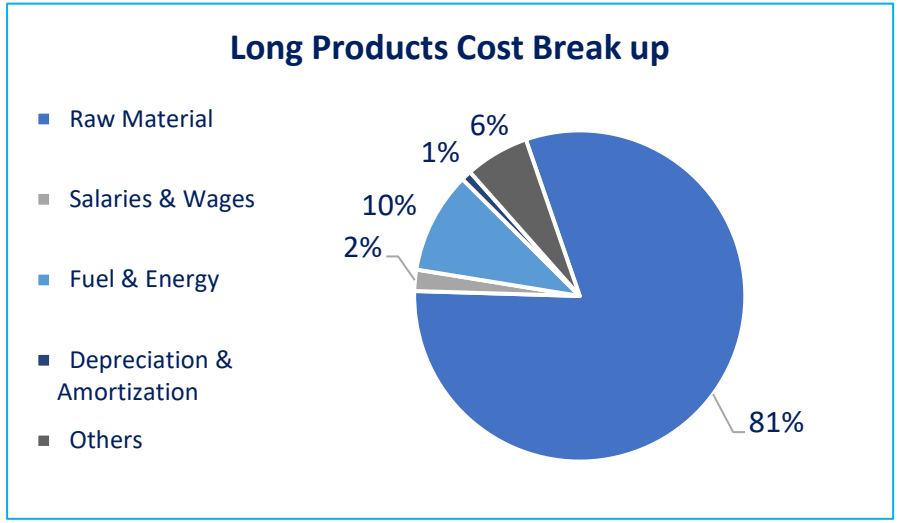
- **Inefficient Energy Utilization:** Steel is an energy intensive sector. Many of the small sized players rely on obsolete and energy inefficient steel making technology. The quality of steel products from these mills is substandard as well as costly in comparison to big manufacturers.

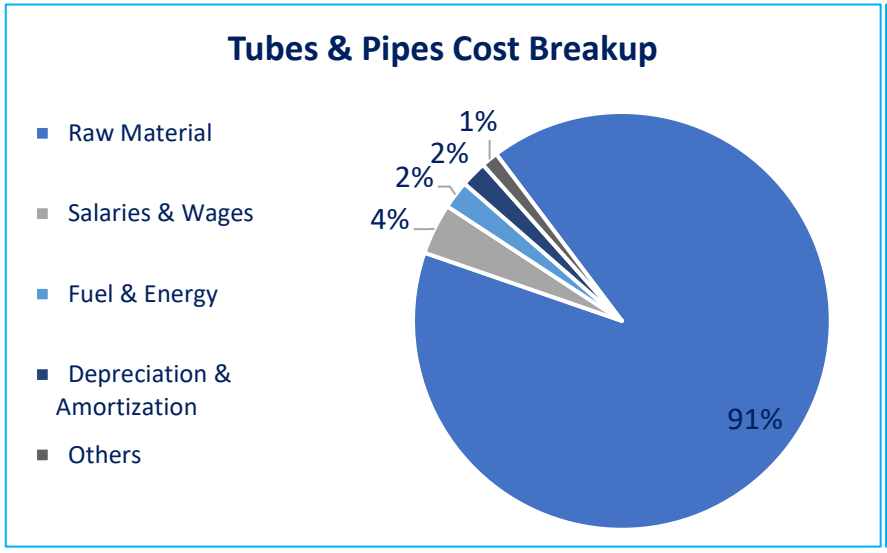
Sales Risks:

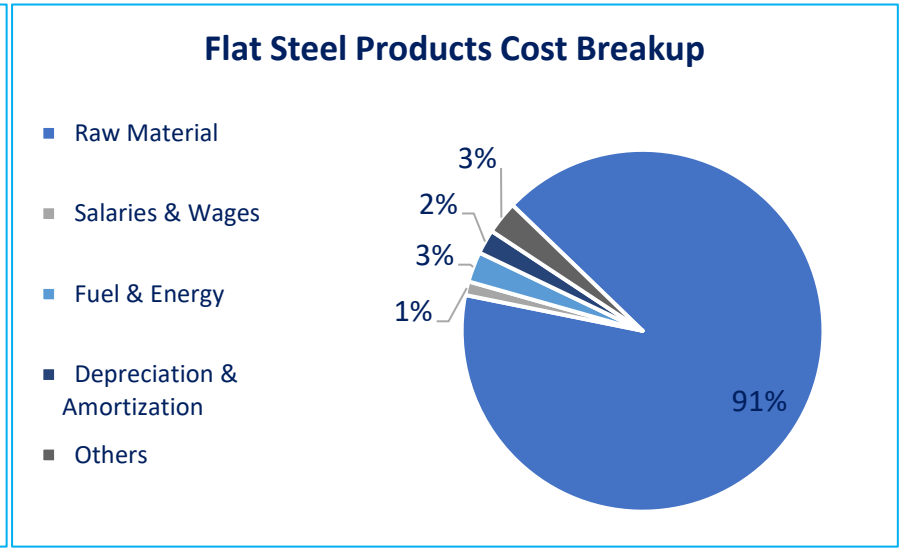
- The demand for Steel Sector is linked to a number of other essential sectors of the economy, the foremost being construction, automotive and electronics sectors. Prospects for the construction and automotive sectors are positive, therefore, demand for long steel products are expected to foster in the near future. However, flat products, which are majorly used in electronics production, may continue to witness a slowdown in the upcoming days, till the electronics segment revives.

Business Risk| Cost Break up

- Major raw material used in steel manufacturing process is steel scrap. Raw Material constitute a significant portion of the companies' manufacturing cost. High reliance on imported raw material to meets sector's demand exposes the sector to changes in international raw material prices and exchange rate fluctuations.
- At FY22 end, international prices of scrap steel declined by ~25% YoY, however PKR depreciated by ~27% YoY against USD, thus local manufacturer margins may remain under check, especially amidst plausibly dampening construction/infrastructure demand; as prevalent market sentiments can also disallow price increases in the near term.
- Fuel & energy cost is the second largest component of the cost as it constitutes ~10% of the total cost of the production in case of long steel products.
- Owing to tight supply and conflict in Eastern Europe; global energy prices as at FY22 end increased by ~82% YoY as all major commodity prices hit multi year or all-time highs.
- Other than high prices, lack of reliable supply; especially electricity also adversely impacts COGS.
- Companies with captive powerplants are less exposed to operational disruptions; but are exposed to energy commodity price and exchange rate movements.







Note: Numbers are based on accounts of of selected listed companies and PACRA clients.

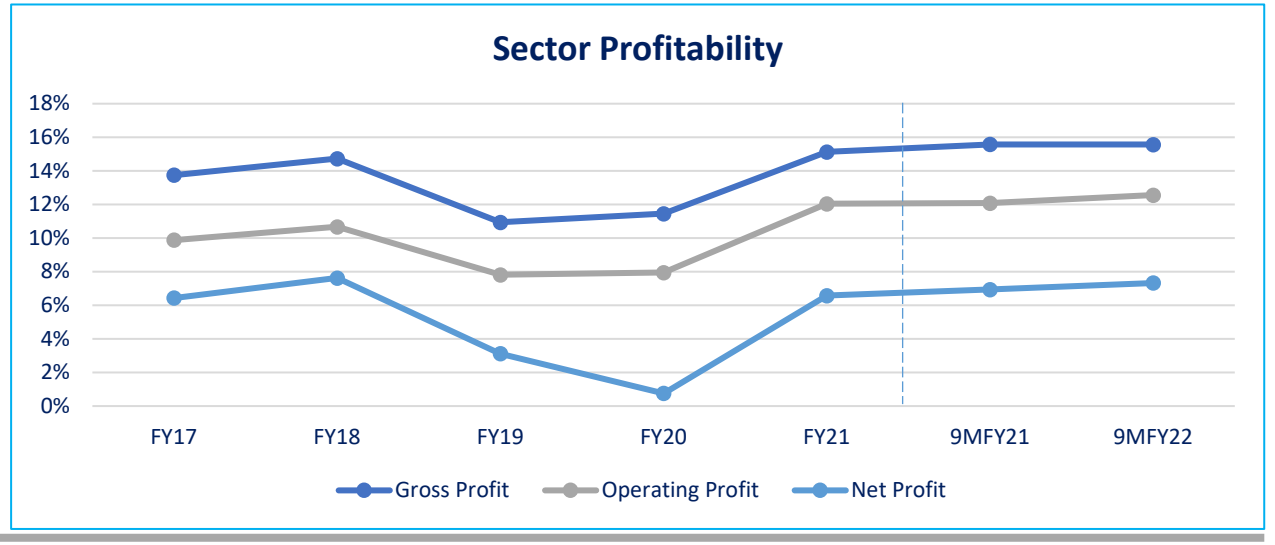
Source: SBP, WB, PACRA Internal Database, Companies Financials

STEEL

Business Risk | Long Products

- Total revenue of the long products segment was recorded at PKR~104bln during FY21 (FY20: PKR~67bln) with a YoY increase of ~55%.
- The segment posted a robust recovery in FY21, as long product production* increased by ~50% YoY and prices increased by ~19% YoY; pushing segment Gross Margin to ~15% (FY20: ~11%); segment Operating Margin increased to ~12% (FY20: ~8%) owing to better cost controls (i.e. Operating Expenses/Net sales of FY21: ~3.0% compared to FY20: ~3.5%); while segment Net Margin increased to ~7% (FY20: ~1%) pertaining to both better performance and reduced finance cost.
- Segment maintained performance in 9MFY22, net sales grew by ~42% YoY, as long product production* grew by ~33% YoY; while segment pricing grew by ~44% YoY; this lead to GP margin of ~16% (9MFY21: ~16%) and increased OP margin of ~13% (9MFY21: ~12%); although finance cost increased due to policy rate hikes, yet NP margin remained at ~7% (9MFY21: ~7%).
- Although the segment performed efficiently in both FY21 & FY22; with both higher volumes sold and cost pas through ability; however given the prevalent economic vulnerabilities both local and global; the segment may struggle to retain its performance in near future.

Figures in PKR mln	Sector: Financial Highlights						
Company	FY17	FY18	FY19	FY20	FY21	9MFY21	9MFY22
Net Sales	32,087	37,726	69,906	67,264	104,047	72,605	108,472
Cost of Sales	27,677	32,174	62,262	59,563	88,312	61,303	91,595
Gross profit	**4,410**	**5,553**	**7,644**	**7,702**	**15,735**	**11,302**	**16,876**
Operating Expense	1,242	1,529	2,188	2,358	3,163	2,533	3,258
Operating Profit	**3,168**	**4,024**	**5,456**	**5,344**	**12,527**	**8,769**	**13,618**
Finance Cost	501	1,026	3,179	5,345	4,428	3,102	4,681
Profit/(Loss) before Tax	**2,667**	**2,998**	**2,277**	**(1)**	**8,099**	**5,667**	**8,938**
Taxation	603	123	103	(508)	1,265	635	994
Profit/(Loss) after Tax	**2,064**	**2,875**	**2,174**	**507**	**6,834**	**5,032**	**7,944**



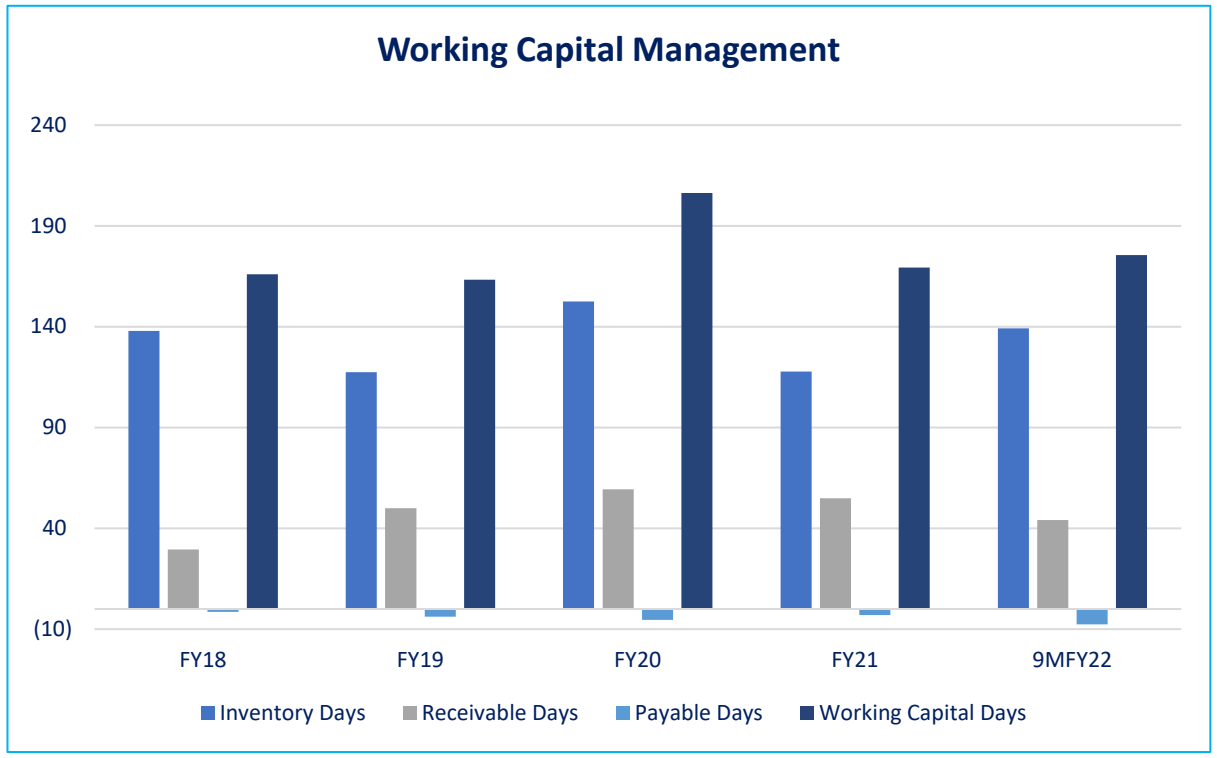
Note: Numbers are based on accounts of of selected listed companies and PACRA clients.
* Local billet production growth considered equivalent to long product production growth.

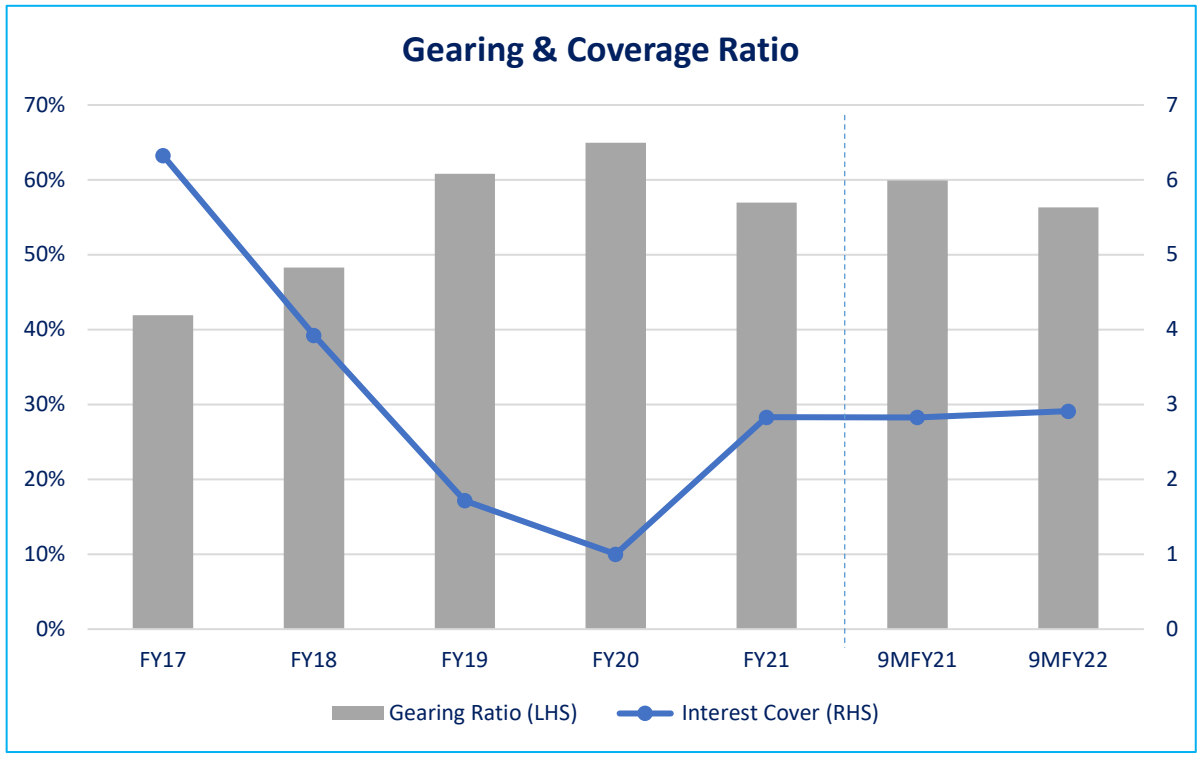
Source: APCMA, PBS, Companies Financial, PACRA Internal Database

Financial Risk | Long Products

- The segment's working capital structure is characterized by high inventory and receivable days. Considering the long lead time required for procurement of raw material, this segment usually maintains high inventory levels.

- The segment's working capital cycle was recorded at ~175 days during 9MFY22 (FY21: ~169 days) mainly driven by inventory days rising to ~139 days during 9MFY22 (~118 days in FY21). The Sector's exposure to Raw Material volatility in terms of price and exchange rate fluctuation is high, which can lead to fragility in its profitability.





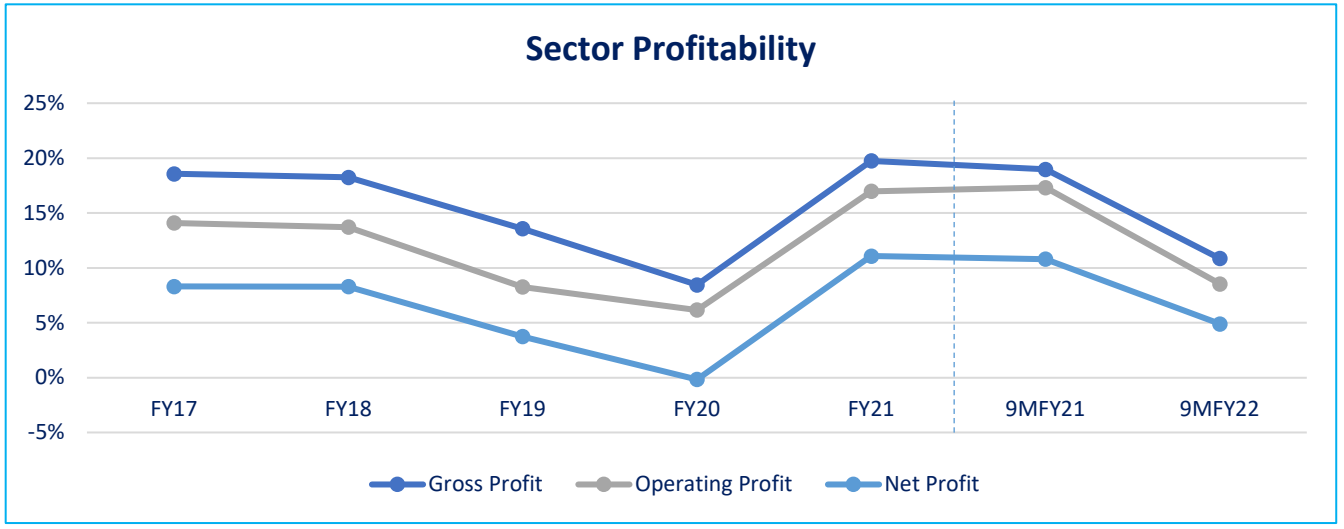
Note: Numbers are based on accounts of of selected listed companies and PACRA clients.

STEEL

Business Risk | Flat Products

- Inline with the whole steel sector, the demand of flat products also rebounded as the segment's revenue was recorded at PKR~125bln during FY21 (FY20: PKR~78bln) posting ~60% growth YoY.
- Although flat product production* declined by ~10% in FY21, however due to improved pricing power of ~19%, segment GP margin improved to ~20% (FY20: ~8%); improved cost controls of ~22% (i.e. Δ operating ratio) lead to enhanced retention and OP margin increased to ~17% (FY20: ~6%); while lower finance cost also helped NP margin reach ~11% (FY20: ~0%).
- In 9MFY22, segment net sales increased by ~31% YoY; as flat product production* levels increased by ~8%; while segment pricing power increased by ~42%; however as FY22 started with peaking HRC prices, the segment faced YoY ~10% higher COGS per net rupee earned; thus segment Gross and Operating margins dipped to ~11% (9MFY21: ~19%) and ~9% (9MFY21: ~17% YoY); while higher finance cost also led to lower Net Margin of ~5% (9MFY21: ~11%).
- Going forward, recent contractionary measures taken by the government and SBP may cause subdued demand from the electronics and machinery manufacturing sectors and keep segment growth in check; however reducing input prices (i.e. steel scrap and HRC) may offer some respite to segment margins.

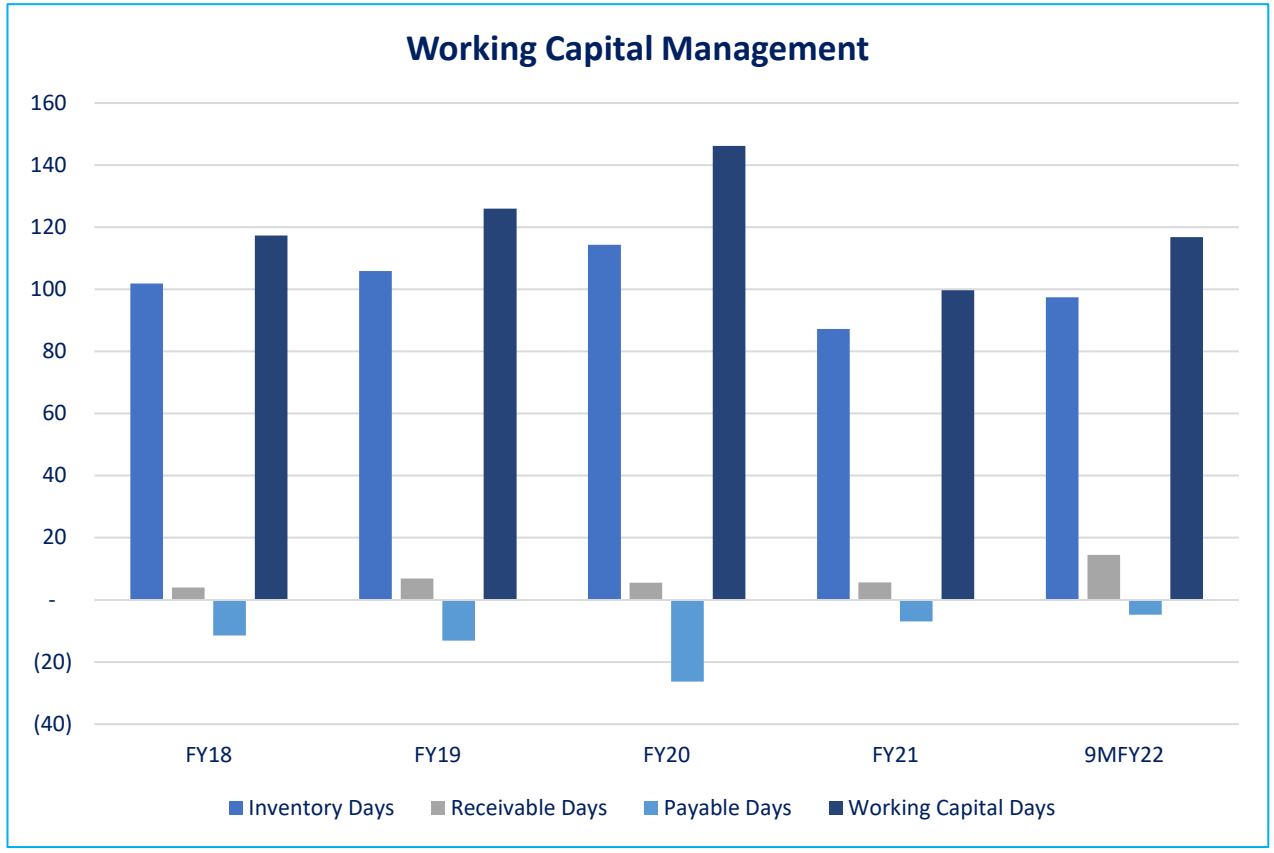
Figures in PKR mln	Sector: Financial Highlights						
Company	FY17	FY18	FY19	FY20	FY21	9MFY21	9MFY22
Net Sales	48,897	68,062	77,714	77,861	124,913	91,671	119,674
Cost of Sales	39,814	55,636	67,164	71,279	100,235	74,267	106,679
Gross profit	**9,083**	**12,426**	**10,550**	**6,582**	**24,678**	**17,405**	**12,995**
Operating Expense	2,190	3,091	4,129	1,783	3,459	1,528	2,764
Operating Profit	**6,893**	**9,335**	**6,421**	**4,799**	**21,219**	**15,877**	**10,231**
Finance Cost	1,403	1,617	3,154	5,700	2,336	1,942	2,490
Profit/(Loss) before Tax	**5,490**	**7,718**	**3,267**	**(901)**	**18,883**	**13,935**	**7,741**
Taxation	1,427	2,069	348	(778)	5,047	4,031	1,872
Profit/(Loss) after Tax	**4,063**	**5,649**	**2,919**	**(123)**	**13,836**	**9,904**	**5,869**

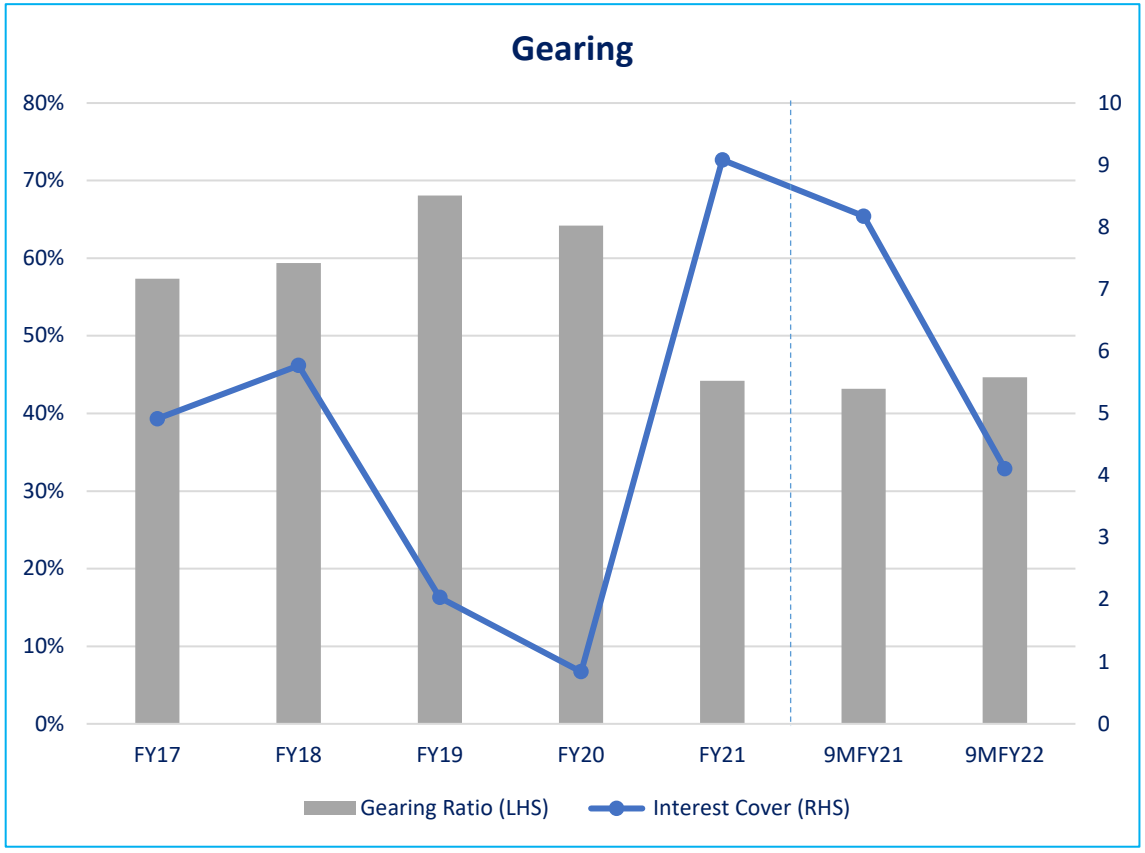


Note: Numbers are based on accounts of of selected listed companies and PACRA clients.
* Local H/C.R Sheets/Strips/ Coils/Plates production growth considered equivalent to flat product consumption growth.

Financial Risk | Flat Products

- The segment's working capital structure is characterized by high inventory days and moderate payable days.
- Working capital cycle increased to ~117 days during 9MFY22 (FY21: ~100 days) due to both Increased inventory and receivable days to ~97 and ~15 days during 9MFY22 (~87 and ~6 days in FY21).





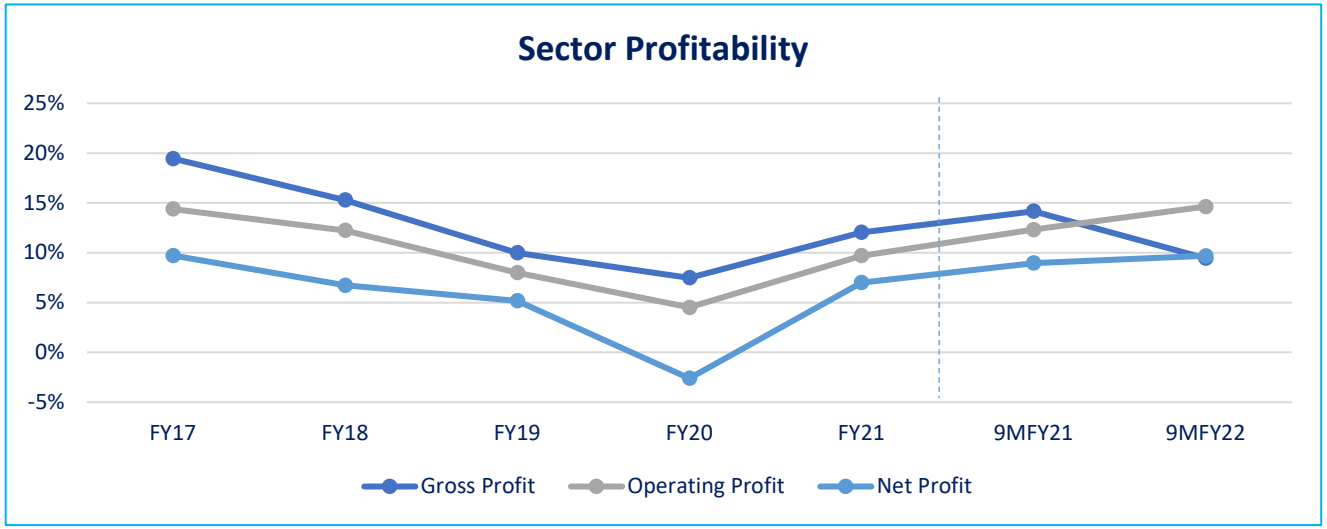
Note: Numbers are based on accounts of of selected listed companies and PACRA clients.

STEEL

Business Risk | Tubes & Pipes

- Steel tubes & pipes segment registered a revenue of PKR~39bln in FY22 (FY21:PKR~26bln) with a YoY growth of ~55%; as overall steel consumption grew by ~19% YoY and segment pricing power increased by ~20% YoY.
- The steel tubes and pipes demand is strongly linked to the government spending as most of the segment's demand emanates from large engineering projects.
- The government not only slashed budgeted development expenditure in FY22 by ~16%; but also budgeted ~8% YoY lower PSDP allocations for FY23; given the prevalent economic vulnerabilities, large development projects are likely to remain subdued in the near term.
- In 9MFY22 although segment pricing power increased by ~36%; but due to peaking raw material prices (i.e. HRC for welded pipes and tubes) segment Gross Margin dipped to ~9% (9MFY21: ~14%); however income from investments enabled higher Operating Margin of ~15% (9MFY21: ~12%) and Net Margin of ~10% (9MFY21: ~9%) despite higher finance cost.
- Moving forward in the near term, subdued demand for new construction projects may keep sector growth in check, while reducing raw material prices would likely alleviate pressure off of sector margins.

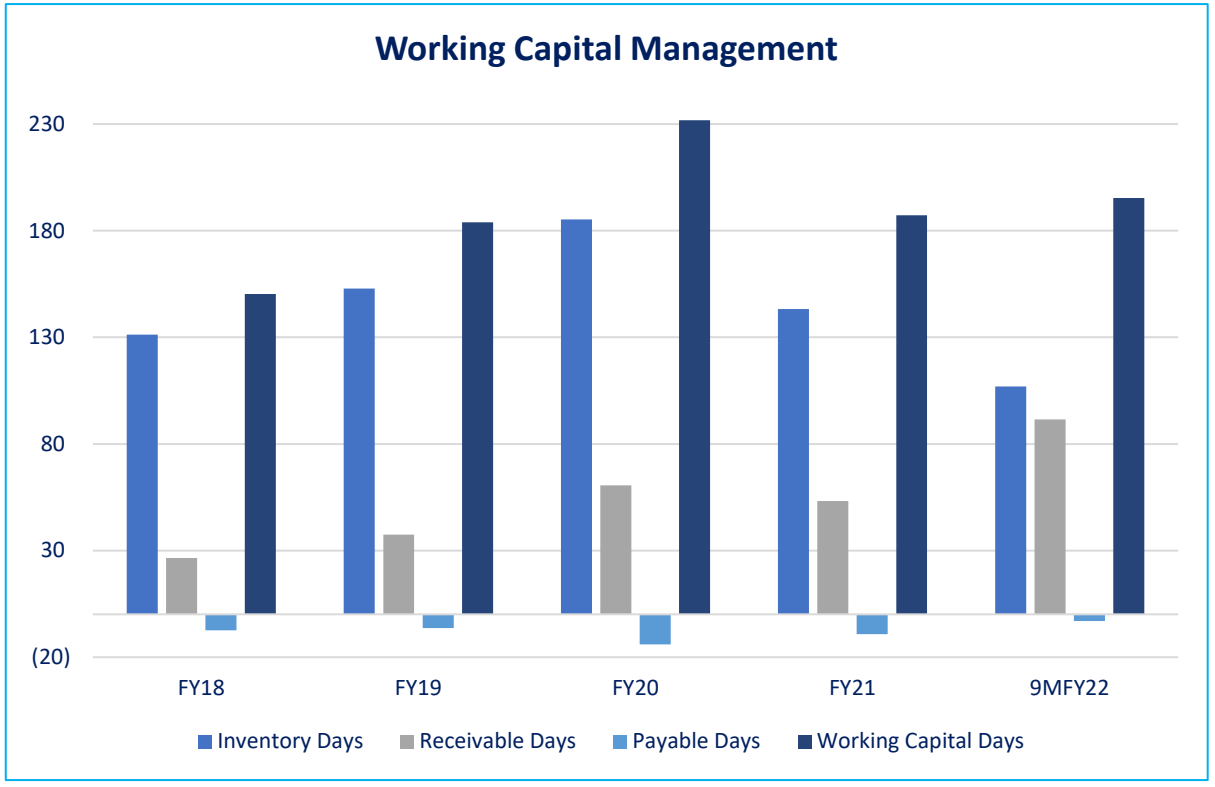
Figures in PKR mln	Sector: Financial Highlights						
Company	FY17	FY18	FY19	FY20	FY21	9MFY21	9MFY22
Net Sales	29,948	35,881	32,441	25,651	39,386	27,385	33,164
Cost of Sales	23,807	29,995	28,842	23,310	34,170	23,504	30,031
Gross profit	**6,141**	**5,886**	**3,599**	**2,341**	**5,216**	**3,881**	**3,133**
Operating Expense & Other Income	1,517	1,097	(152)	762	926	507	(1,718)
Operating Profit	**4,308**	**4,391**	**3,391**	**1,159**	**3,821**	**3,374**	**4,851**
Finance Cost	435	1,158	1,290	1,627	1,005	694	974
Profit/(Loss) before Tax	**3,873**	**3,234**	**2,101**	**(468)**	**2,816**	**2,680**	**3,876**
Taxation	962	817	424	199	59	224	664
Profit/(Loss) after Tax	**2,911**	**2,416**	**1,677**	**(667)**	**2,757**	**2,456**	**3,213**

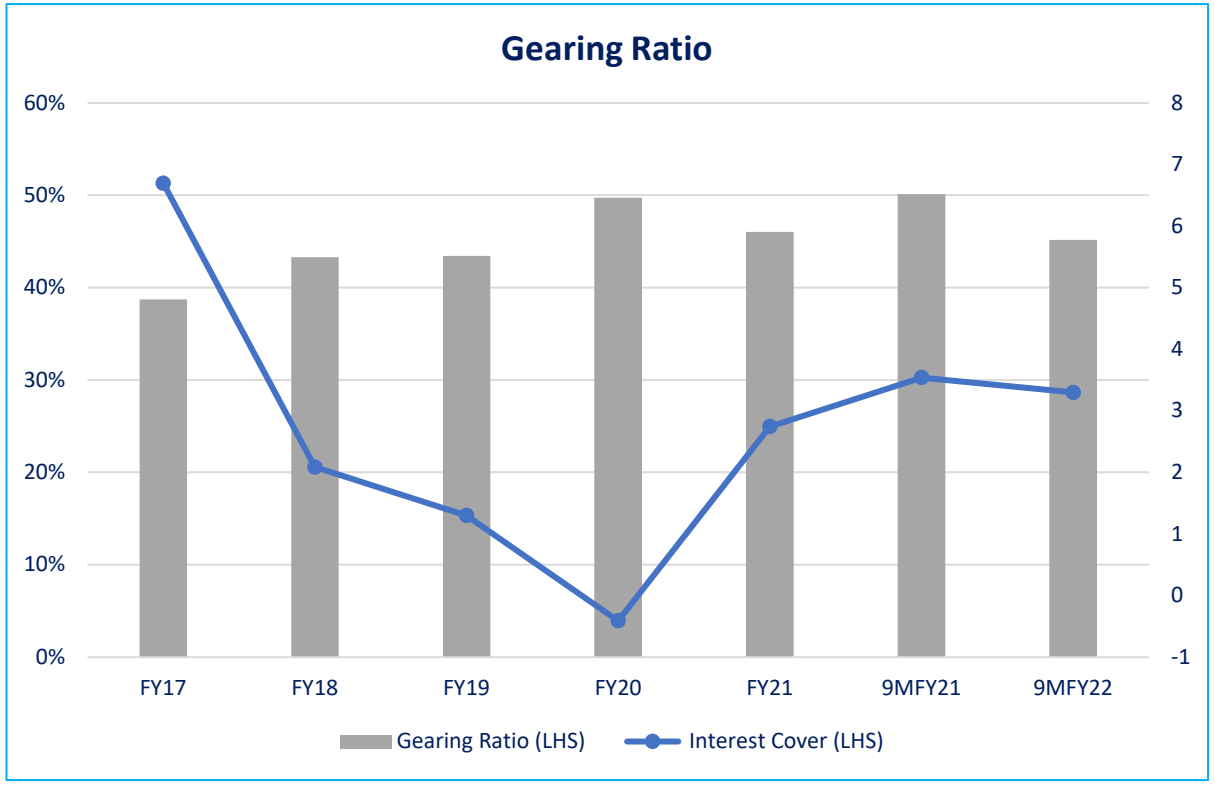


Note: Numbers are based on accounts of of selected listed companies and PACRA clients.

Financial Risk | Tubes & Pipes

- The segment's working capital structure is characterized by high inventory days and receivable days.
- The segment's working capital cycle has gone up by 17 days in 9MFY22 to~117 days (FY21: ~100 days) mainly due to an increase in receivable days from ~6 days in FY21 to ~15 days in 9MFY22.



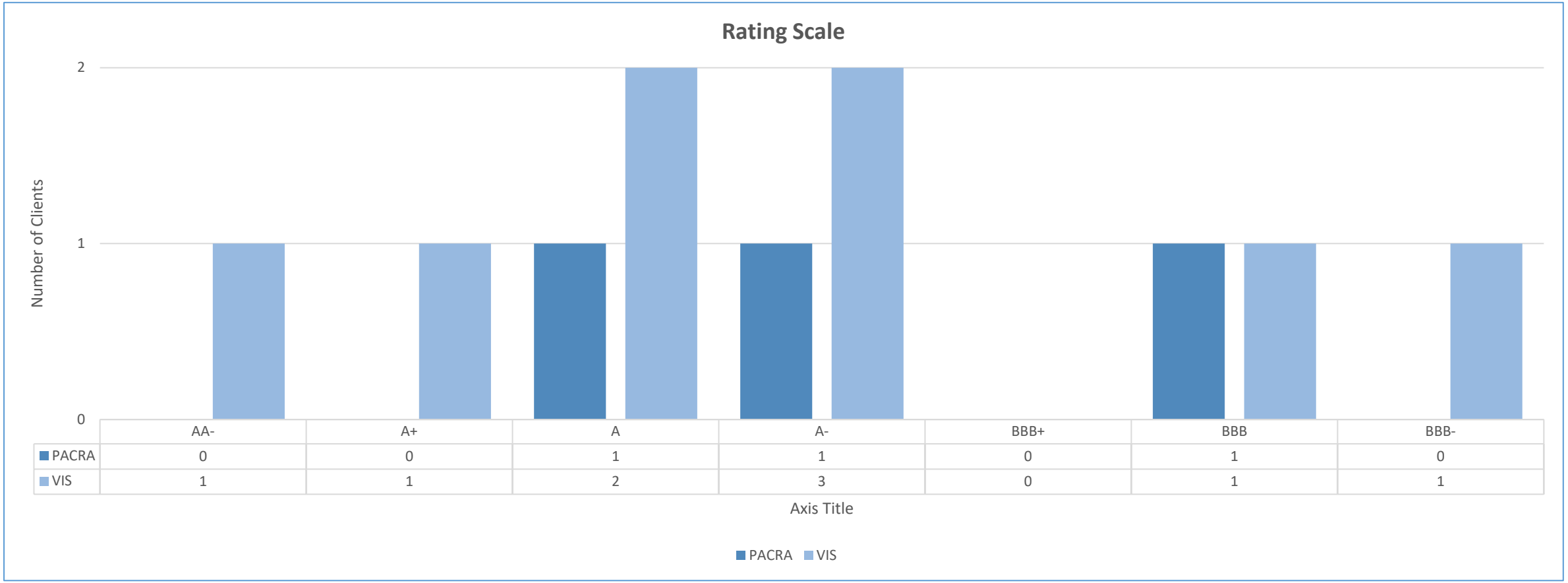


Note: Financial are based of financial accounts of selected listed companies and PACRA clients.

STEEL

Rating Curve

- PACRA rates 3 clients in the steel sector. Rating bandwidth of the sector is BBB to A.



	AA-	A+	A	A-	BBB+	BBB	BBB-
PACRA	0	0	1	1	0	1	0
VIS	1	1	2	3	0	1	1

STEEL

SWOT

- Capital intensive sector
- Good margins in periods of demand boom.
- Significant Potential demand
- Strong dealership and distribution network
- Non-availability of substitute

- Heavy reliance on imported raw material
- Exposure to exchange rate volatility
- Seasonality and uncertainty in demand
- Inability to pass on impact of increased cost in times of depressed demand

- High Production capacity – supply surplus
- Increasing cost of energy
- Inability of the government to spend on PSDP projects
- Fourth wave of COVID-19 and possible lockdown

- Low per capita consumption
- Government initiatives to spur construction activities and establish a large number of low cost houses.
- Pakistan GDP recovery and reduced finance costs leading to opportunities for investment
- Improving infrastructure under CPEC related projects
- Initiation of large engineering projects

Duties & Taxes

- Duty structure of the sector is designed to encourage local production of the cement.

PCT Code	Description	Custom Duty		Additional Custom Duty		Regulatory Duty		Sales Tax		Income Tax	
	Raw Material for Cement	0%FY22	FY23	FY22	FY23	FY22	FY23	FY22	FY23	FY22	FY23
7204.3000	Scrap	3%	3%	2%	2%	5%	5%	17%	17%	11%	11%
7206.1000	Ingots	11%	11%	2%	2%	0%	0%	17%	17%	11%	11%
7207.1110	Billets	20%	20%	2%	2%	15%	15%	17%	17%	11%	11%
7209.1510	Flat Rolled Products	20%	20%	6%	2%	5%	5%	17%	17%	11%	11%
7213.1010	Bars & Rods	0%	0%	6%	2%	30%	20%	17%	17%	11%	11%

Source: FBR

STEEL

Outlook: Stable

- Steel is one of the most important sectors of the Infrastructure cluster, and therefore, holds a high significance in the construction industry as well as in the overall economy as it has linkages with a numerous important sectors of the economy.

- Despite its essentiality, the sector has its share of risks and concerns that hinder its growth to the full potential. Most of the unaddressed concerns have historically continued to be the major hurdles for the growth of the private players in the Sector. The organized segment faces stiff competition from Imports as well as undocumented market which hampers its productivity. Despite the challenges, the Sector has shown resilience in times of economic pressures and softening demand, and remained profitable at gross level even during hard-hit COVID-19 days of FY20. The same is expected to continue, going forward.

- Cost pass through ability of the players remains high. This is witnessed from the fact that steel rebar prices hit a multi-year high of around PKR~230k-240k/ton in 2QCY22, owing to rising raw material prices, freight charges, rupee depreciation and augmented energy tariffs. However, this in turn takes a toll on the demand of the Sector, and overall construction activity of the country is expected to remain subdued in the days to come. A cut of ~8% in PSDP spending budget is a testament to it. At the bottomline level, the Sector margins are expected to encounter pressure owing to rising finance costs as well as imposition of super tax introduced in Finance Bill'23.

- Steel demand is driven by sectors such as construction, auto, appliances, agriculture, etc. Hence the demand for long and flat steel is a major function of economic growth and LSM which is likely to witness a slowdown in FY23. The flat steel industry also faces challenges from dumping of steel products from FATA, Pakistan Administered Tribal Area (PATA) region because of GST exemptions. In FY22, sales of local manufacturers were adversely impacted and this exemption is expected to end by FY23. The risk of FATA and PATA remains a concern for the local flat steel manufacturers.

- On an overall basis, we believe that in the short term, the demand for steel sector is likely to remain negatively impacted due to the stated factors. On the other hand, the trend of reducing iron ore prices in the global market would enable sector players to secure better margins in 1HFY23, and may also lead to further reduction in the product prices as is witnessed in the trend of lower rebar prices during Aug'22.

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Research Team	**Saniya Tauseef** Asst. Manager saniya.tauseef@pacra.com	**Usman Sarwar** Research Analyst nadeem.sheikh@pacra.com
Contact Number: +92 42 35869504		

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