



# STEEL SECTOR

## An Overview



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Steel Industry plays a pivotal role in 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).

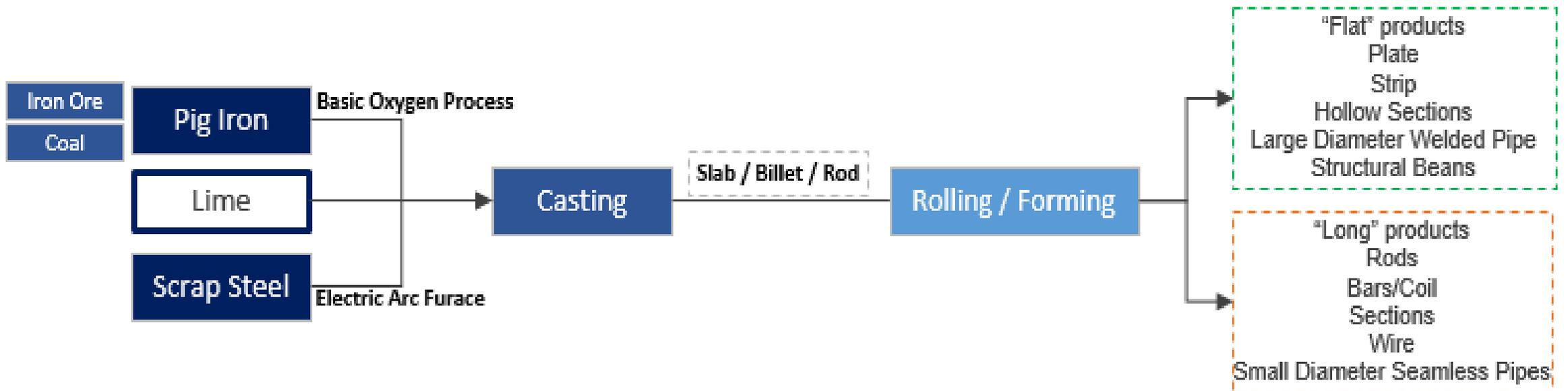
Major Raw Materials used in steel production are **Iron Ore** (a mineral substance which is heated to yield metallic iron), **Coal** (to produce Carbon) and **Steel Scrap** (due to its recyclable nature).

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.



## AN OUTLINE

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.





## SEMI FINISHED PRODUCTS



**Billets**

**Blooms**

**Ingots**

**Slabs**

**Long Steel Products**  
(mainly used in construction sector)

**Ingots** is a mass of metal cast into a size and shape such as a bar, plate, or sheet convenient to store, transport, and work into a semi-finished or finished product (long & flat);

**Flat Steel Products**  
(mainly used in automobile, domestic appliances, shipbuilding and construction sectors)



## FINISHED PRODUCTS

### Common Long Steel Products:

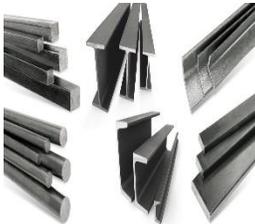
Rebar



Wire Rods



Merchant Bars



Rails



Sections

### Common Flat Steel Products:

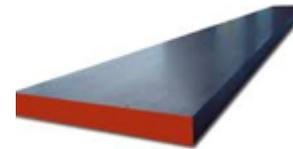
Plates



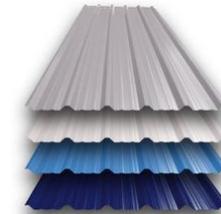
Hot Rolled Sheets



Cold Rolled Sheets

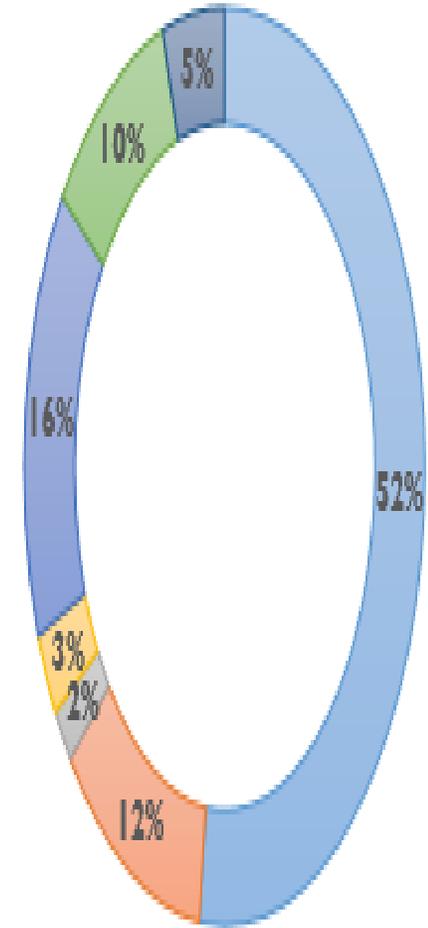


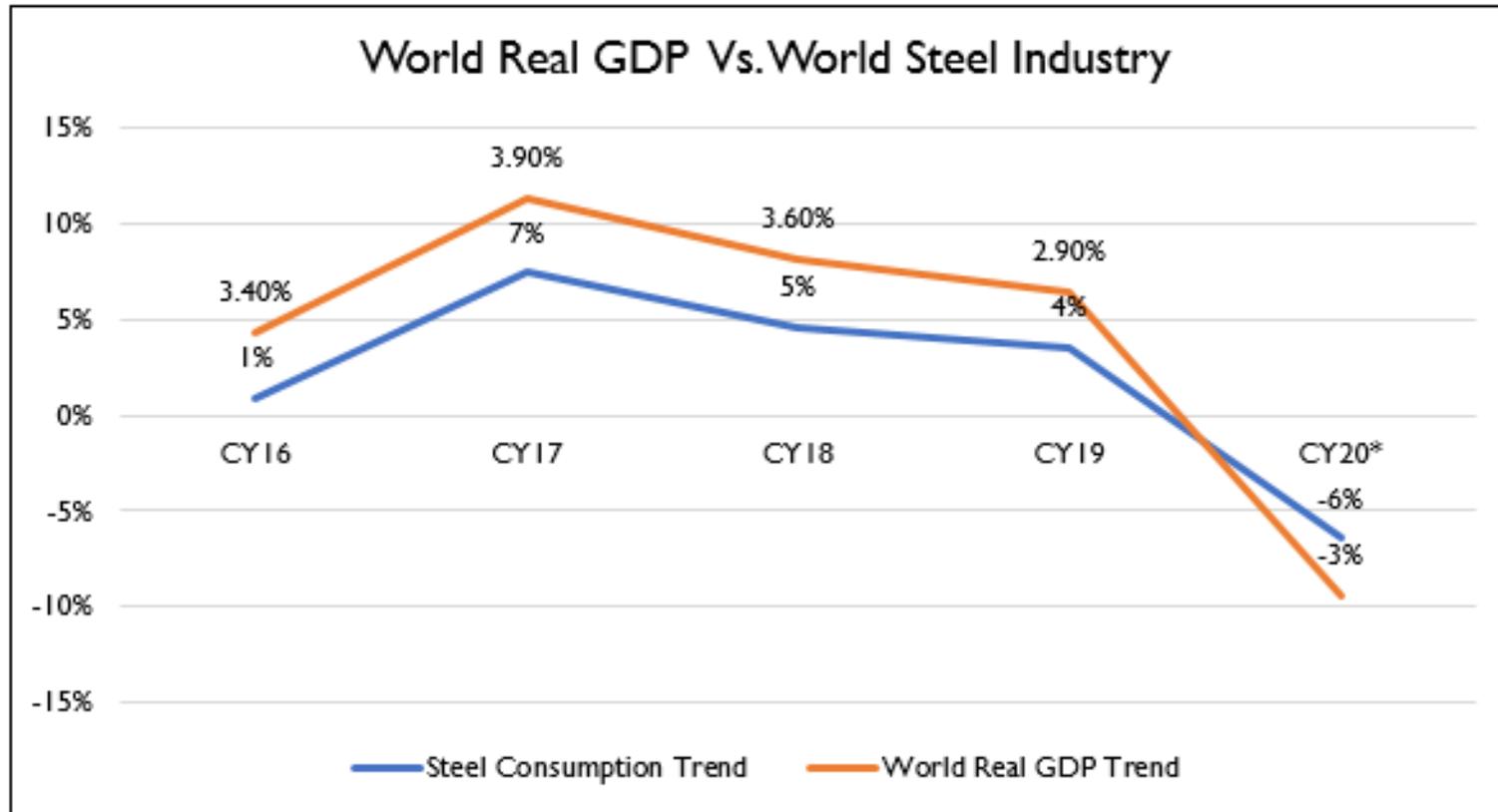
Coated Sheets



## Global Steel Use

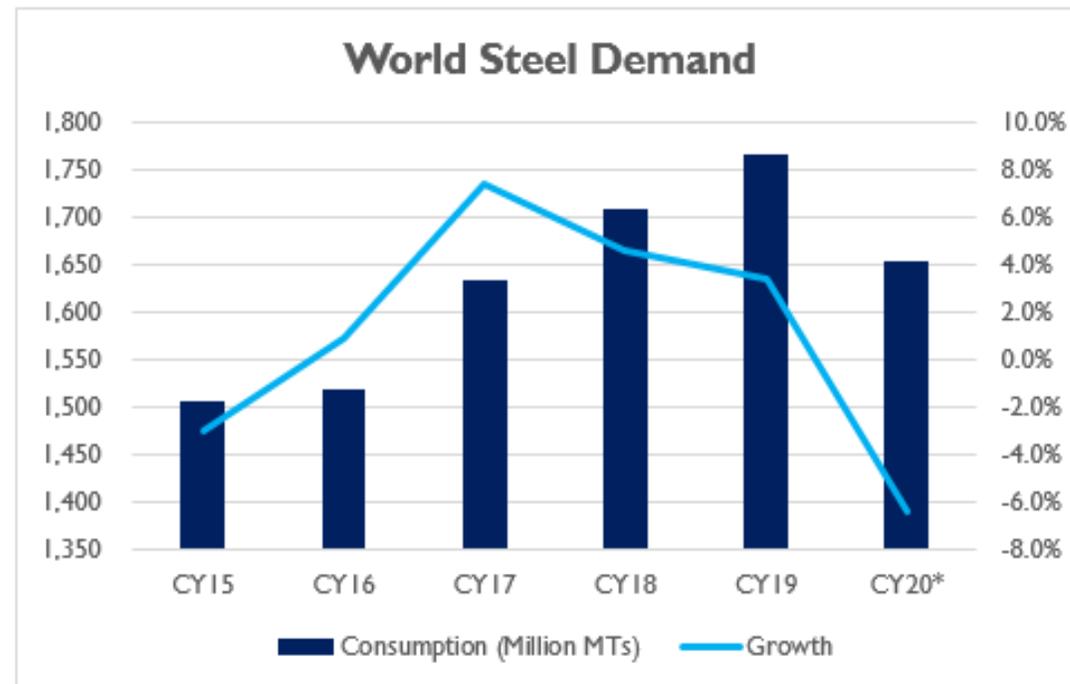
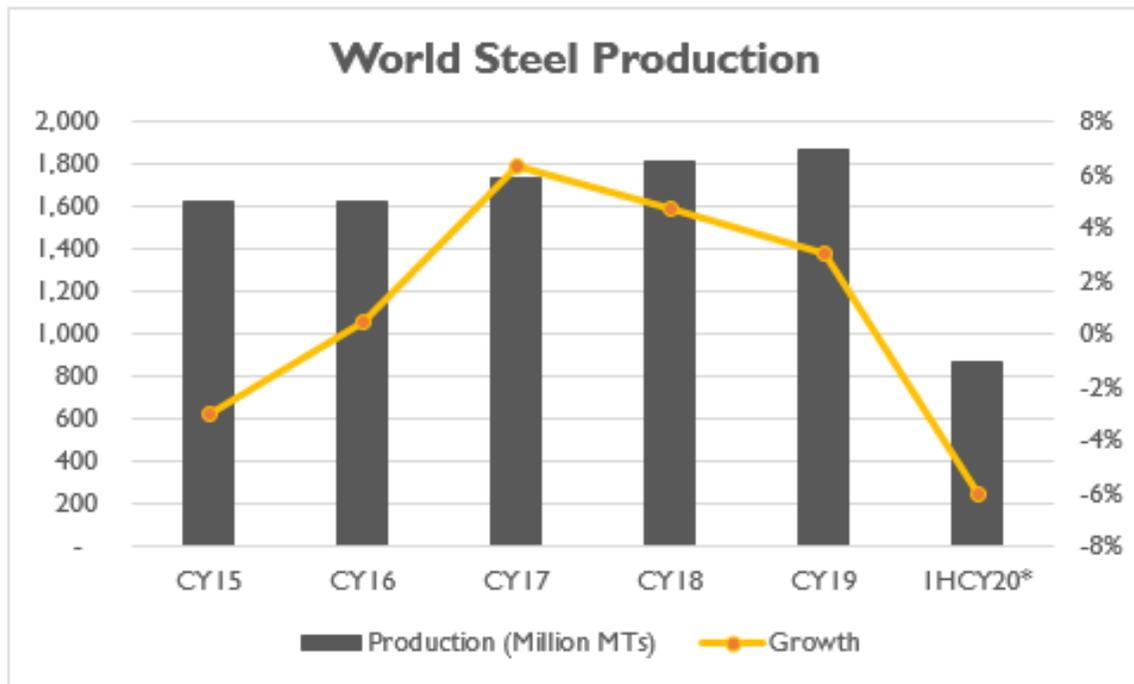
- Building & Infrastructure
- Automotive Industry
- Domestic Appliances
- Electrical Equipment
- Mechanical Equipment
- Metal Products





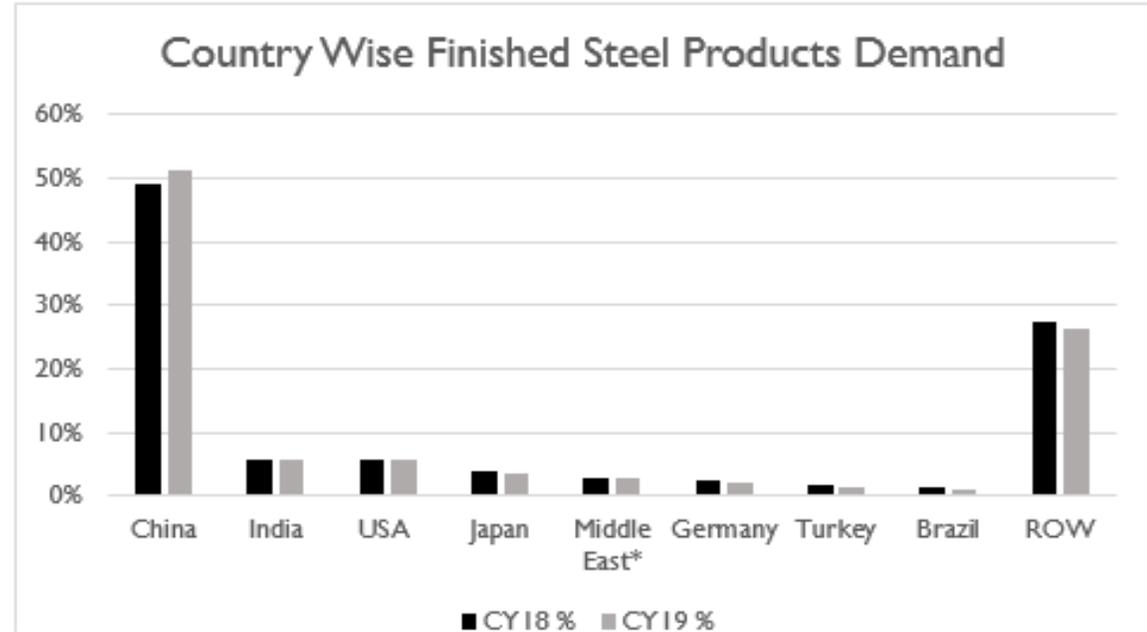
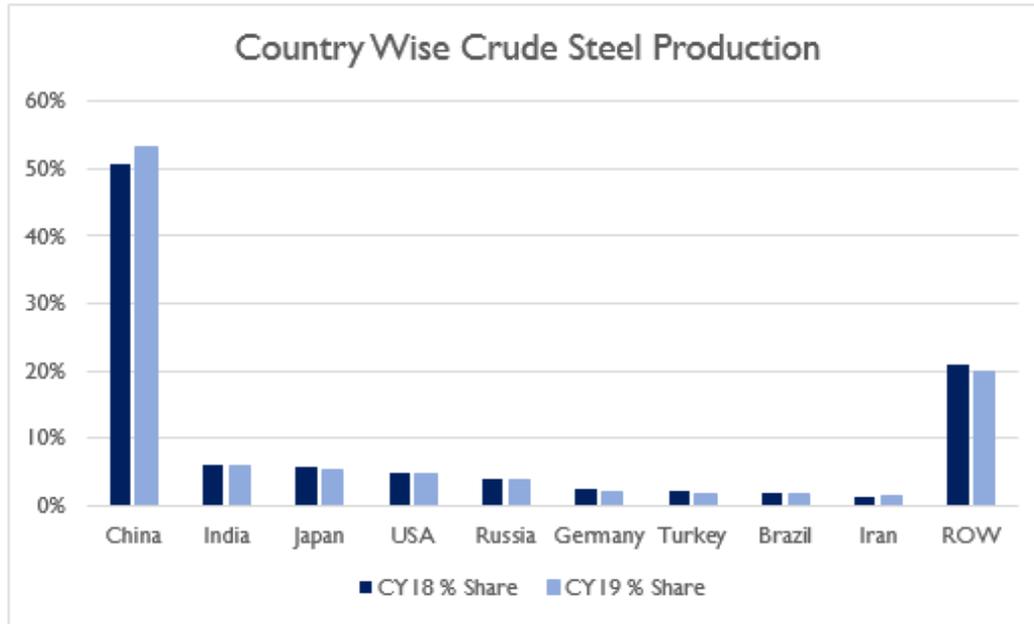
\*estimated

- World GDP and Steel Industry have a direct correlation.
- Average growth rate of the Industry for the last five years was recorded at ~3%. In CY20, Industry is forecast to contract by ~6% in due to Covid-19 impact.



\*Estimated

- World Steel Production took a dip by ~6% in IH CY20 from the same period last year (SPLY). Major decline was witnessed in the regions of EU and North America which went down by ~19% and ~18% respectively. Asia's production (the highest across the world due to China and India contribution) dropped by ~3% from SPLY.

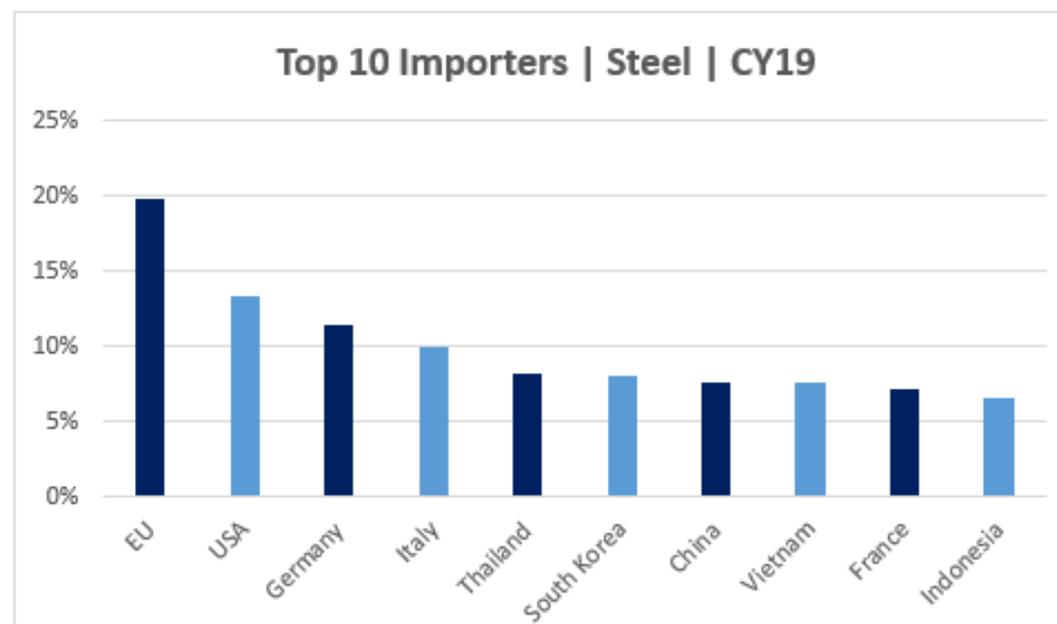
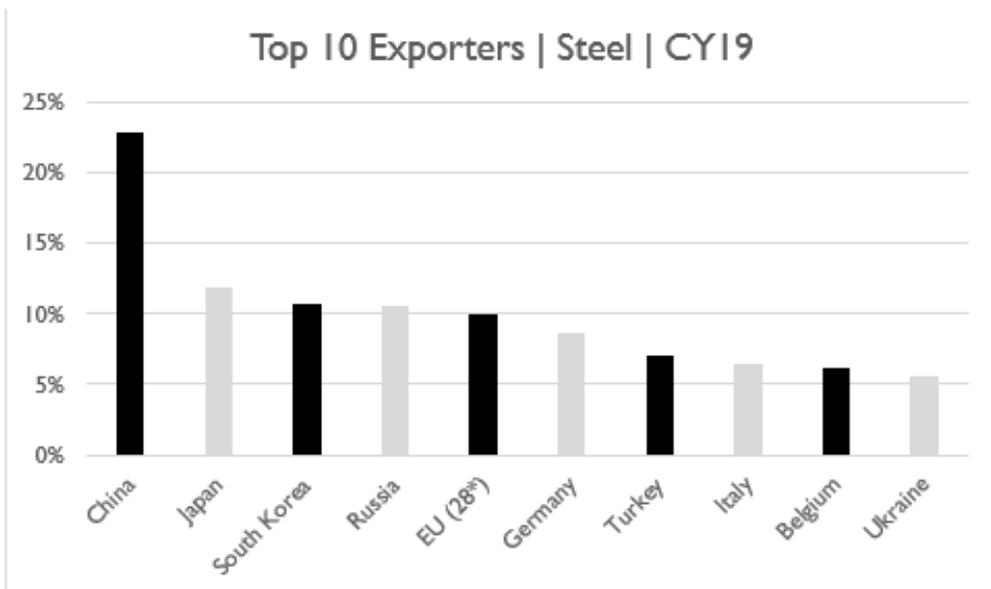


- World Steel production and consumption are dominated by China, which alone accounts for ~53% and ~51% share in global production and consumption, respectively.
- In Covid-19 crisis, China has been the first economy to emerge out of lockdown. Barring a few sectors such as hospitality and tourism, Chinese economy has largely achieved normalization. Therefore, steel demand in China is expected to recover and grow by ~1% in CY20.



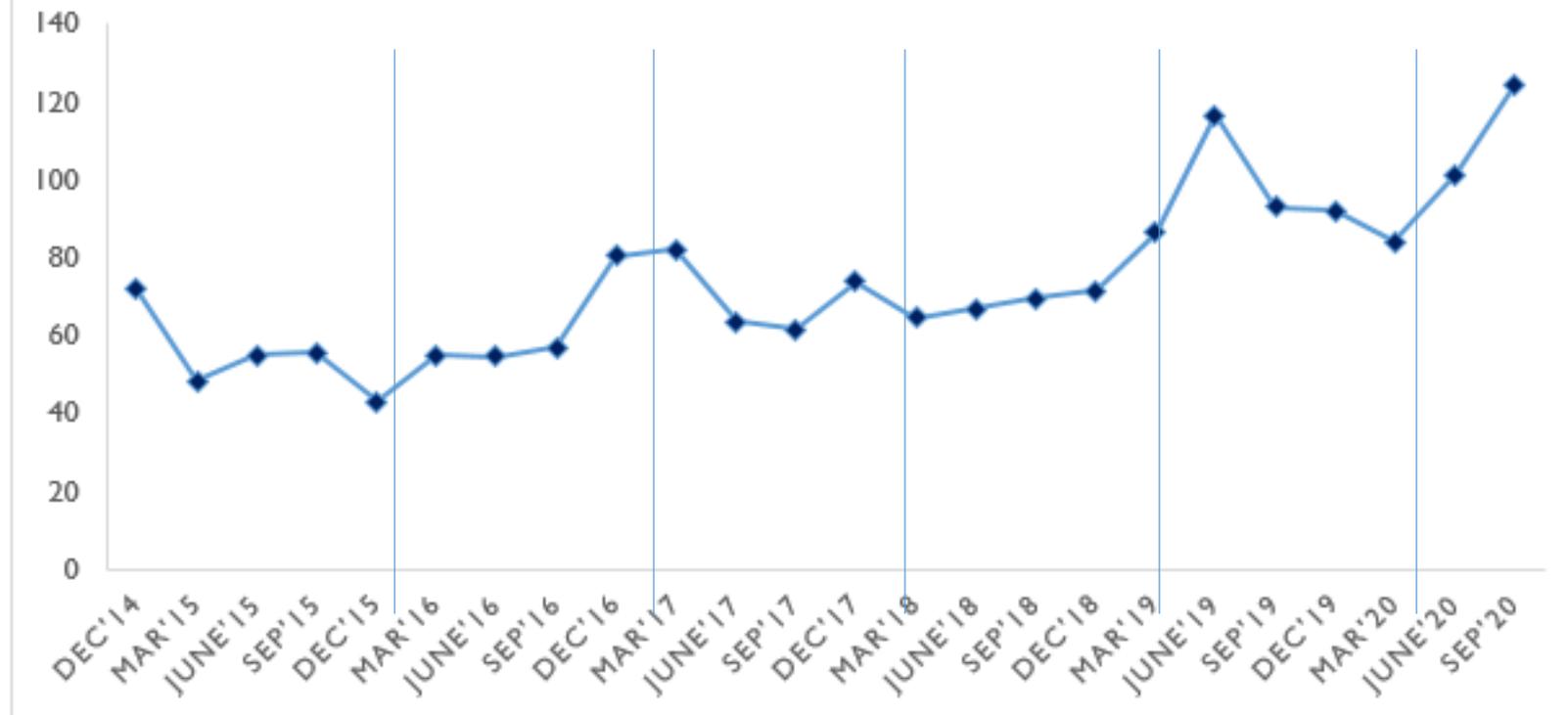
WORLD TRADE (mln MTs)					
Period	CY15	CY16	CY17	CY18	CY19
Trade Volume	467	477	463	457	438
Demand	1,506	1,520	1,633	1,708	1,768
Trade Volume as % of World Demand	31%	31%	28%	27%	25%

Steel is a moderately tradable commodity with ~25% of world consumption catered through Exports/Imports. China is the largest exporter on a **gross** and **net** basis. While for Imports, EU has the largest share on a gross level and USA is the largest importer on a net basis.



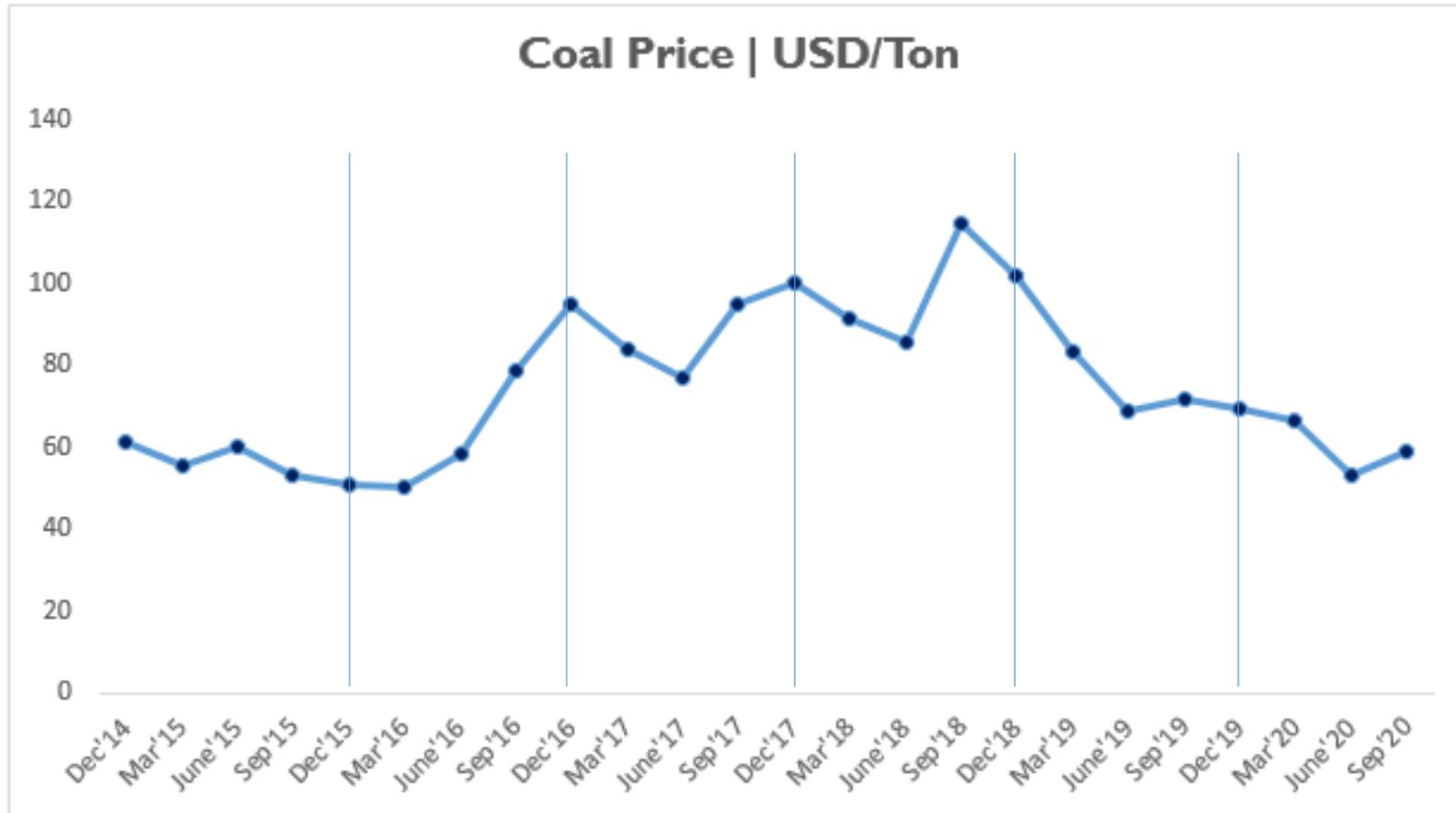
## IRON ORE

### IRON ORE PRICE | USD/MT



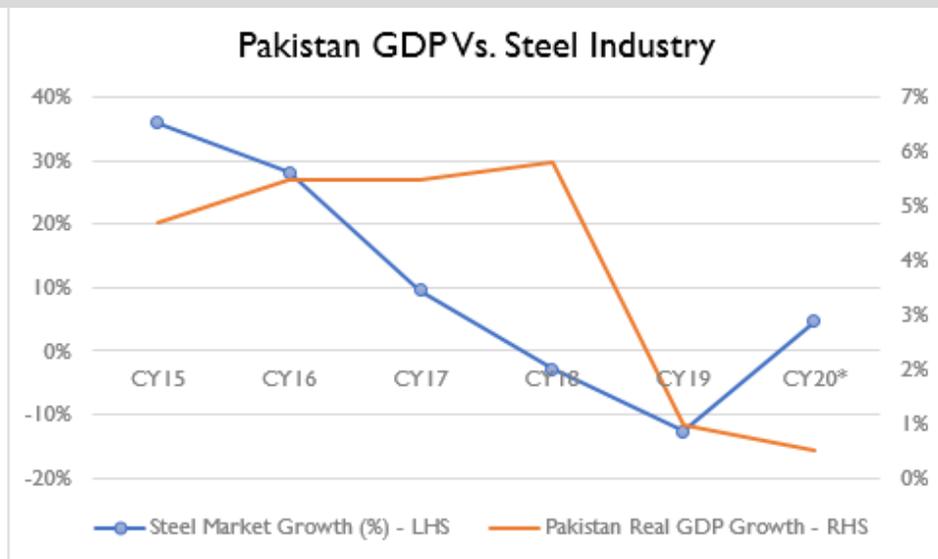
- Iron ore prices refer to Iron Ore Fine China Import C&F price. The biggest producers of iron ore are China, Australia and Brazil. Others include India, Russia, Ukraine and South Africa.
- Price of iron ore reflects an upward yet volatile trend over the years. The prices have moved up from USD75/MT in Dec'14 to approx. USD120/MT in Sep'20.
- Following IH CY19, price of iron ore took a dip owing to manufacturing recession in most of the developed economies. Thereafter, the advent of Covid-19 resulted in a further plunge.
- Currently, the prices are in a recovery phase as the lockdown has eased out in major economies, liberating the demand. Moreover, initiation of infrastructural projects in China has also boosted the demand for iron ore. Prices are, therefore, expected to improve, going forward.

## COAL



- The biggest producer and consumer of coal is China. Other big producers include: United States, India, Australia, Indonesia, Russia, South Africa, Germany and Poland.
- Coal futures are available for trading in the Intercontinental Exchange and on the New York Mercantile Exchange.
- Unlike Iron ore, coal prices have remained on a continual decline from 3QCY18 to June'19. The prices were further compressed on the advent of Covid-19 in the 1H CY20. A major reason for the continual drop in prices is the gradual shift in global fuel preference for electricity generation. The prices have, though, moved slightly up in 3QCY20, as lockdown restrictions were eased up in most of the countries.

- Pakistan Steel Sector is largely fragmented. The organized sector, comprising top 20 players, however, makes up ~80% of the total market.
- Steel Industry has 9 Entities listed on the PSX. These Entities have a major contribution to the local steel production capacity and possess more than 50% share in local sales. Collectively, these entities generated a revenue of PKR~150bln in FY20 (FY19: PKR~168bln).
- Pakistan's annual Steel Consumption hovers around 9mln MTs. There exists a tremendous room for growth in this sector as is evident from the significantly low per capita consumption of steel in Pakistan in comparison to the world average.
- In a developing economy like Pakistan, steel sector is of vital importance for industrial progression, infrastructural developments and construction related projects.
- Despite the inevitable necessity of the Sector's growth, Pakistan's steel Industry has historically lagged behind the desired progression and self sufficiency. The Sector's performance has been continually dented on account of cheaper imports of iron and steel products, hampering domestic market potential significantly.
- Pakistan is an importer of raw iron and steel scrap – the major raw materials used in steel production. Pakistan also imports finished iron and steel products to fulfill the country's demand.



- Pakistan Steel Sector CAGR has been on a declining trend since CY18.
- Per capita steel consumption has decreased from 41kgs in CY18 to 35kgs in CY19 owing to overall demand contraction of steel industry.

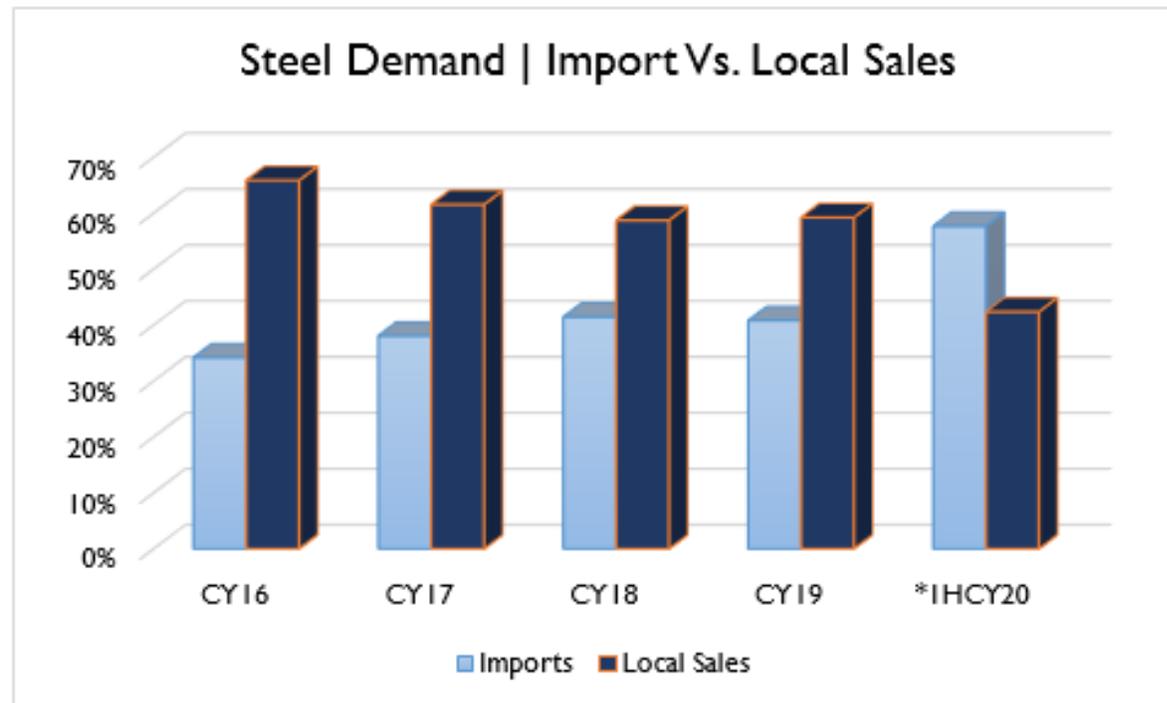
SNAPSHOT						
Per Capita Steel Consumption	CY15	CY16	CY17	CY18	CY19	CY20*
In Kgs - A	32	40	43	41	35	36
In MTs (A/1000) - B	0.032	0.04	0.043	0.041	0.035	0.036
Country Population (Mln) - C	199	204	208	212	217	221
Total consumption Mln MTs - B*C	<b>6.4</b>	<b>8.2</b>	<b>8.9</b>	<b>8.7</b>	<b>7.6</b>	<b>8.0</b>
Steel Market Growth (%)	36%	28%	10%	-3%	-13%	5%

\*estimated

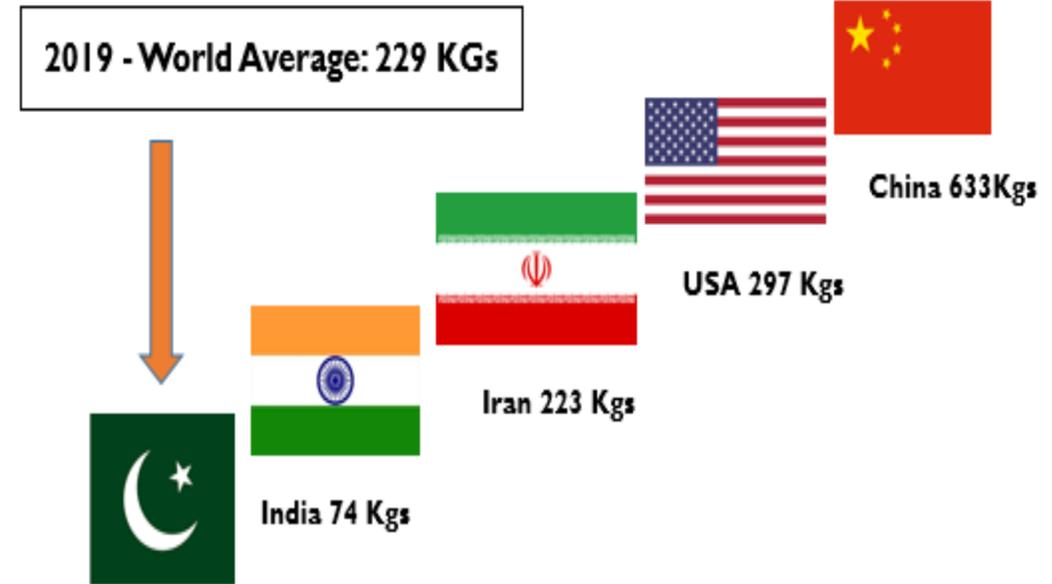
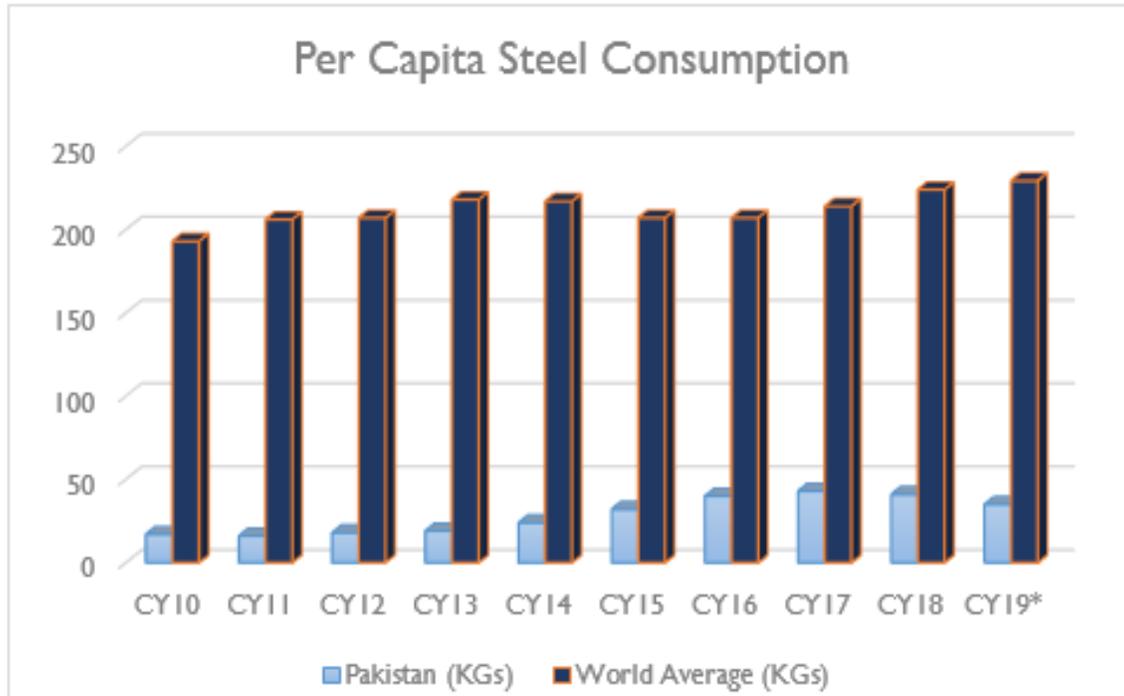


Million MTs	CY16	CY17	CY18	CY19	*1HCY20
<b>Consumption</b>	<b>8.2</b>	<b>8.9</b>	<b>8.7</b>	<b>7.6</b>	<b>4.0</b>
Imports	2.8	3.4	3.6	3.1	2.3
Local Sales	5.4	5.5	5.1	4.5	1.7

\*consumption figure for 1HCY20 is calculated assuming an even growth rate of 5% for



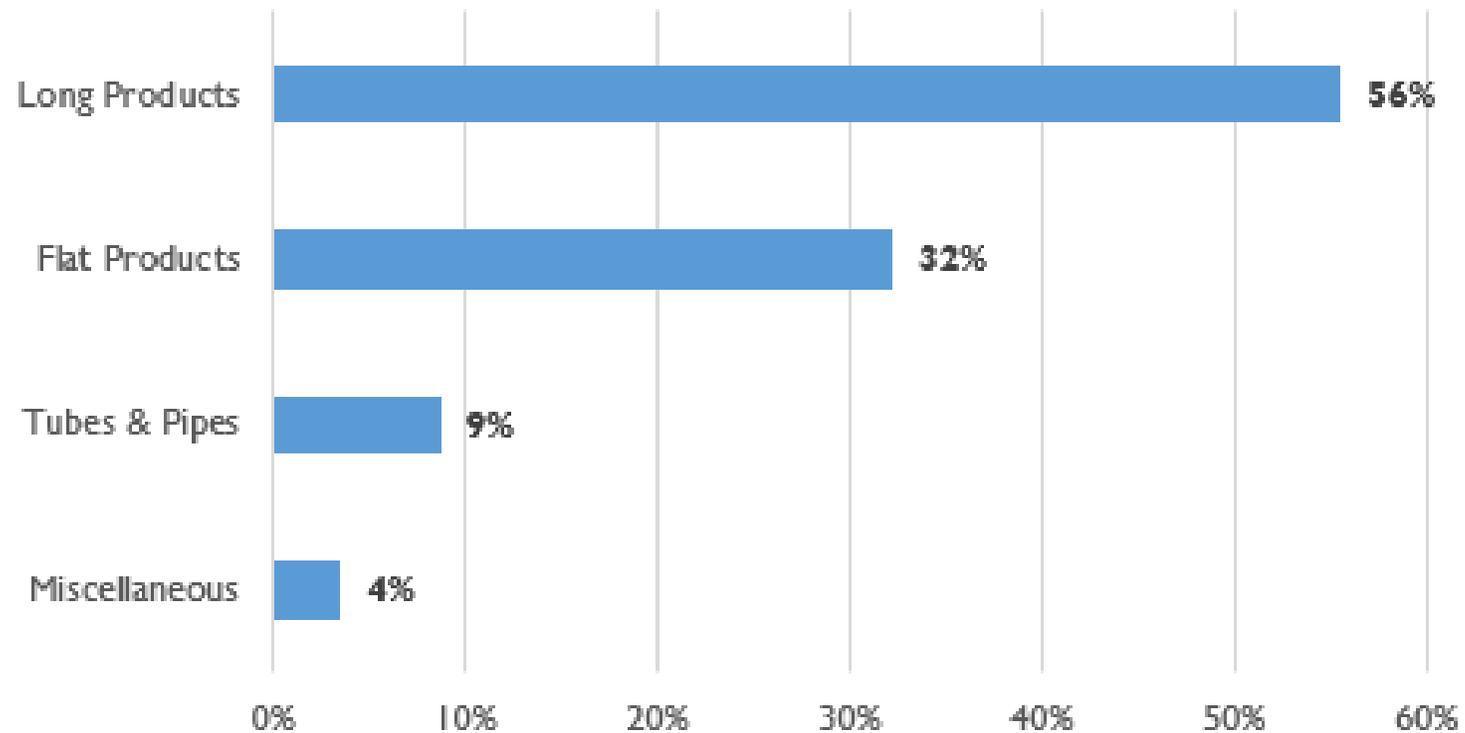
- Pakistan's total steel demand is met through local sales and imports.
- Growth of domestic industry is hindered on account of dumped steel imports from China, Russia and Ukraine.
- Some protection is provided to the domestic steel industry through imposition of custom and regulatory duties.
- Most of the Steel Players have lately enhanced their plant capacities. However, capacity utilization levels still remain low due to import disparity.



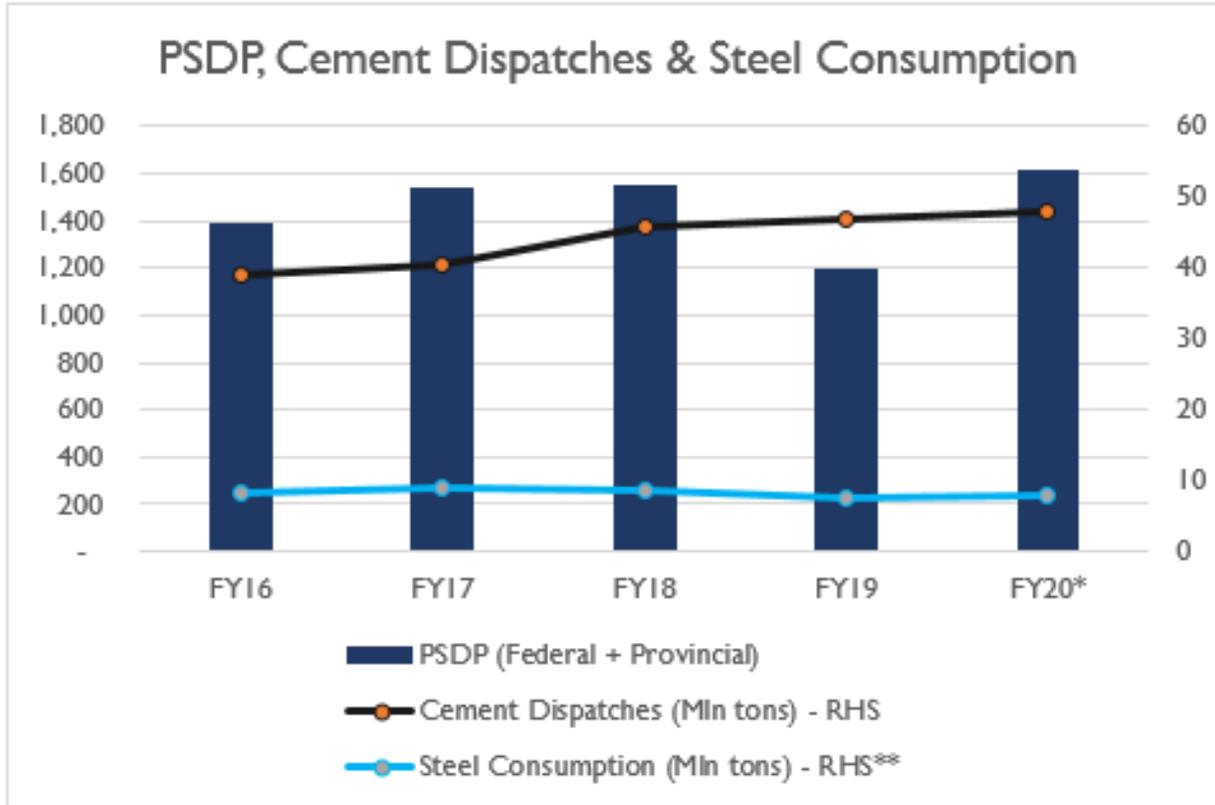
- Pakistan's per capita steel consumption stands at ~35Kgs; significantly lower than the world's average of ~229Kgs, indicating an immense potential of growth in Steel Sector for Pakistan.
- Per capita steel consumption for CY20 is estimated at ~36Kgs.
- Lower per capita consumption is on account of lower trend of investment in high end construction grade and automotive projects.



## Steel | Product Portfolio



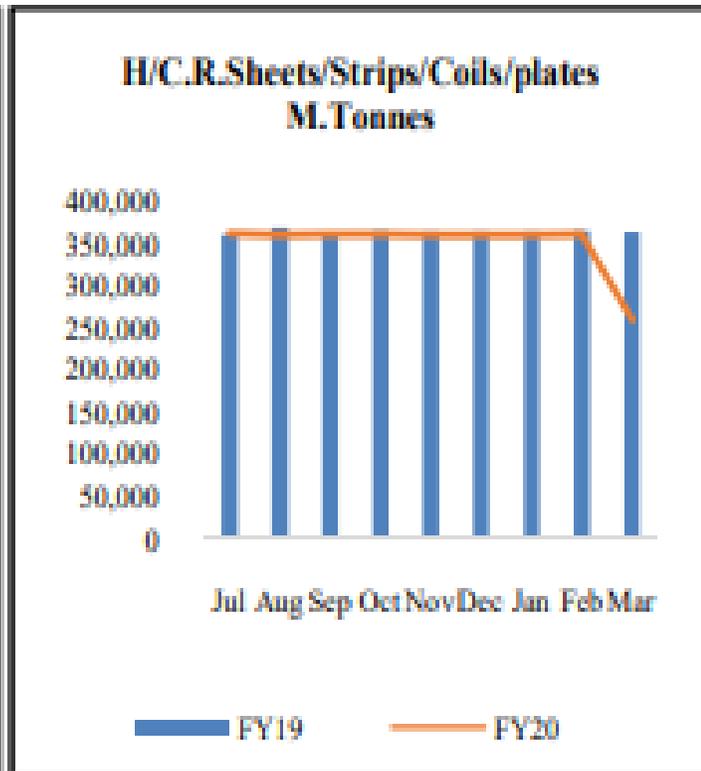
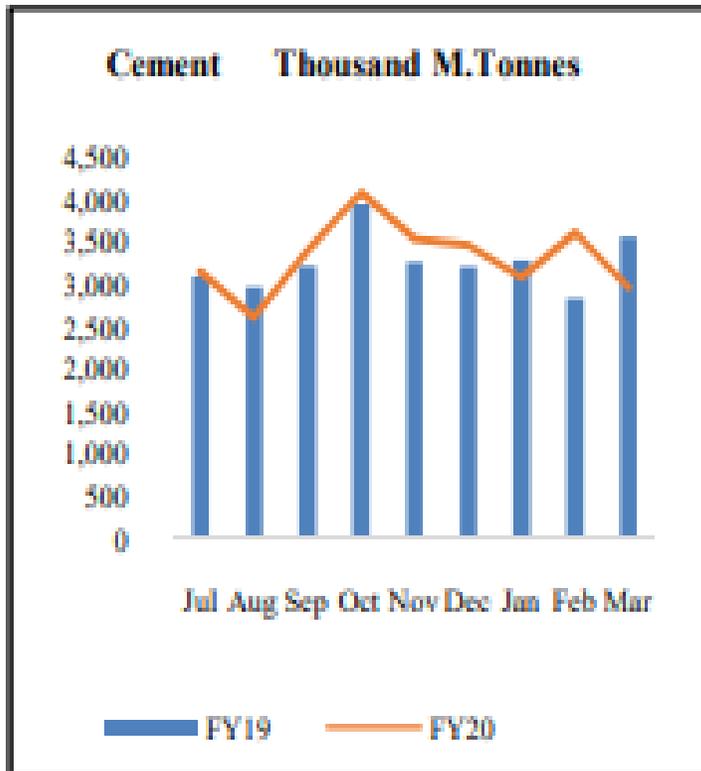
- Major steel consumption is concentrated in the construction sector in which long steel products such as merchant bars, rebars and wire rods are used.



\*FY20 cement dispatches for 11 months

\*\*steel consumption is based on CY

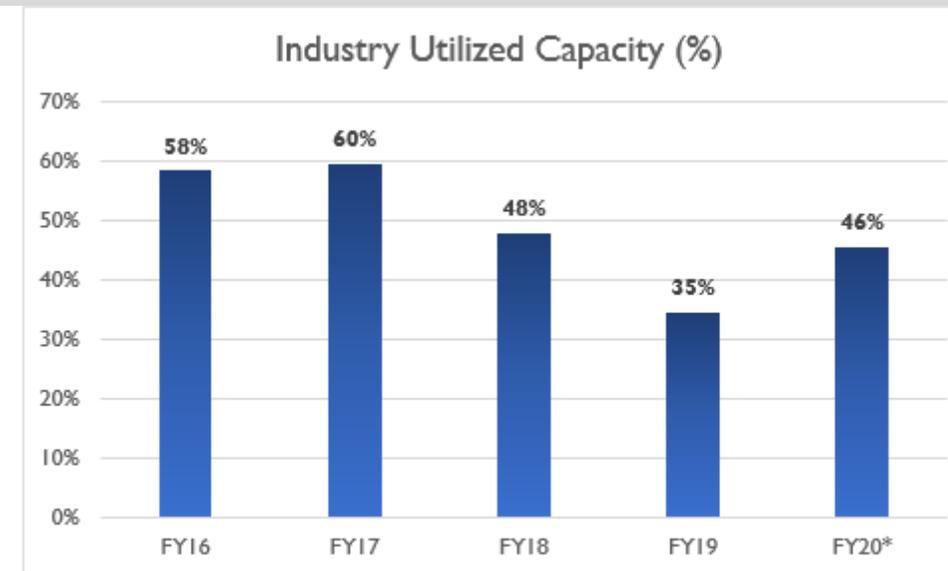
- Steel and Cement Industry have a strong correlation. Offtake of Steel products is directly linked to the cement dispatches as both industries are majorly driven by construction activity.
- As per International Standards, every 5MTs of cement used in infrastructure projects requires 1MT of steel (Source National Steel Advisory Council).
- A decline in PSDP allocated funds was witnessed in FY19 in comparison to the past years as a repercussion to the measures taken by the GoP to manage macro-imbalances. Likewise, steel demand had also declined sharply in FY19.



- Iron and Steel products hold a weight of 5.39 on the LSM Index, Overall, the segment slowed down by ~8% in 9MFY20 (~11% SPLY). The decline was more visible in Billets/Ingots which fell by ~13%, owing to subdued construction activities mainly due to high financing cost.
- Strips/Coils/plates have the highest weight in iron & steel products. These products witnessed a decline of ~4% during 9MFY20.



Top 8 Listed Players   Annual Installed Capacities - (MTs)				
Company	FY16	FY17	FY18	FY19
Amreli Steels	380,000	380,000	1,005,000	1,205,000
Mughal Steels	482,282	786,912	786,700	785,900
Aisha Steel	220,000	220,000	220,000	700,000
International Steels	1,012,000	1,096,000	1,546,000	1,546,000
International Industries	610,000	745,000	741,200	812,400
Huffaz Pipeline	153,500	153,500	153,500	153,500
Dost	350,000	350,000	350,000	350,000
Crescent	66,667	66,667	66,667	66,667
	<b>3,274,449</b>	<b>3,798,079</b>	<b>4,869,067</b>	<b>5,619,467</b>

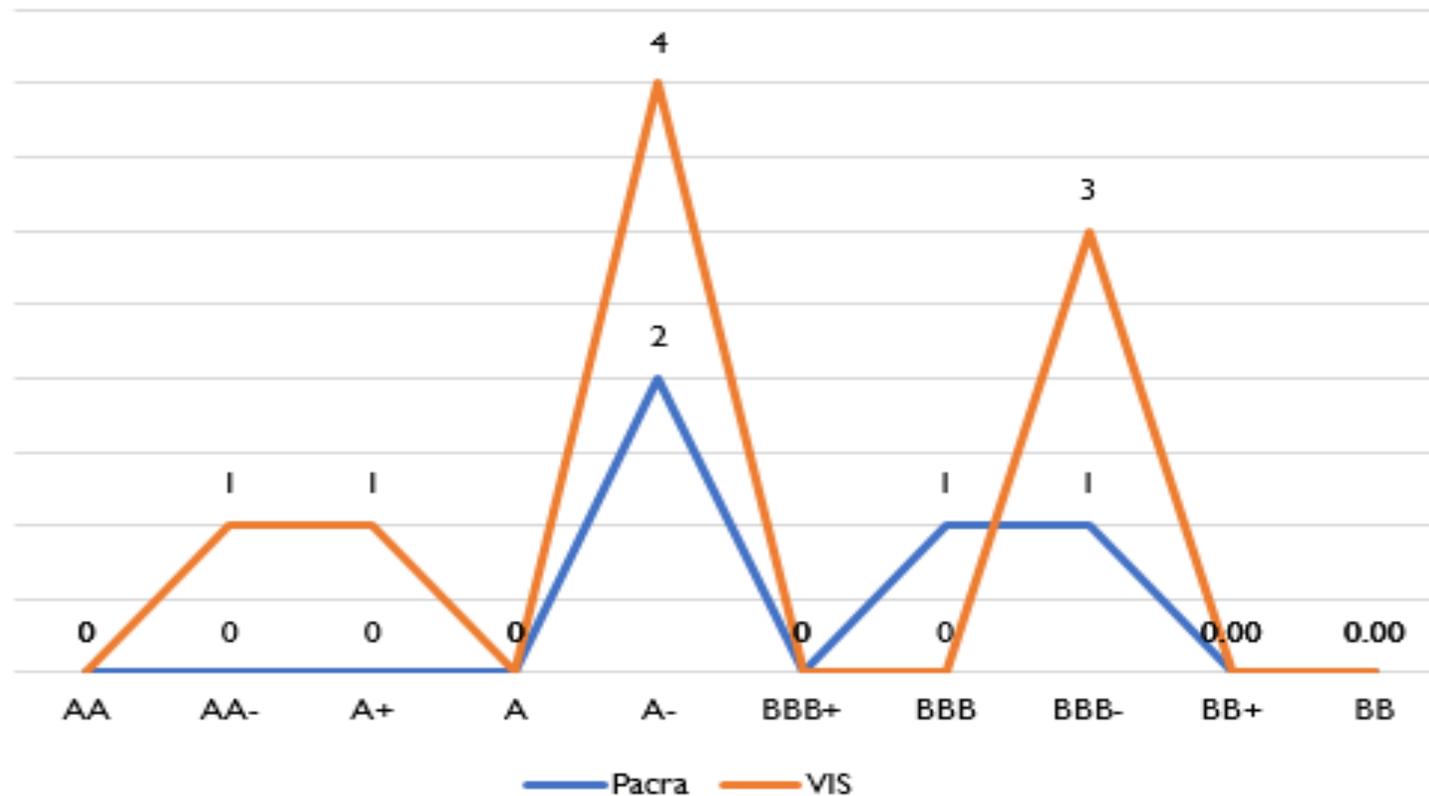


\*estimated

- Installed capacity of top 8 players of the Industry stood at ~5.6mln MTs in FY19. Total Installed capacity of the Industry has reached to approx. 9mln MTs (including Pakistan Steel Mills – 1.1mln MTs – non operational since 2015).
- Most of the top players have achieved significant capacity enhancements in the past years.
- Lowest utilized capacity was recorded in FY19 @~35%.

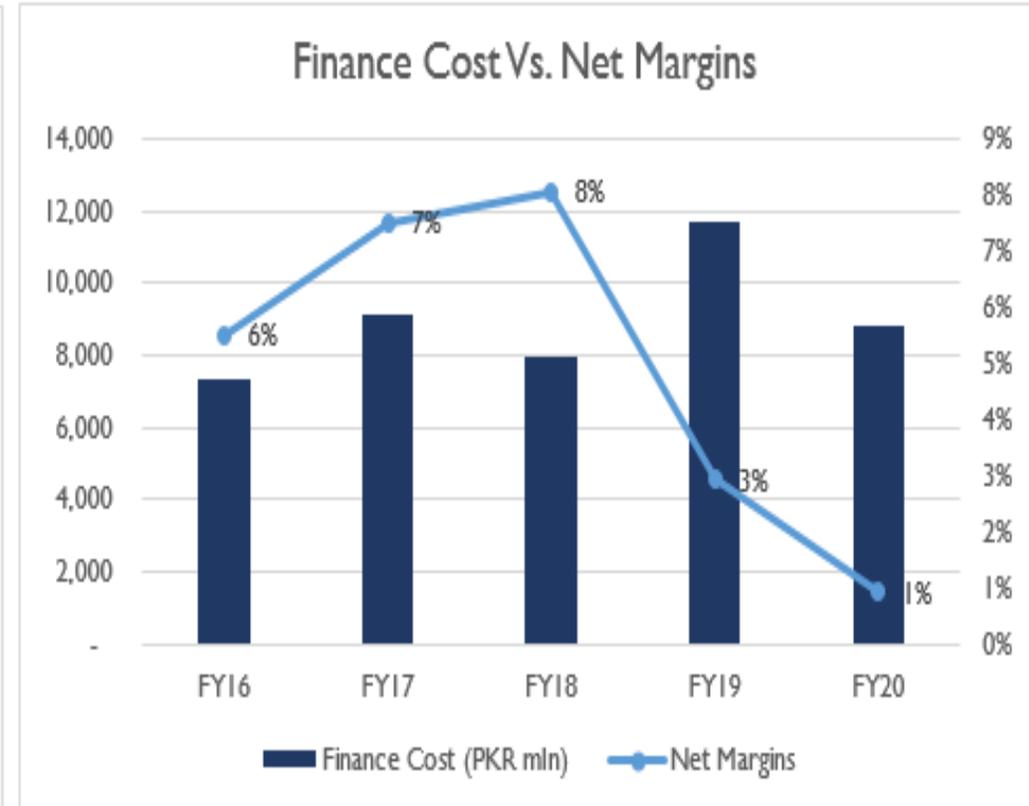
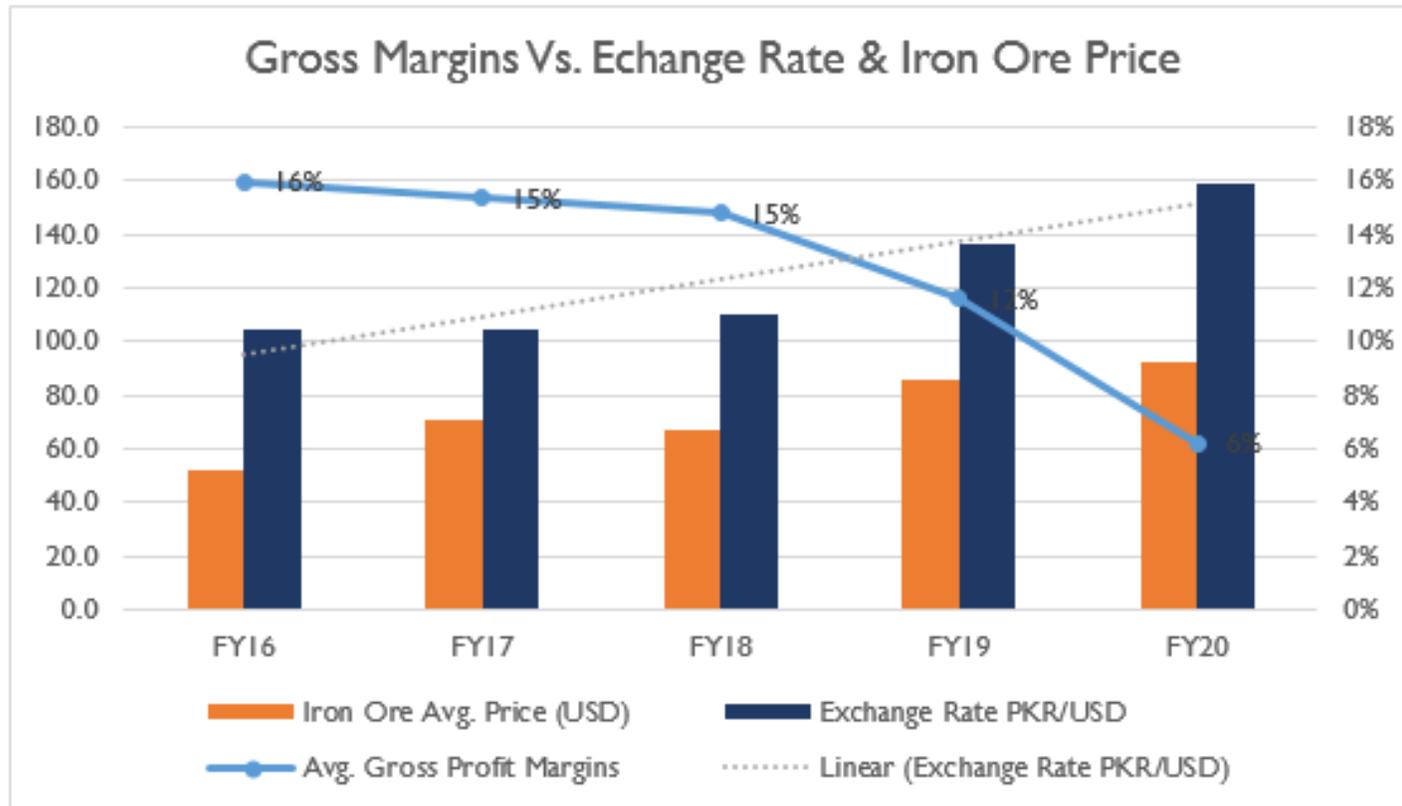
\*FY20's capacity utilization is extrapolated using growth in annual installed capacity in FY19.

## Steel Sector Rating Curve PACRA & VIS

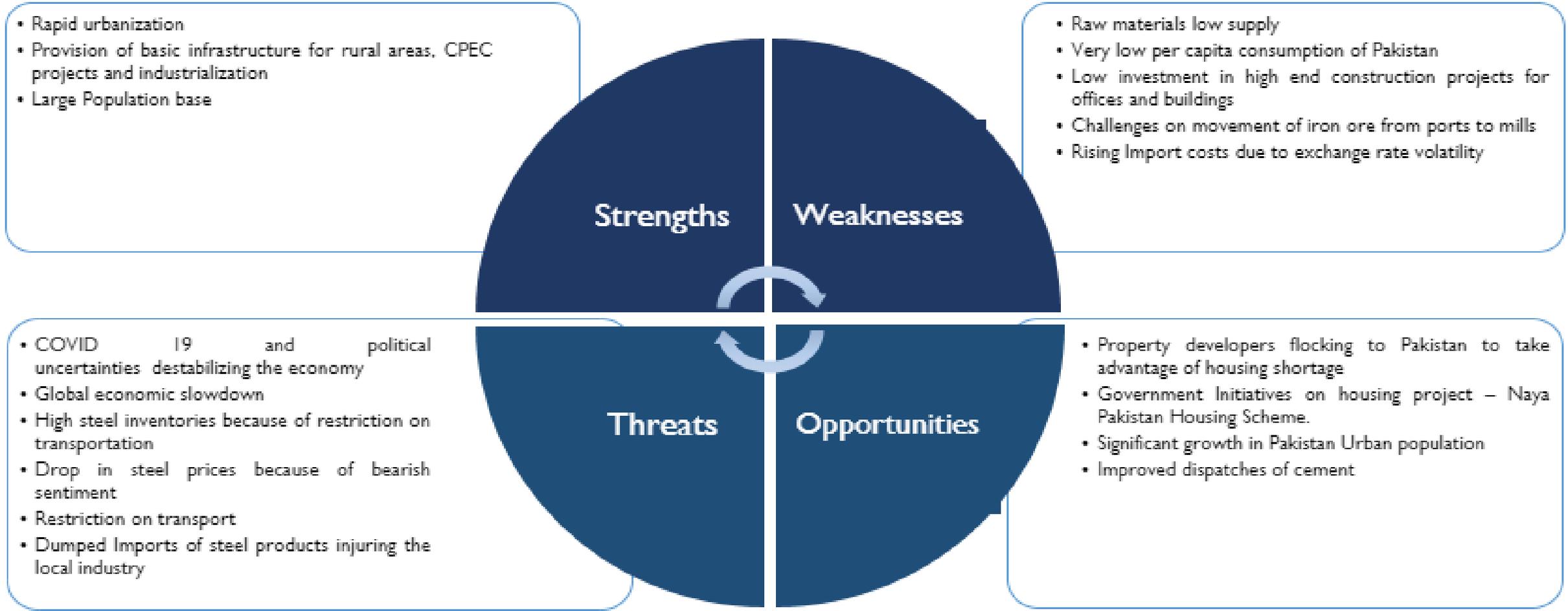


- Steel Sector has a broad rating bandwidth with the lowest long term rating falling in BBB- notch and highest rating in AA-.
- PACRA rates 4 Steel Entities.

- **Low Margins – High Cost of Doing Business:** Steel is a partially local and import dependent business since Pakistan imports the major raw materials of production, majorly from China. The Industry is subject to exchange rate volatility and international price behaviors. Currency depreciation by approx. ~4% in 9MFY20 had directly impacted the gross margins of the Industry.
- **Import Substitution – Little Protection to the Industry:** Following FY18, some protection was provided to the domestic Industry through imposition of anti-dumping duties on certain Chinese and Ukrainian suppliers for a period of five years. However, this measure was not sufficient enough to curb the disparity of dumped import items and local production. Recently, in the out turn of an investigation conducted by the National Tariff Commission (NTC) (March'20), further anti-dumping duties are levied on imports from Canada and Russia as well, in addition to the duties already in place.
- **Finance Costs:** Steel Industry has high working capital needs, therefore is largely dependent on external sources of funding. Increase in cost of borrowings adversely impacts the performance of the players.
- **Demand Volatility:** Although steel is an essential sector for economic growth, its offtake is largely dependent on infrastructural spending and automobile sector performance. Any downside to these bears a direct impact on the Steel offtakes.



*\*Analysis is based on a sample of 7 Listed Players*



- With respect to Income Tax, the steel sector is under the Normal Tax Regime (NTR). Further, the sector is also subject to Minimum Tax @ 1.5% of turnover, if tax liability under NTR is lower than minimum tax. However, the additional tax paid under minimum tax is adjustable against future tax liabilities for the next 5 years.
- Section 8B of the Sales Tax Act is implementable on Steel sector. It states that input tax amount, exceeding 90 percent of the output tax for a period shall not be allowed to be adjusted in that period and will be carried forward to next tax periods.
- Withdrawal of fixed sales tax facility, permission grant to wire rod manufacturers from steel sector has adversely affected the sector.
- National Steel Advisory Council, Pakistan Association of Large Steel Producers (PALSP) and Pakistan Steel Re-Rolling Association, acts as the associations of steel sector in the country.
- Duty structure of the sector provides protection to the local sector, as depicted in duty structure table.

PCT Code	Description	Customs duties		Regulatory duties		Total Duties	
		2019-2020	2018-2019	2019-2020	2018-2019	2019-2020	2018-2019
7204.3000	Scrap	0%	3%	5%	5%	5%	8%
2619.0000	Billets	3%	3%	15%	15%	18%	18%
7228.1000	Rebar	20%	11%	30%	30%	50%	41%
7228.3010	Hot Rolled Coil	20%	20%	30%	30%	50%	50%
7304.3100	Cold Rolled Coil	16%	16%	13-19%	13-19%	29-35%	29-35%

<sup>A</sup>last year numbers



- Steel is a low margin business. Average GP margin stands at ~13% (based on financial results of 7 listed entities for a period of five years) while average net margins clock in at ~5%. A gradual decline in industry margins is reflected on account of increasing operating costs. FY20 and FY19 depicted modest net margins at ~1% and ~3% respectively.

## **Working Capital:**

- The Industry's working capital needs are high. Cash Conversion cycle is slow as average net working capital days go beyond 3 months (90 days). With rising inventory levels due to lower demand, reliance on short term borrowings was increased in FY20. Consequently, finance cost also went up due to rising interest rates till 9MFY20

## **Debt Servicing & Capital Structure:**

- Total Borrowing of the Industry (as per SBP data) stood at PKR~143bln (June'20). Borrowings mix (based on listed entities results) comprise ~71% STBs and ~29% LTB. The Borrowings are further classified into the following major components:

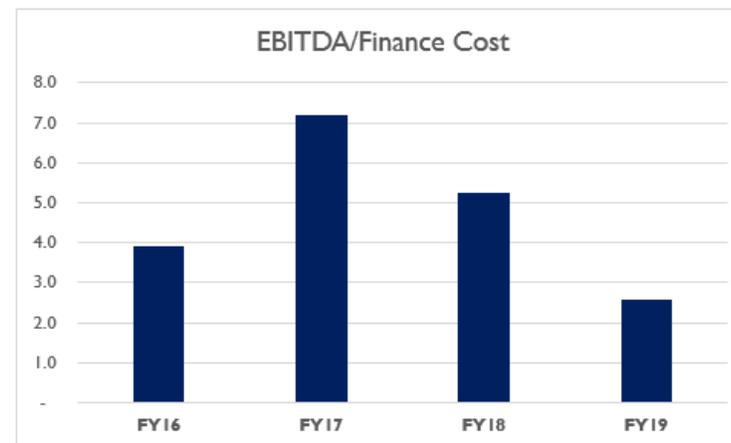
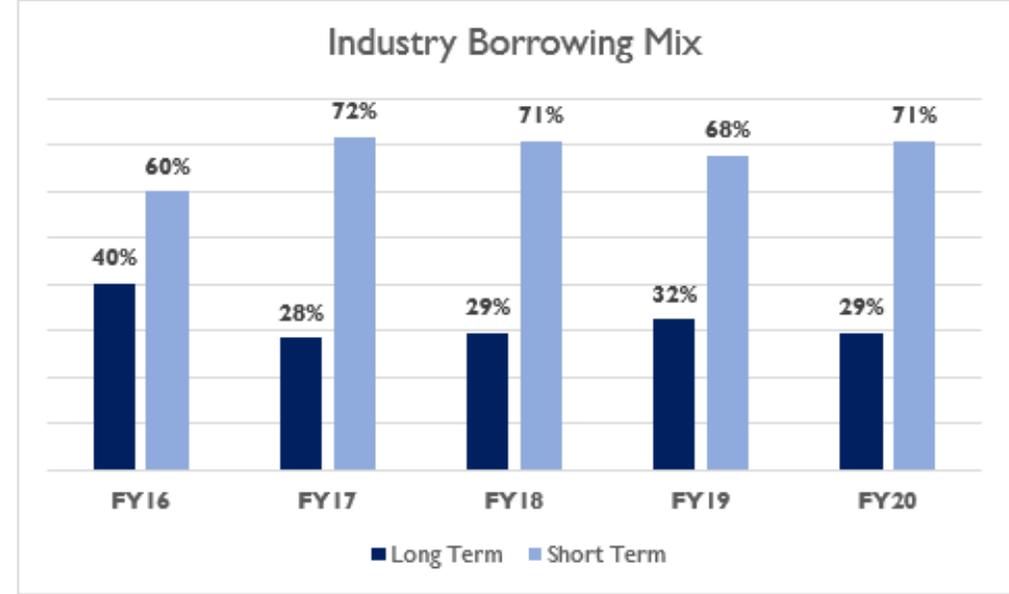
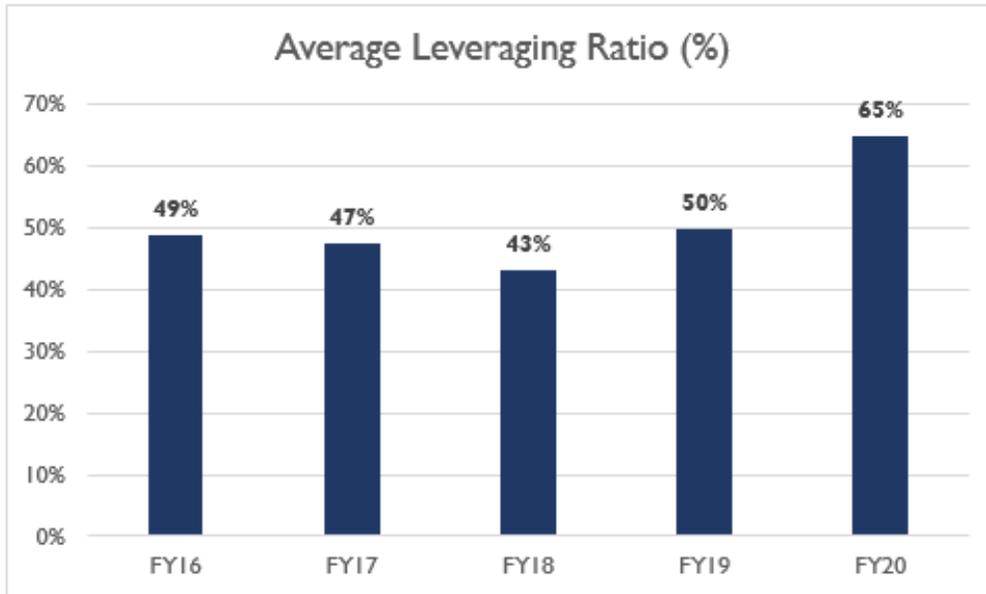
### **Short Term:**

- Short term Finance Under Markup Arrangements

### **Long Term:**

- Conventional Loans & Islamic Financing
- Long Term Financing Facilities (LTFF).
- Historically, Steel has been a moderately leveraged Industry with average Debt to Equity Ratio of ~49%.
- Leverage has gone up to ~65% in FY20.

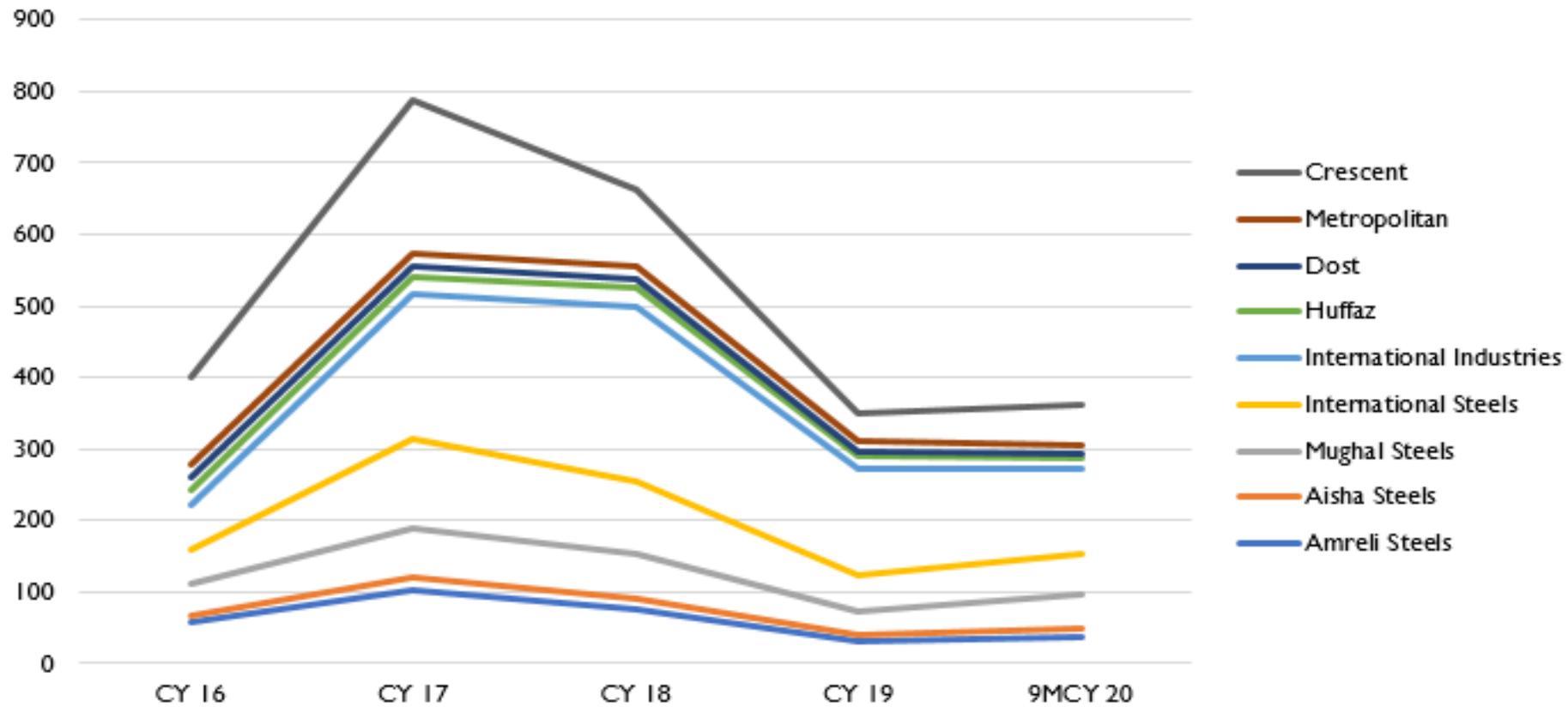




*\*Analysis is based on a sample of 7 Listed Players*



## Steel Sector Average Share Prices



## **IMPACT**

- Steel Sector was undergoing a challenging time prior to the advent of Covid-19. This was mainly attributed to low demand due to subdued construction activities and high financing costs. Additionally, rupee devaluation by ~3.9% also pressured the margins of the sector.
- With the advent of Covid-19, construction activities and automobile sales took a halt, directly impacting the offtakes of related sectors, including steel and cement. This led to pile up of stocks within the Steel Sector as at June'20 end.
- Average raw material inventory available to the Sector players is of approx. 2 months. Reduction in raw material prices due to global demand contraction during Covid-19 is expected to reflect positively, going forward.

## **SBP Measures In Response to Covid-19 applicable to the Sector:**

- SBP has eased 100 percent cash margin requirement on the import of certain raw materials to support manufacturing and industrial sectors and further enhance their capacity to contribute towards the recovery of the economy in post COVID-19 era.
- SBP has also enhanced the limit of refinancing provided to the banks under Exports Finance Scheme (EFS) by Rs 100 billion. Hence, banks will now have overall limits of Rs 700 billion for the exporters for FY21. Moreover, to promote export oriented investment, Rs 90 billion have also been allocated under Long Term Financing Facility (LTFF) for FY21.
- SBP has further facilitated the exporters and importers by allowing extension up to 180 days in settlement of their export and import loans under FE-25 Scheme
- Reduction in policy rate by 625 basis points since 17th March, 2020 to 7 percent.



## OUTLOOK: STABLE

- With Cement dispatches improving in July'20 and onwards steel demand is expected to improve.
- NTC's decision to impose anti-dumping duties on imported cold rolled coils/sheets/strips from Canada and Russia is expected to provide further protection to the local Industry. This is in addition to the anti dumping duties already imposed on manufacturers in China and Ukraine.
- As per the Budget 2020-21, including reduction of custom duty on certain steel making raw materials, reduction in regulatory duty from 12.5% and 17.5% to 6% and 11% respectively on Hot Rolled Coils (HRC) of Iron and steel falling under PCT codes 7208, 7225 and 7226 and Tariff Rationalization under NTC, 2019, are expected to benefit the Industry, going forward.
- Recovered Iron ore price (May'20 onwards) in the global market is expected to impact cost of the Sector.
- With a policy rate cut by 6.25%, the Industry is expected to liberate approx. PKR~8.9bln of finance cost (*annual basis*) - a breather to the profitability.
- Provided cost and demand behaviors remain stable, capacity utilization of the players is expected to improve following enhanced duty protection to the Industry.

- World Steel Association
- World Bank
- Pakistan Bureau of Statistics (PBS)
- Federal Board of Revenue (FBR)
- Securities & Exchange Commission of Pakistan (SECP)
- Business Recorder
- National Steel Advisory Council
- Trading Economics
- State Bank of Pakistan (SBP)
- Pakistan Stock Exchange (PSX)
- Statista.com

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