



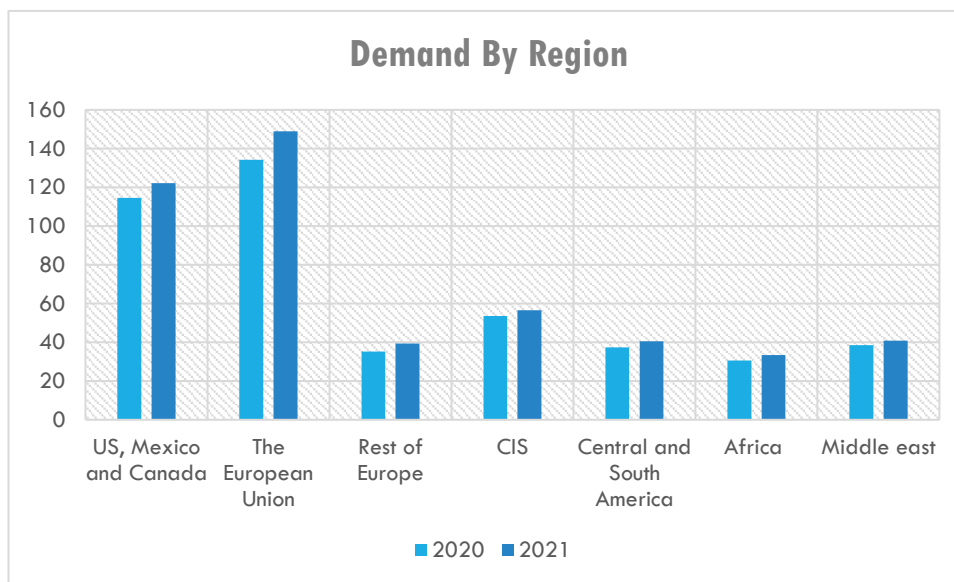
**EQUITY RESEARCH REPORT**  
**TEAM 22**

## Sector Overview

The steel industry is one of the largest and the most robust industries in the world. It is a capex intensive industry requiring huge investments in coal and iron ore. Just to give a perspective of this, the global steel industry is worth a whopping Rupees 66,050,000,000,000. That is sixty trillion fifty billion Indian rupees.

The demand for steel on global terms for the year 2020 is 1725.1 million tonnes. There was a 2.4% decline compared to the global demand from 2019 which was 1766.5 Million tonnes. However, The World Steel Association which is the global regulatory body has made an estimate that the demand for steel will once again rise to 1795.1 million tonnes in 2021 and thereafter will grow at a rate approximate to 3.4% every year.

### **Exhibit – Demand by region in the world (In million Tonnes)**



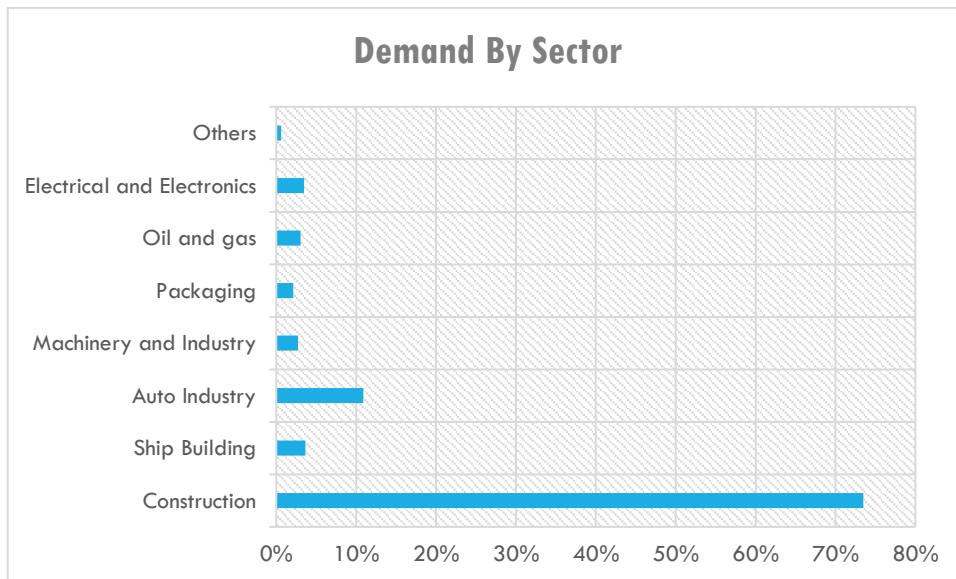
As you might have observed, the data for Asia has been left out of the graph above. This is because by statistical norms, it would have been considered as an outlier. The demand for steel in the Asian economy for 2020 was around 1280.9 million tonnes and is estimated to be approximately 1313.1 million tonnes for the year 2021.

The following are the applications of steel and the sources of its demand –

1. Construction – The construction industry is the largest consumer of steel in the world. Steel goes into the making of the pillars and the moulds required in construction. Therefore, the demand cycle of steel is pretty much in line with the condition of the construction market. When the economy is booming and people are buying houses, the steel industry will do well.
2. Automobile industry – Steel is one of the most important raw materials in the auto industry. It goes into making the bodies of the cars. We can see another common characteristic here. Both construction and the auto industry are sectors that will do

well when the economy is booming. Therefore, the steel industry shares the same features as well.

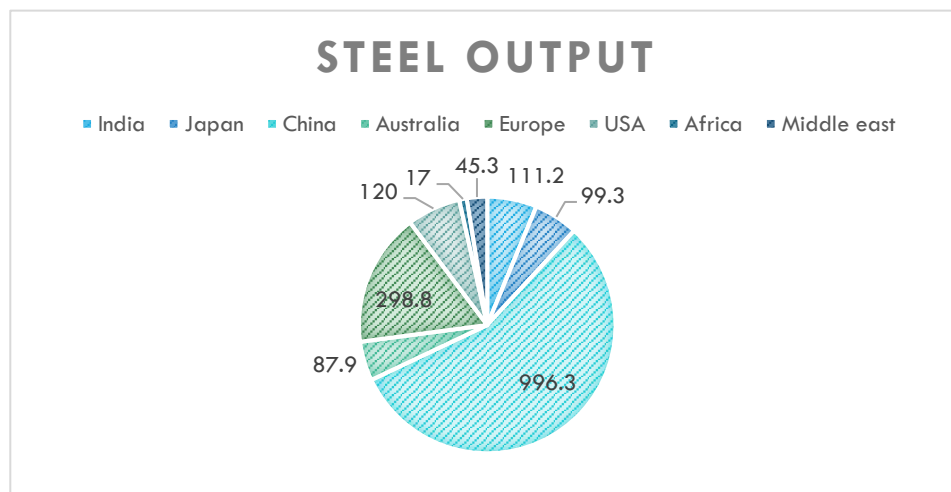
## Exhibit – Demand by Sector (Normalised)



On the manufacturing front, China is the largest manufacturer of steel in the world. But at the same time, China is also the largest consumer of steel in the world. China accounts for more than half of the world's steel manufacturing. India is the third largest manufacturer of steel in the world. However, the difference between India and China is almost 900 million tonnes. Therefore, even though India is third, it still has a long way to go in order to at least match China leave surpassing it.

While the Chinese economy is decelerating and is expected to record its lowest GDP since 1992, the steel industry is still expected to grow at 7.8% largely driven by real estate investment. However, there are downsides as well. The Chinese auto industry has contracted for 13 months in a row now which might impact the demand for steel. However, the government has already taken some measures such as relaxation of control policies and increasing standard steel intensity to 5% in buildings.

## Exhibit – Global Output of steel (In Mn Tonnes)





**Exhibit – Top Steel manufactures in the world**

Rank	Company	Production in Tonnage
1	ArcelorMittal	97.31
2	China Baowu Group	95.47
3	Nippon Steel Corporation	51.68
4	HBIS Group	46.56
5	POSCO	43.12
6	Shagang Group	41.1
7	Ansteel Group	39.2
8	Jianlong Group	31.19
9	Tata Steel Group	30.15
10	Shougang Group	29.34
11	Shandong Steel Group	27.58
12	JFE Steel Corporation	27.35
13	Valin Group	24.31
14	Nucor Corporation	23.09
15	Hyundai Steel Company	21.56

**Recent Global Market Trends**

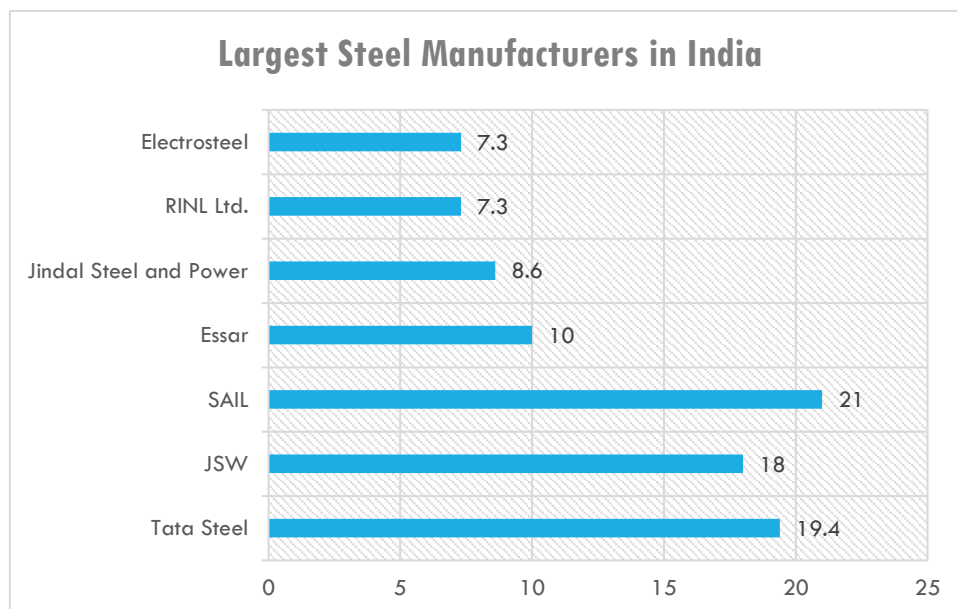
- As we all know, the world was hit with the unfortunate Covid-19 pandemic this year.
- The steel industry gets most of its demand from the construction and auto industry. Due to the lockdown, most of the construction activities were halted across the world and consumer spending decreased due to a fall in discretionary income. As a result of this, there was no demand in the auto industry as well.
- We have already discussed China previously, so let us take a look at the other major economies.
- After growing at a rate of 2.8% in 2018, the global construction sector grew at a very meek rate of 1.2% in 2020. The US construction sector had been weakening since 2019 and saw no recovery in 2020 thereby posing a bad situation for the steel companies.
- Most of the steel companies derive their demand from the well-developed and robust automotive industry in Germany. Due to the fall in auto sales this year, most of the European companies saw a steep decline in their returns with revenues not expected until consumer spending increases.

- Japan and Korea are expected to have double digit declining rates in the steel industry due to a fall in exports and fall in demand in the auto industry.
- In spite of all these headwinds, China still remains on firm footing as their HRC export prices are now 19% higher than average 2QFY21 prices due to a sudden stir in demand.

### The Indian Steel Industry

- India is the 3rd largest manufacturer of steel in the world. We are also the 2nd largest consumers of finished steel in the world.
- India's production of rough steel and finished steel stood at 106.56 million tonnes and 131.57 million tonnes respectively. Consumption for finished steel stood at around a 100 million tonnes.
- The Indian exports stood at 8.36 Million Tonnes for 2019-2020 with a year on year of growth of 31.4%. The imports stood at 6.77 Million tonnes with a year-on-year growth of 13.6%.
- The Steel Authority of India is the largest manufacturer of steel in India. (We are excluding Arselor Mittal as its officially headquartered in Luxembourg.)
- However, by the rupee value of sales, Tata Steel is the largest steel company in India followed by SAIL and then JSW.

### Exhibit – Largest Steel Manufacturers in India

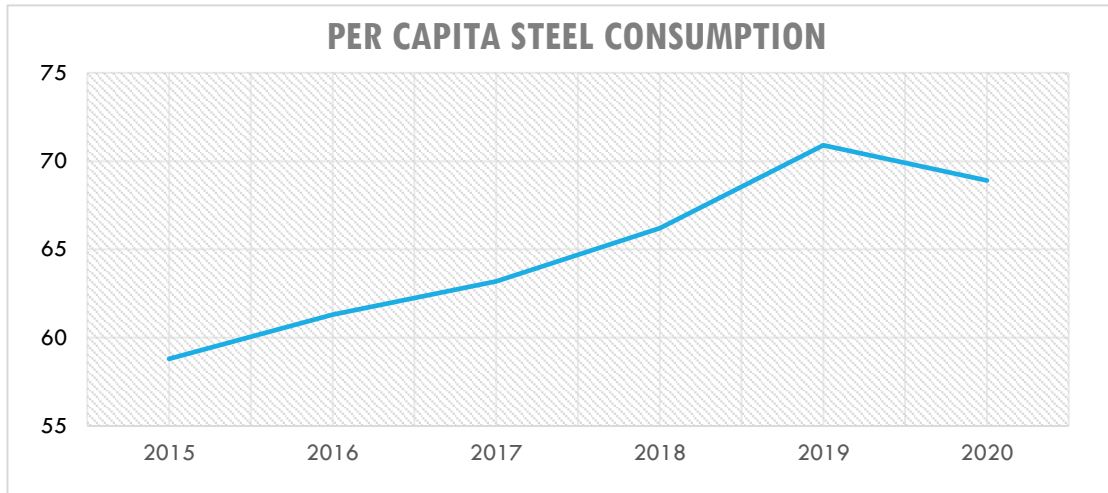


### Consumption Data

The consumption of steel in India has been on a gradual rise. Per capita steel is one of the greatest measures to calculate the average usage of steel in a country by person. Per capita steel is calculated by dividing the total steel consumption by the population of the country.

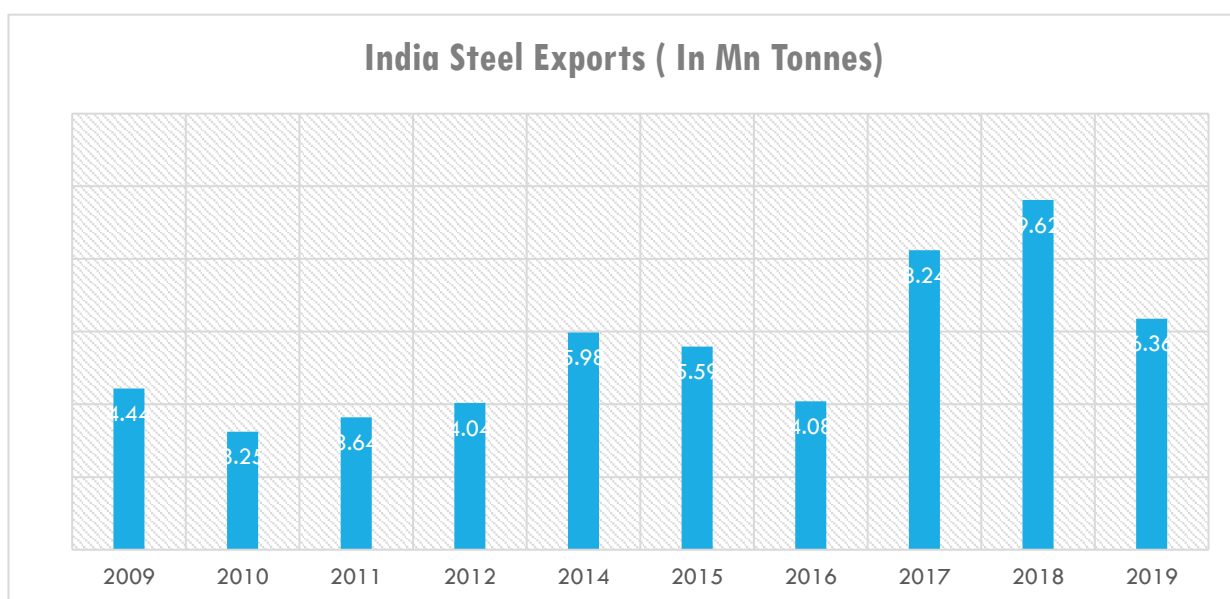
The per capita steel consumption was around 58.8 kg per person in 2016. It has gradually risen to 68.9 kg in 2020 signifying the gradual rise in demand for steel.

## **Exhibit – Per Capita steel consumption in India (In Kg)**



- For a greater part of the last decade, India has remained as net importer of steel.
- However, in FY 2017, the government introduced many laws to shield the domestic manufacturers and promote domestic manufacture. Protections included dumping duty being imposed on imported steel with a range of 5%-58%.
- There was a minimum import price set up for select steel products and a safeguard duty of 20% was levied.
- This shows that the government has been taking many actions in favour of the Indian steel industry. As a result, India became a net exporter of steel in the last 2 years.

## **Exhibit – Exports of steel from India**



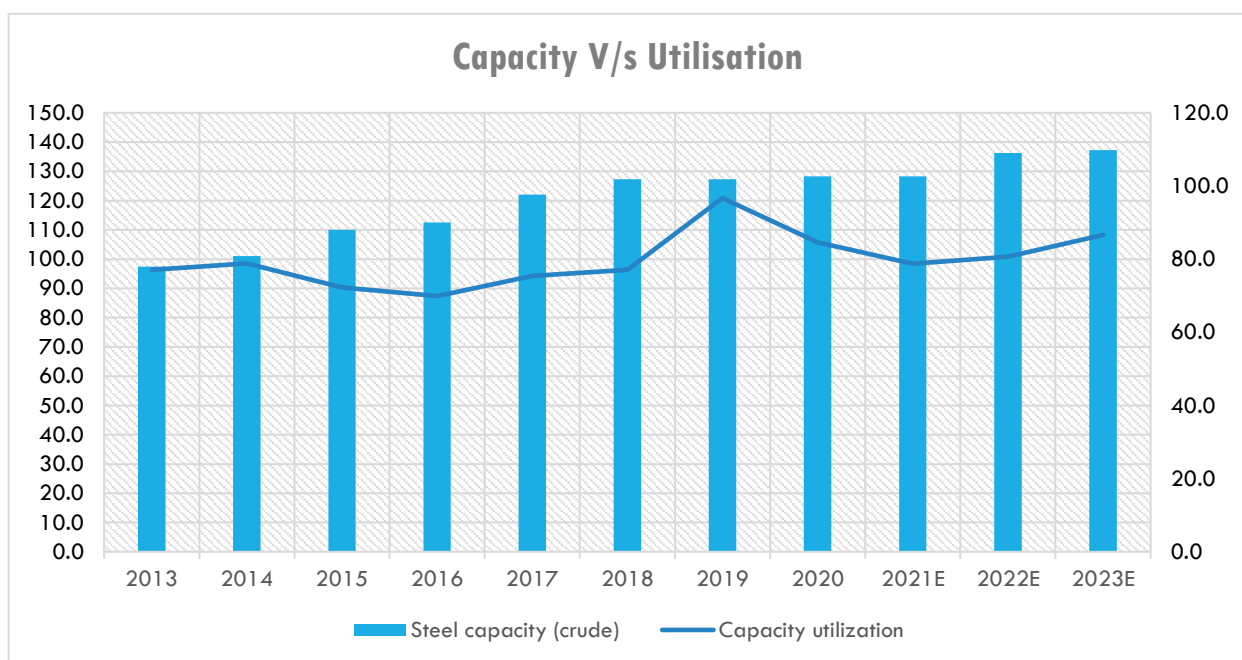
- The Indian exports have been on a gradual rise since 2009.

- The slight dip in demand in 2019- 2020 is only because of the pandemic and does not indicate a long-term slump in sales.

### Capacity Utilisation

- Capacity utilisation helps us in understanding if there is enough demand for the available supply and also helps us get an idea about what the future for the sector will look like.
- However, capacity utilisation as a standalone percentage can be deceptive as sometimes an increase in the capacity utilisation figure can be attributed to decrease in capacity and not increase in demand.

### Exhibit – Capacity in Million Tonnes and Capacity utilisation in percentage



- Growth in capacity has been accompanied by a commensurate growth in capacity utilisation as well.
- From a number of 78.8% in 2013, it was a whopping 96.7% in 2019. This helps us infer that there is an ever-increasing rise of demand for steel in the Indian market which poses a great picture for all the steel manufacturing companies in the country.
- We can see a dip for the years 2020-2023 due to the pandemic. But this is merely temporary in nature

## Expected Trajectory of growth

- The industry could achieve positive trade balance in steel by enhancing its export manufacturing capabilities.
- India's crude steel production is expected to touch 255 MT in 2030-31 with production to clock 7.2% CAGR.
- National steel Policy projects crude steel capacity of 300 million tonnes (MT), production of 255 MT and a robust finished steel per capita consumption of 158 Kgs by 2030-31, as against the current consumption of 73.3 kgs.
- The expected growth can be achieved by extensive mobilization of natural resources, finances, manpower and infrastructure including land.

### Exhibit – Projections

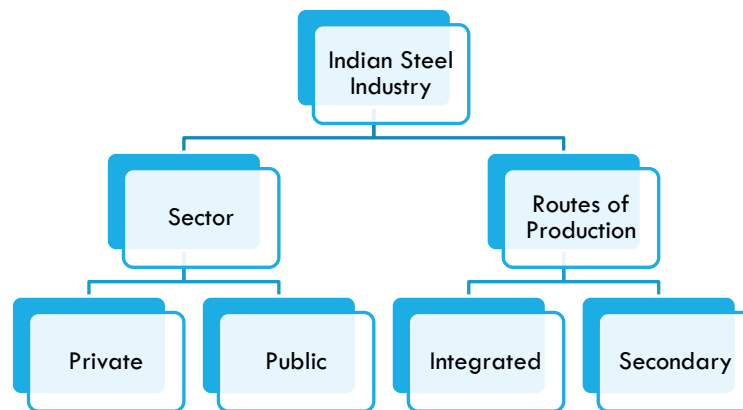
Sl.no	Parameters	Projections (MT) (2030-31)
1	Total Crude steel Demand/production	255
2	Total crude steel capacity	300
3	Total Finished steel demand/production	230
4	Sponge Iron demand/ production	80
5	Pig Iron Demand Production	17
6	Per Capital Finished Steel Consumption in Kgs	158
7	Sponge iron capacity	114

Source: Ministry of Steel, INSDAG, MECON, National Steel policy

- To achieve the above capacity and suffice the demand, about 10 Lakh crore capital investment by 2030-31 is required.
- This increases the employment opportunity in the industry to 36 lakhs by 2030-31.



## Business Model and Value Chain



**Industry based on Sector:** As per Indian Mineral Yearbook, 2018 published by Indian Bureau of Mines, there were 1430 reporting mines in 2017-18. Among them, 146 mines were in the Public Sector and 1284 in the Private Sector.

**Public:** According to Union Minister for Steel Shri Dharmendra Pradhan in the year 2019, there are 9 public sector units with a capacity of 25.432 million tonnes and production of 21.436 million tonnes

**Private:** Based on a Joint Parliamentary committee report in the year 2019 Private sector has 968 units across all the regions of the country with 213,244,282,229 in eastern, western, northern, southern regions respectively. It has a production capacity of 116.804 million tonnes and produces 89.425 million tonnes. The government facilitated private sector investment to the tune of Rs. 8,100 crores in Social Infrastructure with the new Viability Gap Funding Scheme

Indian Railways invited Request for Qualifications (RFQ) from private players for operating 151 trains in 109 pairs of routes. It will attract an investment of Rs. 30,000 crores in the railways

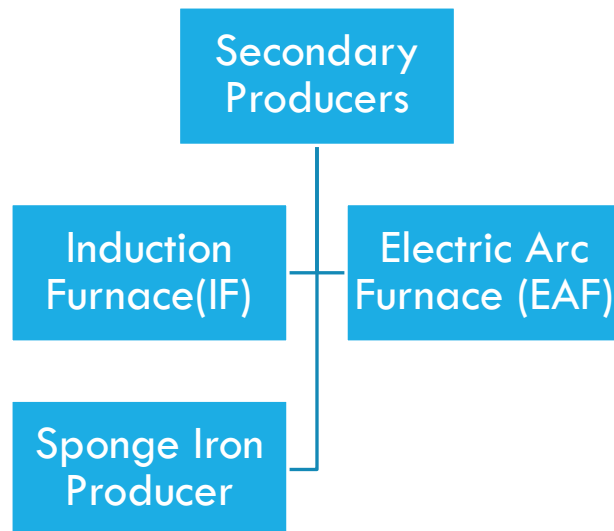
### Routes of Production

#### 1. Integrated Producers:

Steel Producers starting their operation from iron making like production of hot metal or sponge iron using iron ore and producing crude steel of standard specifications, with processing facilities. They are the only one who converts ore to steel.

#### 2. Secondary Producers

The Secondary producers use steel scrap, sponge iron or hot briquetted iron (HBI). The sole reason why Steel scrap and the governmental policies regarding the same are crucial.



### Key stakeholders

As witnessed in Exhibit 2, the construction industry and the auto industry are the major stakeholders of the steel industry when it comes to customers.

### Government:

#### Initiatives and Policies

- Riding high on growing economy and increasing steel demand, the Indian steel industry entered an interesting phase post-deregulated and liberalised market scenario.
- The Government has opted to be a facilitator by laying the policy guidelines.
- Additionally, it wants to create a conducive environment for enhancing the efficiency and performance of the steel sector.
- We shall have a detailed look at governmental reforms in the upcoming sections.

#### Projects and Proposals

- Affordable housing
- Upgrading infrastructure: allocated Rs. 1 lakh crore for strengthening the farm gate infrastructure
- Indian Railways and Metro Sector
- Char Dham Project
- Bullet Train Project
- Dedicated Freight Corridors (DFC)

## Overall Business strategy

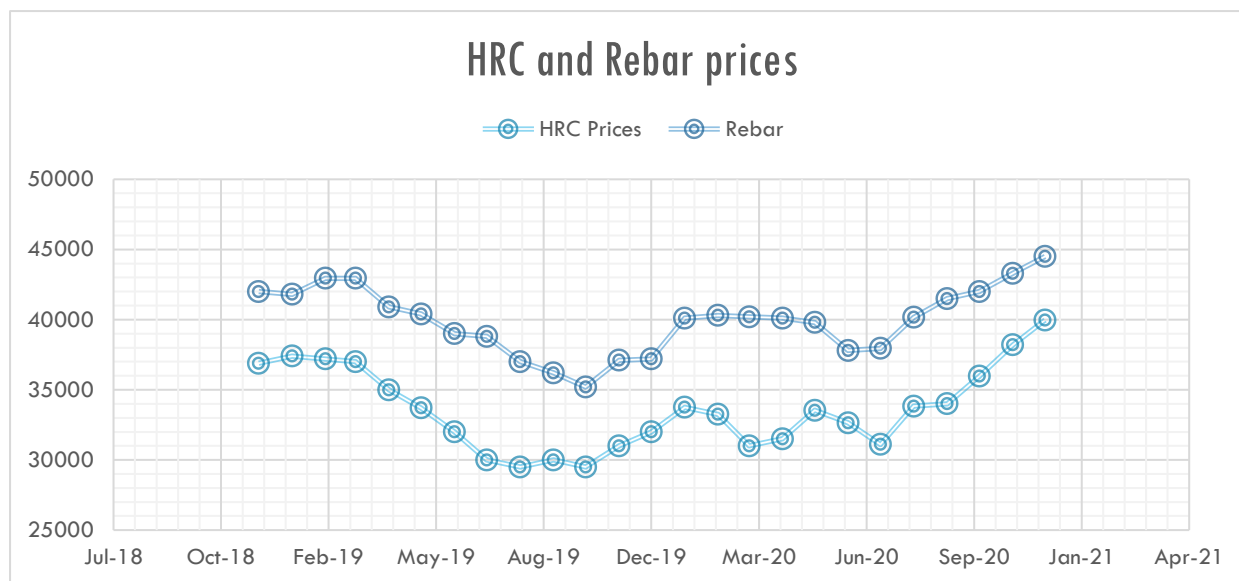
- Whatever the scenario is, the future of steel industry lies in recycling. It is estimated that 80% of the steel used in building and infrastructure industry would be recycled steel
- A slowdown in steel production might occur by 2030. The growth of this sector would then be flat or even negative in the longer-term.
- Engaging in new resilient markets and also strengthening its historical business at the same time
  - Identifying sites with strict climate related regulations and plausible introduction of carbon tax
  - Analysing competition across region
  - Initiate the investment and disinvestment process based on the competitiveness in the region and regulatory measures
  - Increasing investment in recycling means of production
  - Taking the responsibility of collecting and processing scrap metal first hand by upstream (backward) vertical diversification
  - Investing in R&D to innovatively tackle the resilient markets
- Manufacturing Strategy: Focus on raw material security
  - By operating captive iron ore and coking coal mines
  - By having an efficient Raw Material Division
  - For achieving cost efficiencies
- Increase capacity expansion projects once established
- Acquire companies and get into strategic partnerships

## Return Profiles Within the Sector

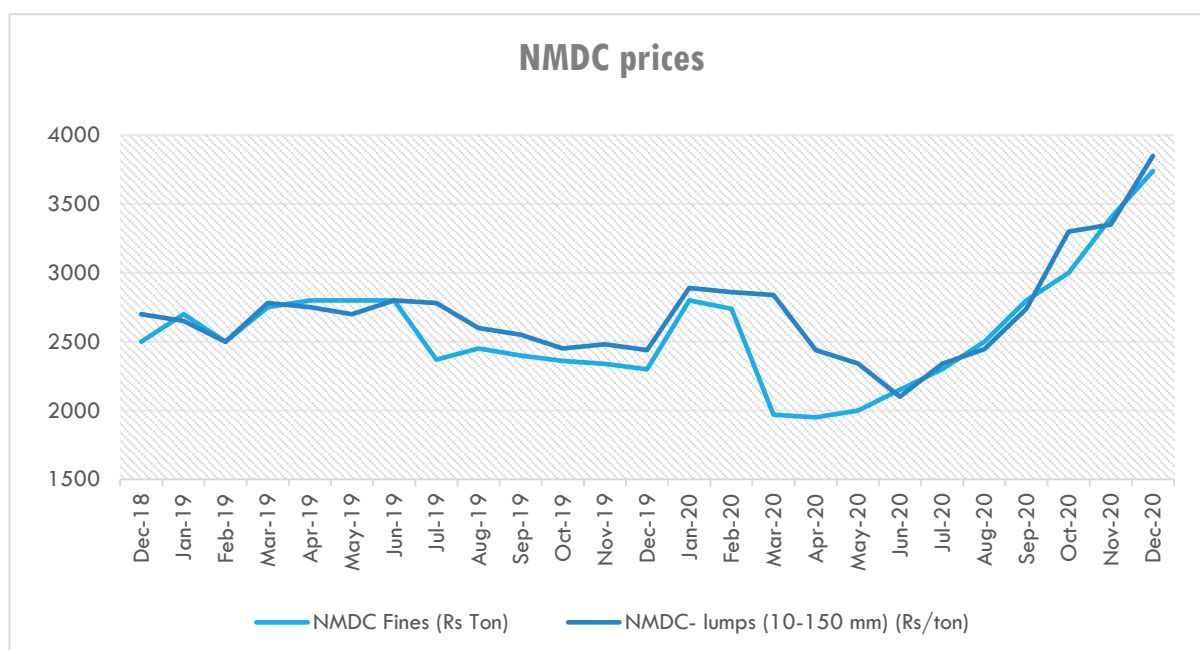
Domestic HRC prices are now trading between import parity FTA and China prices. China HRC price continue to increase with appreciation in Yuan and high demand. Analysts expect a premium to import parity from FTA (free trade agreement) countries to survive in the given market conditions.

This leads to increase in EBITDA estimates for steel companies. This creates attractive relative valuation based on EV/EBITDA and P/B.

### Exhibit – HRC and Rebar Prices



### Exhibit – NMDC Prices



## Peer Mapping on Key Parameters

### Exhibit – Performance Parameters

Sl.no	Performance Parameters	International Benchmarks achieved
1	Blast Furnace Productivity (t/m3/day)	2.5 - 3.5
2	Blast furnace Coke Rate (kg/ton of hot metal)	275-350
3	Pulverized Coal Injection Rate (kg/ton of hot metal)	200-225
4	Specific Energy Consumption (Gaga. Cal/ton of crude steel)	4.5
5	Carbon Dioxide Emissions (ton/ton of crude steel)	1.8
6	Water Consumption (m3/ton of crude steel)	2

Sl.no	Parameters	Benchmarks Achieved in Steel Industry				Average
		SAIL	JSW STEEL	JSPL	TATA STEEL	
1	Blast Furnace Productivity (t/m3/day)	1.15- 1.68	1.10- 1.50	1.4- 2.6	2.5-2.7	1.8825
2	Blast furnace Coke Rate (kg/ton of hot metal)	464- 499	532- 571	353- 545	398- 490	490.5
3	Pulverized Coal Injection Rate (kg/ton of hot metal)	Up to 125	Up to 10	40- 190	85-136	133
4	Specific Energy Consumption (Gaga. Cal/ton of crude steel)	6.70	6.40	5.77	6.40	6.32
5	Carbon Dioxide Emissions (ton/ton of crude steel)	2.60	2.80	2.26	2.61	2.57
6	Water Consumption (m3/ton of crude steel)	3.51	4.68	3.98	2.80	3.74



## Identifying Key Financial Parameters

Company	Market cap. CMP (Rs)(US\$ mn)	Jan 5th	Shares O/S (In Mn)	BV
NMDC	4,127	99	41.7	90
Hindustan Zinc	13,059	228	57.3	91.2
Jindal Steel and Power	3,506	253	13.9	316.25
JSW Steel	11,756	358	32.8	149.17
National Aluminium Co.	1,007	40	25.2	57.14
Vedanta	6,136	122	50.3	152.5
Tata Steel	9,106	586	15.5	651.11
Hindalco Industries	6,995	229	30.5	176.15

Company	EPS (Rs)	P/E	Price/BV	EV/EBITDA	P/B	ROE
NMDC	14.6	6.78	1.1	5.2	1.1	13.5
Hindustan Zinc	16.1	14.16	2.5	8.2	2.5	19.4
Jindal Steel and Power	-7.7	-32.86	0.8	7.9	0.8	4.1
JSW Steel	10.1	35.45	2.4	12.5	2.3	6.8
National Aluminium Co.	0.7	57.14	0.7	8.9	0.7	1.4
Vedanta	6.5	18.77	0.8	4.1	0.8	-374
Tata Steel	35.2	16.65	0.9	9.9	0.9	5.75
Hindalco Industries	17.8	12.87	1.3	6.3	1.3	5.8

- JSW steel tops in EBITDA per tonne margin having 60% YOY growth. It is slightly better than Tata Steel with 48% YOY growth in EBITDA/tonne margin and far better than JSPL's 17% YOY growth.
- There is 14%, 21%, 32% volume growth YOY in JSW steel, Tata Steel and Jindal steel respectively.

## JSW STEEL EQUITY RESEARCH REPORT

- The Companies are eyeing at record high margins especially in terms of realisation per tonne. Spot prices have been increasing substantially.
- The Spot prices as on for JSW, Tata and Jindal as of December is 14,626 & 18882 & 15,615 respectively. This has helped companies renew their supply contracts, particularly to the automotive sector, at a premium.
- Average spot coking coal prices have declined 10% from 2QFY21 after average prices on import bans imposed by China.

### Identifying key competitors in the correct sub segment

In this segment, the division of competitors are done based on company's flat steel products namely Hot Rolled Coils and Sheets (both hot rolled and cold rolled).

Sl.no	Peers - HRC
1	Arcelormittal Nippon Steel India
2	Posco International India
3	Shyam Steel Industries.
4	Jaideep Ispat And Alloys
5	Sagar Rolling Mills

Sl.no	Peers - Sheets
1	National Steel & Agro Industries Ltd.
2	Tata Steel Processing & Distribution Ltd.
3	Eagle Steel Industries Pvt Ltd.
4	Khanna & Co. Steel Ltd.

### International Peers

- Baosteel
- Blue scope
- Reliance Steel and Aluminium
- SIDMA

### Peer companies

- Bharat Forge
- Jindal Steel and Power
- KIOCL
- Ratnamani Metals and Tubes
- APL Apollo Tubes
- Mishra Dhatu Nigam
- Jindal Stainless

## Key Developments

- The government has implemented the **Steel importing Monitoring System (SIMS)**. It prevents the import of defective steel and under invoicing of imports. However, what it actually does is curb the steel imports as every steel importer will have to register themselves with the Government of India. This move was done as a part of the Atmanirbhar scheme to create domestic demand.
- The government also implemented the **Steel Scrap recycling policy** to curb imports
- The government also imposed **anti-dumping duty on galvalume products** that are being imported from China, South Korea and Vietnam. The duty ranges from \$28 - \$200 per tonne.
- As already discussed, Iron ore is the key raw material required for the manufacture of steel. The government introduced a **30% export duty on the export of high-grade iron ore** to ensure sufficient availability of raw materials at competitive prices in the domestic market.
- The Ministry of steel plans to invest **\$70 million** for the purpose of accelerated growth in the eastern parts of the country.
- The Directorate General of Foreign Trade (DGFT) also provided **duty drawback benefits to all the steel exporters** who are exporting through dealer and distributors.
- The National Steel Policy (2017) is already in place which aims to increase India's **steel producing capacity to 300 million tonnes by 2030**. At least what this conveys to us is assured investment and growth support for the steel sector from the government for another decade.
- The government is also looking to increase the rural per capita steel consumption by pushing rural infrastructure projects. Therefore, companies with good infrastructure and transportation facilities in the rural sectors are expected to benefit massively.
- The steel ministry has proposed **incentives worth Rupees 3346 crores** under a phased manufacturing program to boost domestic manufacturing. They include production linked incentives as well. These proposals are soon expected to be placed before the cabinet after they are vetted by the NITI Aayog.
- Now coming to the most obvious one, Covid 19. Demand levels fell all over the world. There was severe dearth of manpower and capital especially in India. Many factories had to be shut down temporarily due to no capacity. However, the worst has passed and the sector will see a huge boom in the coming days as the economy comes to life again.

## Industry Participants reaction

- JSW steel has **postponed its capital expenditure projects** due to the pandemic. Instead of a planned 16000 crore capex in 2020, it is targeting an 8000-crore capex and focusing on getting 7 mines operational in the next year.
- The company is also pumping the remnant of the remaining funds into the working capital as plants are not running at full capacity yet.
- **Tata steel reduced production and shifted most of their sales to exports**. Their chairman has said that as the economy re opens they will focus on ramping up sales in areas which were the least impacted by the pandemic.

- Jindal Steel and Power had to reduce the capacity of most of their plants owing to the pandemic. The company said that they are closely monitoring the situation at the ground and will align its operations with the evolving market conditions.

### Analyst Opinion

- The steel industry has faced a slight tough in its business cycle due this year due to the Covid 19 pandemic.
- However, this should not be a cause of concern in the long term as demand levels are rising again.
- The Government of India has brought in many policies to aid the steel industry thereby promising a bright future for all the steel manufacturers of India.
- There is IMMENSE potential in the industry with a huge opportunity to grow both nationally and internationally for all the companies.
- Since the barriers to entry are pretty high, we do not see any new players coming in which implies the existing players will consolidate.
- Therefore, we conclude that for the long term the steel industry looks to be extremely attractive.
- The growth in the next 3 years might still be slow as the global economy recovers but post that, the steel industry is in for a boom.

## Company Overview

### Timeline

**1982** – JSW set up their first steel plant at Vasind under the banner of the Jindal group

**1982** – JSW acquired Piramal steel which was later renamed as Jindal Iron and Steel company.

**1994** – The Jindal Vijayanagar steel plant was set up in Toranagallu in Karnataka which was the heart of the iron ore belt in the state. Iron ore is one of the main raw materials required to manufacture steel. The plant was later commissioned in 1997.

**2004** – The Salem Steel works was acquired by the JSW group. JSW turned around the fortunes of the falling company, made dramatic changes to the plant and made it profitable again.

**2005** – Jindal Iron and Steel company and Jindal Vijayanagar steel limited at Toranagallu merge to form JSW steel Ltd.

**2008** – JSW Steel entered into a Joint Venture with UK based Geo Steel in Georgia. JSW Steel had 49% equity interest in the JV while Geo Steel held 51%.

**2010** – JSW acquired the Dolvi Steel works in Maharashtra. Located on the west coast, the Dolvi plant has a jetty capacity with a capacity of 10 million tonnes per annum.

**2013** – JSW enters into a JV with Japan's JFE. Under the JV agreement, JFE provided technology for electrical steel sheets which were non grain oriented at the Vijayanagar plant at Toranagallu.

**2014** – JSW steel acquired Welspun Max steel in a deal that was approximately valued around 1000 crores.

**2018** – JSW Steel acquired 100% of the Italian steel maker Aferpi. The deal was valued around \$55 million. Aferpi was Italy's 2<sup>nd</sup> largest steel producer with a capacity of 2 million tonnes per annum.

**2018** – JSW Steel and Japan's JFE Corporation entered into yet another joint venture. JFE was to provide technology for the production of automotive steel in India. At the time of the agreement, JFE had a 15% ownership in JSW steel.

**2018** – JSW made a 150-million-dollar commitment to set up a steel plant in Texas. This would-be part of the 500-million-dollar capital expenditure the company had planned in the United states for a steel pipe to be built in Baytown.

**2019** – A bankruptcy case had begun in 2017 questioning the takeover of the debt ridden Bhushan steel by JSW. The National Company Law Tribunal approved the takeover in 2019.

**2019** - With reference to the Georgian JV with the British Geo steel, JSW sold 39% stake in the JV and retained the remnant stake of 10%.



**2020** – JSW emerged as the top bidder for 3 iron ore mines. The capacity of all the mines put together was around 1092 tonnes.

**2020** – The NCLAT approved JSW Steel's bid for Bhushan power offering them immunity from criminal proceedings against the offences committed by the previous management of the debt-ridden company.

**2020** – Sanjay Singal, the company's former chairman convinces the supreme court of India to challenge the decision of the tribunal to allow the sale.

**2020** – JSW acquires 26.45% stake In Vallabh tinplate for 35 crores. Vallabh tinplate has a manufacturing unit with a capacity of 100,000 tonnes per annum.

**2020** – JSW completes a 100% acquisition in Italy's GSI Lucchini for an amount of one million euros. (Approximately 9 crore rupees).

### JSW Steel facilities

JSW steel is the flagship company of the JSW group. It is one of the largest manufacturers of steel in India with a capacity of 18 million tonnes per annum. By 2025, the company aims to increase its capacity up to 40 million tonnes. The following are its current manufacturing facilities –

#### The Vijayanagar works

- Located in Toranagallu in the Bellary Hospet Iron ore belt.
- 10,000-acre facility which is well connected to both the Goa and the Chennai port.
- It is the world's sixth largest steel plant.
- Capacity of 12 million tonnes per annum.
- Home to India's largest blast furnace.

#### The Dolvi works

- Located in Dolvi, the west coast of Maharashtra.
- Capacity of 5 million tonnes per annum.
- Connected to a jetty which can handle cargo of up to 15 million tonnes per annum.
- The first Indian steel plant to adopt a combination of Conarc technology and compact strip production (CSP) for the production of hot rolled coils.
- Mainly caters to the industrial and automotive demand.

#### The Kalmeshwar works

- Located just 25 kms away from Nagpur, its central location makes its products easily accessible to domestic partners across India.
- Spreads across approximately 3 lakh square metres.
- Makes use of modern Japanese technology as a result of the JV with JFE corporation.
- Home to a one of its kind continuous pickling line.
- Contains 2 hi cold reversing mills with one of them being supported by Hitachi.

### **The Salem works**

- Caters to the major auto hubs of South India.
- Located within 350 kms of both Bangalore and Chennai, its strategic location is well connected with railways, ports and highways.
- Has a unique feature of 100% waste utilisation thereby producing absolutely 0 waste.
- Produced more than 850 special grades of steel.
- Has a capacity of approximately 1 million tonne per annum.

### **The Tarapur works**

- JSW Tarapur is the first Indian plant to have a galvanising line commissioned for it.
- The plant is recognized as India's largest producer and exporter of coated products.
- It is the first Indian plant to develop galvanised products with higher coating for the solar segment.
- Supplies to clients all across Europe, North America, Africa and the Middle East.

### **Vasind Works**

- Located just 80 km away from Mumbai which makes it very accessible.
- One of the largest manufacturers of Coated steel not only in India but in the entire globe.
- Specialises in the manufacture of steel that is required for refrigerators, air conditioners, washing machines and other home appliances.
- One of the very few plants which has a railway siding within the facility enabling quick transportation and reduced lead time.

### **JSW USA**

- JSW steel has 2 plants in the US. One in Baytown and the other one in Ohio.
- The Baytown plant mainly manufactures Carbon steel plates, Coated pipes and DSAW pipes.
- The Ohio facility primarily manufactures Hot rolled coil bands.
- The Ohio facility was recently acquired just in 2018. JSW made a herculean effort by restarting the plant which lay idle for the last 10 years by making necessary technological changes.

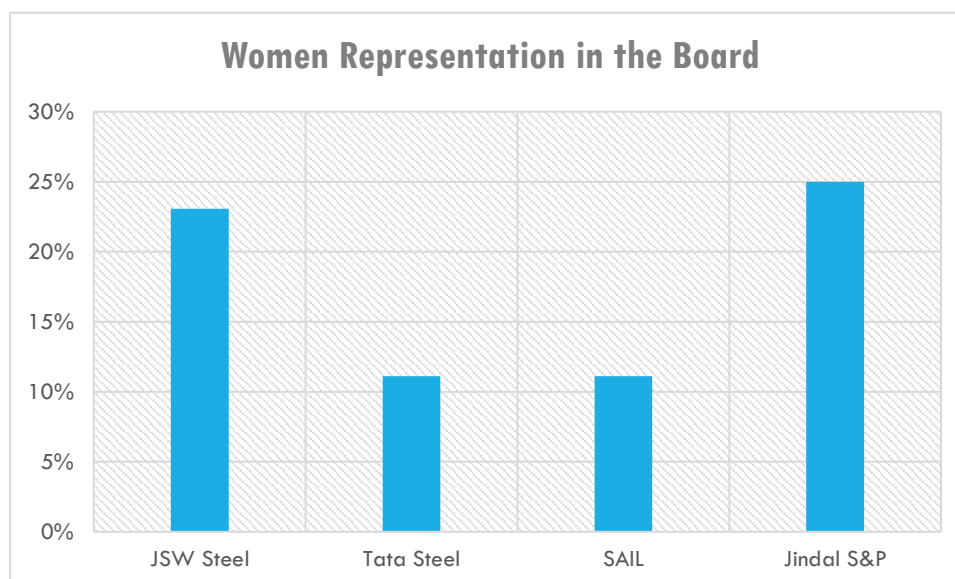
### **JSW Italy**

- JSW Italy has controlling interest in 3 companies. Them being – JSW steel Italy Piombino, GSI Lucchini and Piombino logistics.
- These facilities are mainly involved in the manufacture of long steel.



## Management Overview

### Exhibit 11 – Women Representation in the Board of Directors



#### **Mrs. Savitri Devi Jindal**

- She is the chairperson emeritus of the JSW group.
- She is the wife of the late OP Jindal, the founder of the Jindal group.
- She served as one of the board of directors from 2005 to 2011.
- She also served as the Member of the legislative assembly from the constituency of Hisar representing the Indian National Congress.

#### **Mr. Sajjan Jindal**

- Sajjan Jindal is the son of OP Jindal and Savitri Jindal and is the primary promoter of the company.
- He also serves as a council member of the Indian Institute of metals and is also the member of the Executive committee and chairs the sustainability committee of the global regulatory body of steel, The world steel association.
- It is under Mr Jindal's leadership that the JSW group has been significantly able to expand its operations ranging from steel, gas and cement.

#### **Mr. Seshagiri Rao**

- Seshagiri Rao is the joint managing director along with Sajjan Jindal and is the group CFO. He also serves as a non-independent executive director of the company.
- He is highly experienced possessing over 3 decades of expertise in the steel sector and areas of corporate finance and banking.
- He is a reliable and innovative thinker who has been with the company since 1997.

- He has been honoured with multiple awards and accolades by various bodies across India.

### **Dr. Vinod Nowal**

- Vinod Nowal is the deputy Managing director and a non-independent executive director of the company.
- He has been a part of the company since 1984 and has served at various positions.
- Alumnus of the Harvard business school, Nowal holds a doctorate in inventory management.
- Being a stalwart of the steel industry, he has been a part of various bodies such as the ASSOCHAM, Karnataka Iron and Steel Manufacturer's association, etc.

### **Mr. Jayant Acharya**

- Jayant Acharya serves as the Director of marketing while also holding the position of a non-independent executive director of the company.
- Mr. Acharya holds a bachelors in chemical engineering and a masters in Physics from the Birla Institute.
- He has over 2 decades of experience in the steel industry.

The following are the other Directors of the company –

- Mr. Hiroyuki Ogawa - Nominee Director, JFE Steel Corporation, Japan
- MR. M.S. Srikar, IAS - Nominee Director, KSIIDC
- Mr. Malay Mukherjee - Independent Non-Executive Director
- Dr (Mrs) Punita Kumar Sinha - Independent Non-Executive Director
- Mr. Haigreve Khaitan - Independent Non-Executive Director
- Mr. Seturaman Mahalingam - Independent Non-Executive Director
- Mr. Harsh Charandas Mariwala - Independent Non-Executive Director
- Mrs. Nirupama Rao - Independent Non-Executive Director





### Analyst's Opinion

- The JSW group has a very efficient and effective management.
- In the early years of the company (2000s), the company very wisely consolidated its business and did not go for ambitious plans which shows the presence of a prudent management at the helm of affairs.
- However, once the company captured a significant part of the market and was assured of business, we can then enter into a lot of JVs and acquisitions especially in the last decade which shows that the management is not afraid of taking calculated risks for growth.
- All of the expansion decisions made by the company have resulted in a success with all the plants functioning over 80% capacity utilisation.
- Everybody in the management team has a significant experience in the metal industry. Therefore, the company is in seasoned hands.
- Many members of the management team have worked closely with governments of various states. Having good political connects is always a plus point for the company.
- None of the members of the management team have any proven charges or felonies against them.
- There is healthy women participation ensuring diversity.
- The company has not been involved in sort of scandals or accounting scams. They have always been transparent.
- Therefore, it is safe to conclude that the company has a great management team with the right people at the helm of affairs.

## Key Products of the Company

The Company's diversified portfolio comprises products under hot-rolled, cold-rolled, galvalume, galvanised/galvalume, pre-painted, tinplate, electrical steel, TMT bar, wire rod, special steel bar, round and bloom categories.

1. **Hot Rolled:** JSW Steel manufactures Hot Rolled (HR) coils, plates and sheets of the highest at its hot strip mills (HSM) in Vijayanagar, Karnataka and Dolvi, Maharashtra. Used in welding and construction where precise shapes and tolerances are not required
  - I. Hot-Rolled, Pickled, Skin passed and Oiled products
  - II. Hot Rolled Sheet
  - III. Hot Rolled Coil

Application: Welding Tubes and pipes, line pipes, LPG cylinders, Medium Carbon steel

2. **Cold Rolled:** India's first Continuous Annealing Line (CAL) in technological collaboration with JFE Steel Corp., Japan, we manufacture high-strength and advanced high-strength steel for the automobile sector at the widest CRM in the country. Cold Rolled Steel is ideal for projects where **precision is essential**
  - I. CR Coil
  - II. CR Sheet

Application: Automobiles, Furniture, drums and barrels

3. **Colour coated Products:** JSW is the largest producer of coated products in India.
  - I. Pre-painted Galvalume Corrugated Sheets & Profile
  - II. Pre-painted AL-ZN Sheets & Profile
  - III. Pre-painted GI & GL Coils

Applications: Roofing and Cladding, Agricultural Impact, Electric and Light fittings

4. **Galvalume:** JSW Steel is the first Licensee Galvalume producer in India that uses technology from BIEC International Inc., USA. One of the advantages over JSW's competition
  - I. Aluminium-Zinc coated coils and Sheets for Solar Structures
  - II. Aluminium-Zinc Coated Corrugated Sheets & Profiles

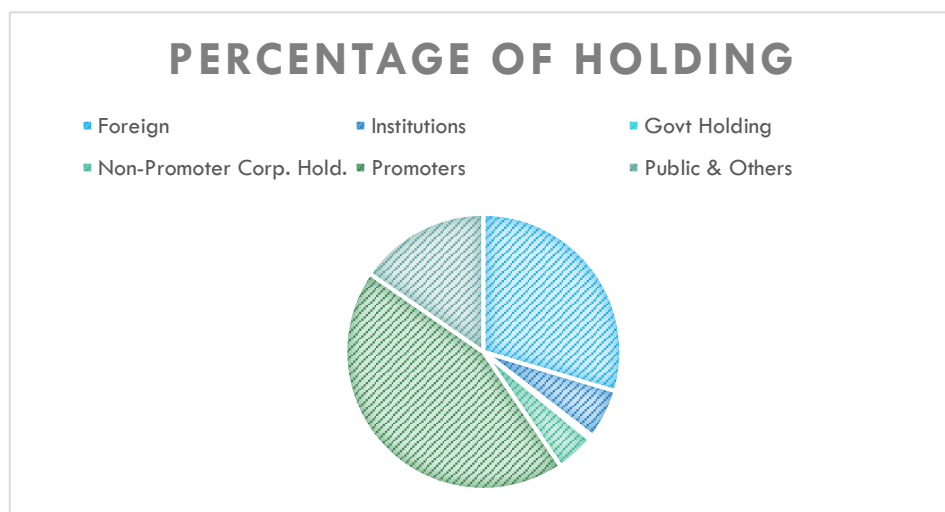
Applications: Ducting, coolers and Solar Heating panels, Electric and Light fittings

- Completed the acquisition of Vardhman industries Limited that further enriches the Product mix

## JSW STEEL EQUITY RESEARCH REPORT

Product	Customers
Hot Rolled Pickled and Oiled	Hero Honda, Hyundai Steel, Nissan
Galvanised Alloyed products (GA)	Toyota
Tin Plate	The tinplate company of India Ltd, Adani Wilmar, Soya Industries
Pre-painted galvanized iron steel (PPGI).	SAMSUNG
Electric Steel	Suzlon, BHEL, ANDRITZ
Corten Steel	APLAPPOLO
Special forging alloy steel	Trinity, Ramakrishna Forgings Limited
Bearing Grades	SCHAEFFLER
EN1A Steel	Lakshmi Machine Works
Pre-painted galvalume	Haier, LG

### Stakeholders



In the last 5 years, the promoters holding has increased from 41.45% to 44.07% and pledged shares has decreased from 50.29% to 26.28%. This seems to be a good sign considering owners trust in company.

On March 30<sup>th</sup> 2020, Sajjan Jindal released Rs 409 crore worth of pledged promoter shares of JSW Steel and JSW Energy by repaying loans worth Rs 640 cr. About 165 crore of worth pledged shares were that of JSW steel.

## JSW STEEL EQUITY RESEARCH REPORT

Creditors	As on March 2020
Bonds (unsecured)	10,554
Debentures (secured)	5000
Secured and Unsecured Term loans	22207
Differed Government loans	135
Secured and Unsecured capital project acceptance	1579
Unamortised upfront fees	-228
Total	39,247

The borrowings laid down is at its amortised cost. Post this, the firm raised \$500 million overseas in October and extended the same issuance with \$250 Million in the December. It is noteworthy to know that the debt was raised to repay the existing debt and for general corporate purposes.

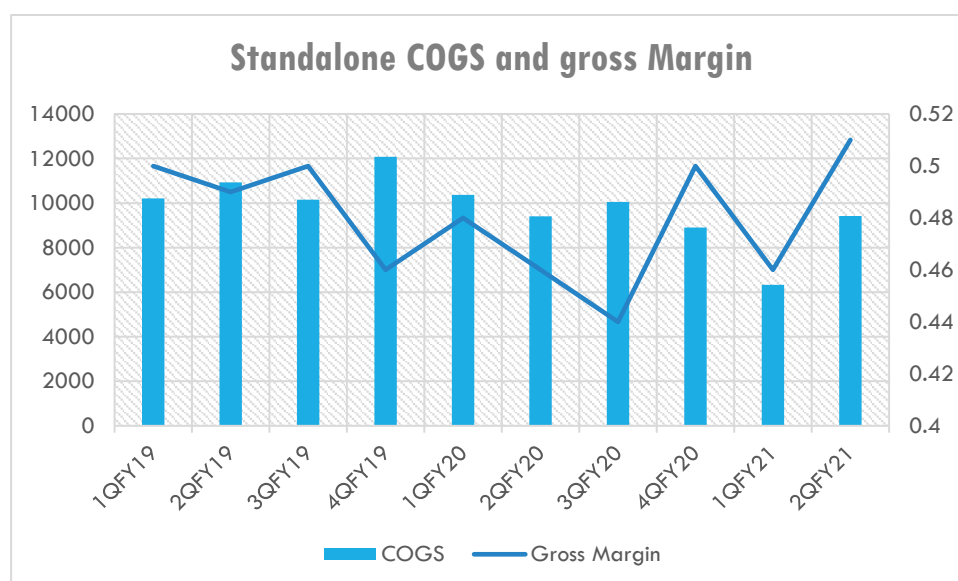
### Market

JSW Steel has a sales and distribution network across the country. It has a strong presence in South and West India where a large portion of steel customers are located. The Company has a significant domestic retail presence too. It has more than 11,000 exclusive and non-exclusive retail outlets. It also exports footprints in over 100 countries across five continents.

### Competitive Advantages and Disadvantages

#### Cost

Gross margins during the quarter are 51.1% (up 4.7% YoY and 4.6% Q-o-Q) on account of lower raw material cost and other cost control measures taken by company



Company is aiming to cut fixed costs by 10%-15% which will aid in preserving and enhancing cost effectiveness

### Differentiation

- JSWSTEEL is currently valued at a discount to the S&P BSE SENSEX index based on Price to Sales ratio (2.7 vs 0.7)
- Produces 800-plus tonnes of steel per person per annum, making it the most productive steel plant in India
- Dolvi works is Located approximately 80 km from Mumbai, the unit is also well connected via rail, road and sea.
- It is the only primary producer of long products in Western India.

### Innovative products and technology

- The Company's galvanised products are differentiated with high strength, resistance to corrosion, eco-friendly, durable and are lighter weight
- Dolvi Works is the first plant in India to adopt a combination of CONARC technology for steelmaking and compact strip production (CSP) for producing hot rolled coils

### Operational effectiveness

- The company's days sales in receivables has been lower than its industry group average for each of the past five years.
- The company's gross margin has been higher than its industry group average for each of the past five years.
- The company's debt-to-capital has been higher than its industry group average for each of the past five years.

### Technology based competitive strategy

- Vijayanagar works is also the only steel plant in India with pair cross technology and a twin-stand reversible cold rolling mill.
- The Company has implemented innovative technologies to recover iron from the waste slime generated, thereby reducing consumption of iron ore
- It is also the only steel plant in India with pair cross technology and a twin-stand reversible cold rolling mill.
- In the past year, the Company has launched over 200 projects on digital themes across manufacturing, sales and procuring raw materials

### Adaptability competitive advantage

- Reuses more than 95% of process waste and is recognised for its 'zero-effluent discharge' status

### Advantages over Competition

- **Average sales and Average net profit are far greater than its competitors.**
  - Average sales per employee of Tata Steel is 43,201.3 compared to that of JSW's 67,272.8.
  - Average Net profit per Tata Steel employee is 4700 compared to JSW's 5971
- Improved operating efficiency expanded EBITDA margins

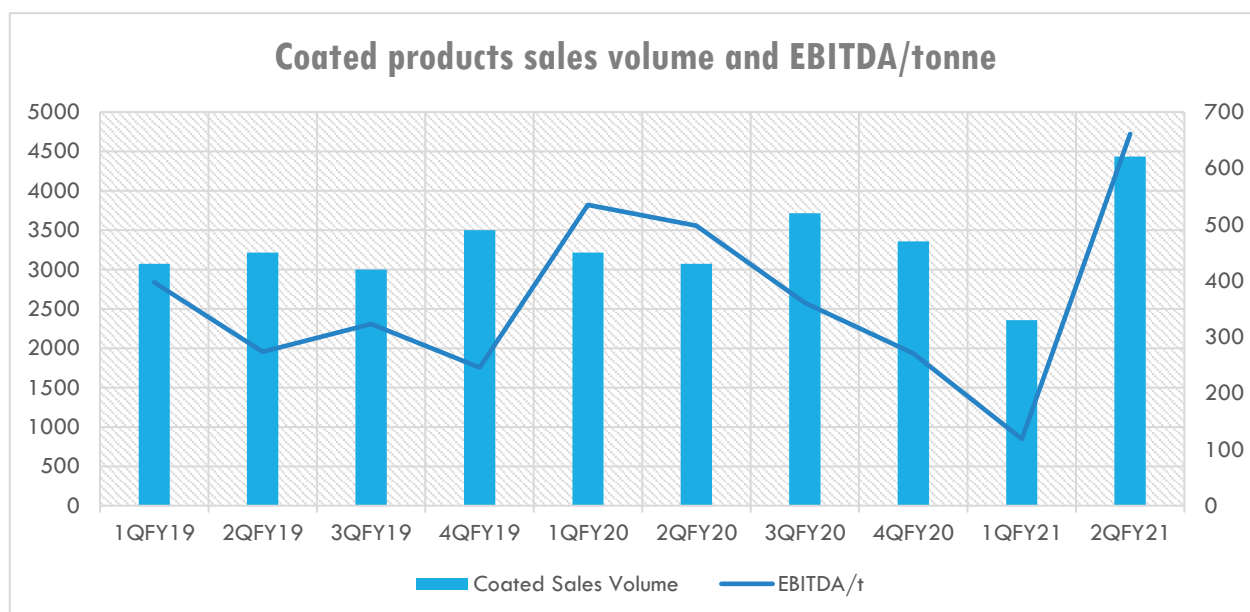
## JSW STEEL EQUITY RESEARCH REPORT

- There was substantial increase in realization due to favourable movement in HRC prices along with the price hike taken by management
- The management focused over **exports market** and export sales volume accounted for 53% of total sales volume in the 1<sup>st</sup> quarter
- JSW Steel recently announced the acquisition of Aferpi, the second largest steelmaker in Italy. It is also adding capacity at its plate mill in the US.
- Tata Steel, on the other hand, is looking to focus on the domestic market, more than 10 years after it made bought UK-based steelmaker Corus.

### Disadvantages

- JSW Steel is still working on a turnaround strategy for Monnet Ispat & Energy Ltd.
- Tata Steel produces its own raw materials and its mine's meet 100% of the requirements wherein JSW Steel's captive mines provide only 20% of iron ore required. Tata steel has better raw material security
- Decreased exports during the financial year 2019-20
- The volume growth is substantially lower than that of Tata Steel and only tad bit more than Jindal Steel.

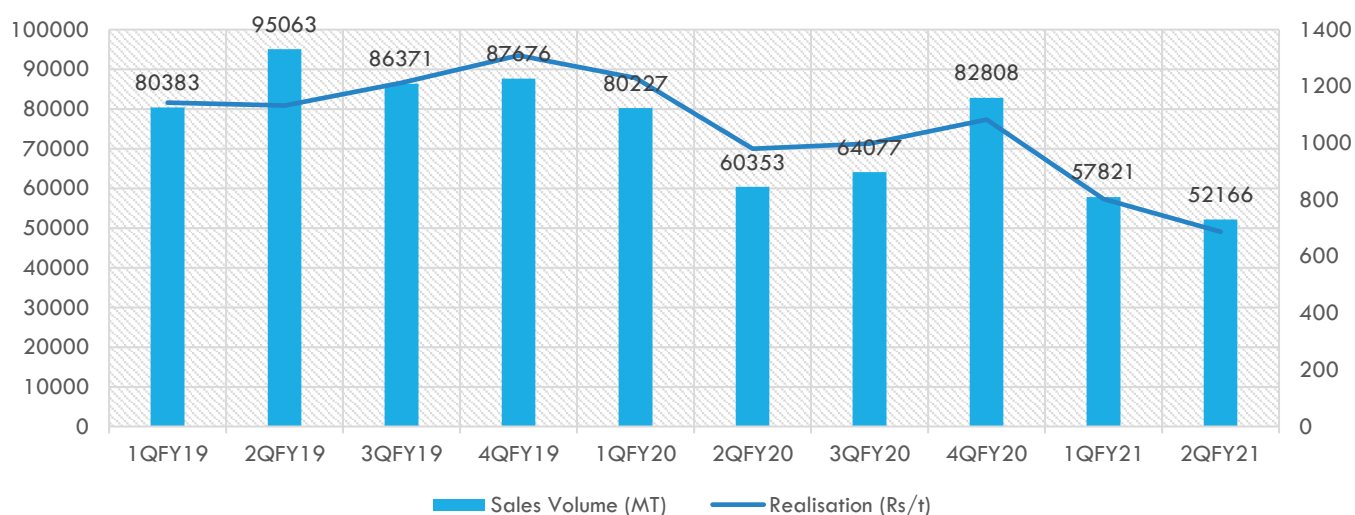
Volume growth	2QFY20	3QFY20	4QFY20	1QFY21	2QFY21
<b>JSW Steel</b>	-4%	12%	-8%	-24%	47%
<b>Tata Steel</b>	-1%	15%	-15%	-28%	70%
<b>Jindal Steel</b>	-3%	14%	-16%	11%	24%



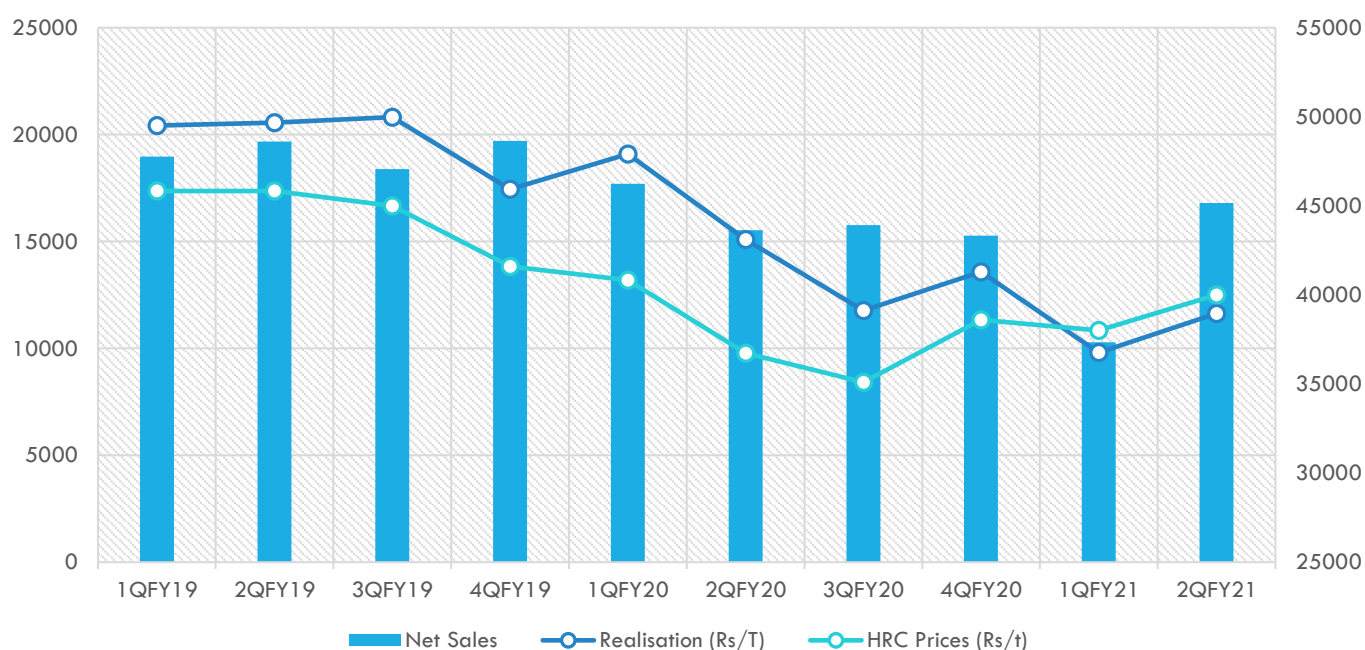
## Analyst view for the future

- A pattern of **increasing sales** in conjunction with a **rising EPS** looks positive for the JSW's growth.
- The upcoming Dolvi and Vijayanagar additional capacity commissioning in the coming years could turnaround the company.
- The companies' **acquisitions namely Bhushan steel & power and Monnet and Ispat & Energy Ltd.** could come handy in company's growth strategy
- Recent increase in government initiatives and JSW's goal to produce long steel along with flat steel helps the company to have suitable **product differentiation**.
- Of the 242 firms within the Metals & Mining industry group, JSW Steel is among 69 companies that pay a dividend. The stock's dividend yield is currently 1.0%.
- USA Ohio and Italy subsidiary expected to turn EBITDA positive by end of FY20 even though US plate and pipe mill margin was impacted by falling steel prices in US.

### US plate and pipe volume and realization



### Net sales and realization trend





## Unit Economics – JSW STEEL

- The conversion of an asset or service into cash is called the price realisation of the asset or service.
- Therefore, the realisation per tonne will be the amount of revenue or cash generated by selling each tonne of steel.

Phase	Realisation per tonne (In Rupees)
2Q FY 19	49,765
3Q FY 19	49,981
4Q FY 19	46,294
1Q FY 20	47,195
2Q FY 20	41,717
3Q FY 20	38,504
4Q FY 20	41,289
1Q FY 21	36,761
2Q FY 21	40,769

### Exhibit– Realisation per tonne of peers

Phase	JSW Steel	Tata Steel	Jindal S&P
2Q FY 19	49,765	56,296	52,160
3Q FY 19	49,981	57,824	55,986
4Q FY 19	46,294	53,434	50,244
1Q FY 20	47,195	53,460	46,919
2Q FY 20	41,717	50,071	45,020
3Q FY 20	38,504	44,522	39,762
4Q FY 20	41,289	48,876	42,359
1Q FY 21	36,761	44,281	39,491
2Q FY 21	40,769	45,577	40,722

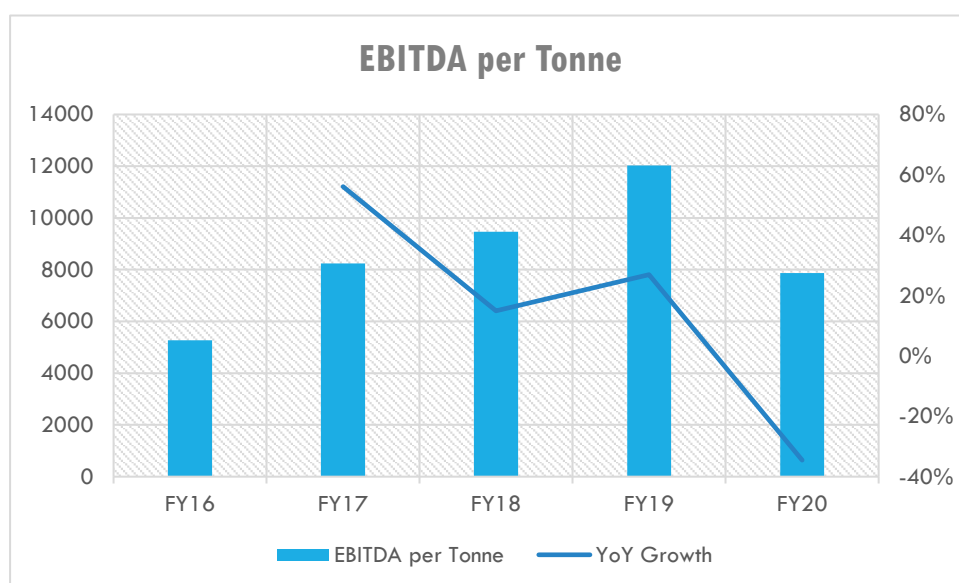
- Both Tata Steel and Jindal Steel and power are doing a better job than JSW steel as they have a greater realisation per tonne.
- We can also observe a common trend in all the 3 companies where in their realisations per tonne decline during quarter 4 of 2020 and the first 2 quarters of 2021 owing to the pandemic.

## JSW STEEL EQUITY RESEARCH REPORT

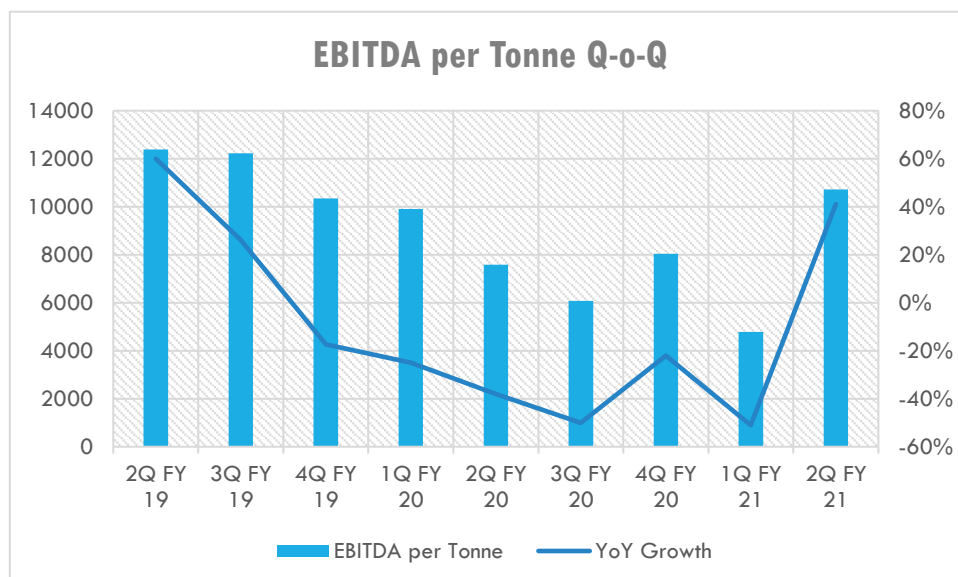
- The next most important factor of unit economics in the steel industry would be the earnings before interest, tax, depreciation and amortisation per tonne.
- This helps us in determining the operating profit the company is making per tonne of steel it sells and helps us in analysing its efficiency.

Year	EBITDA per Tonne
FY16	5277
FY17	8237
FY18	9471
FY19	12025
FY20	7873

**Exhibit – EBITDA per tonne over the years and growth rate.**



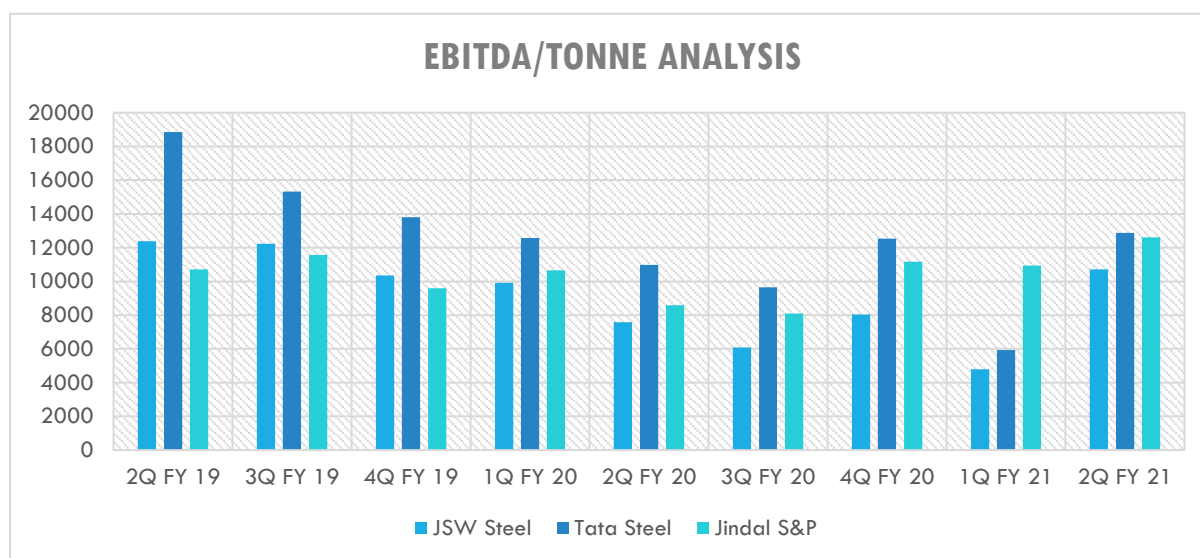
- EBITDA per tonne was consistently growing until 2019. That is a good sign as it shows that the company is operating very profitably year by year and is utilising its assets well.
- However, there was a sudden drop in 2020. This was basically due to the pandemic and most of the demand fell in Quarters 3 and 4.



## JSW STEEL EQUITY RESEARCH REPORT

- Most of 2020's EBITDA/tonne got affected by quarter 3 and 4.
- We can see a 50.3% fall in the EBITDA/tonne in Q3 followed by a further fall of 22.5% in Q4.
- However, we also have to look at the latest data point that is Q2 of 2021. We can already see a 40% increase in the EBITDA/tonne which is promising a quick recovery of the company from the pandemic.

### Exhibit – Peer analysis of EBITDA/TONNE. Expressed in Rupees.



- Both Tata Steel and Jindal Steel and Power are operating a better profitability than JSW Steel.
- Even during the pandemic, we can see that the peers have done better than the company. Therefore, the company has a lot of ground to catch up from the stalwarts.

Now let us take a look at how profitable JSW Steel is to its investors. We can measure this by the ROE and the ROCE ratios.

Year	RoE	RoCE
2017	16.9	11.2
2018	25.6	14.7
2019	24.3	14.6
2020	6.8	6.6

- The Return on Equity figures look pretty impressive as the average RoE of the companies listed in the NSE is around 18%-20%.
- However, in order to get a better perspective of these figures, we will have to compare the company with the peers who belong to the same industry in order to determine an industry average.

## JSW STEEL EQUITY RESEARCH REPORT

ROE %			
Year	JSW Steel	Tata Steel	Jindal S&P
2017	16.9	11.3	-7.4
2018	25.6	13.6	-4.8
2019	24.3	15.5	-5.4
2020	6.8	5.7	-0.3

ROCE %			
Year	JSW Steel	Tata Steel	Jindal S&P
2017	11.2	7.5	0.1
2018	14.7	8	1.7
2019	14.6	10.1	1.9
2020	6.6	4.4	4.1

- JSW Steel has consistently given better returns to its investors over the years.
- This is evidence to the fact that the company has a very good management at the top and handling of affairs such as capital structure and leverage are very efficient.

### Analyst's Opinion

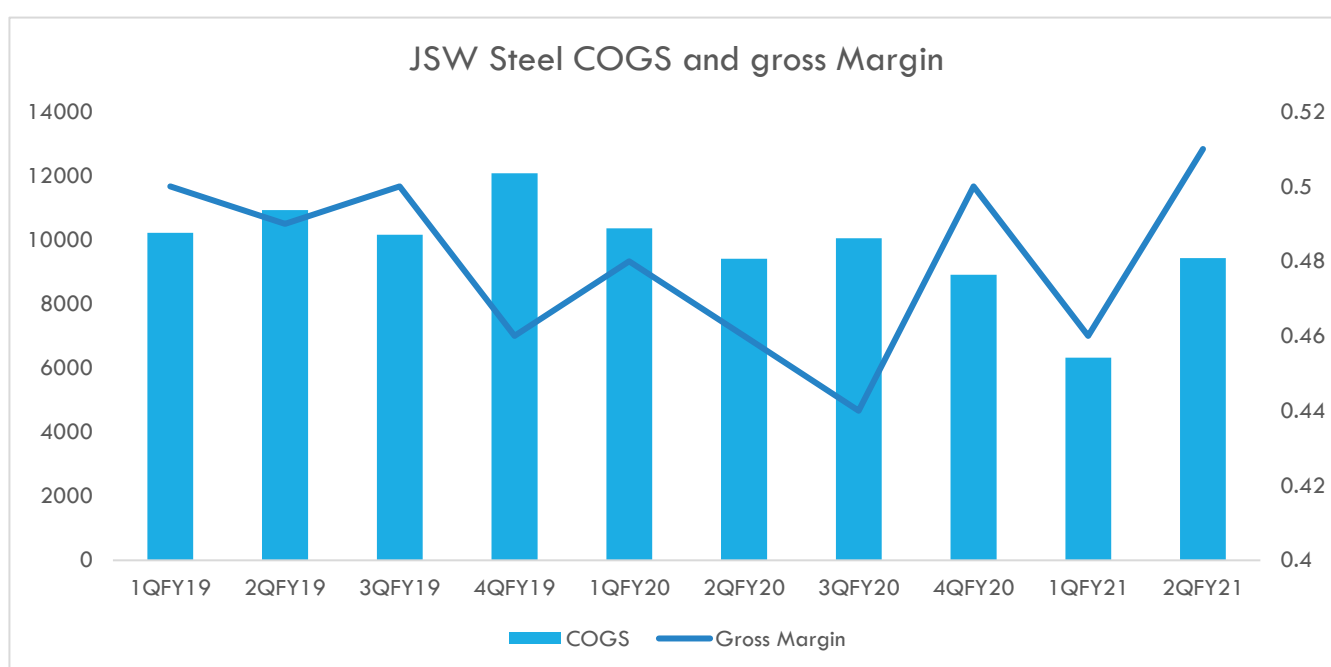
- Though the operational figures of Tata Steel and Jindal Steel and Power are better than that of JSW, that does not make JSW a bad company.
- Their figures are extremely good too but at the moment their peers are just performing marginally better.
- Another thing to keep in mind is that JSW has been providing the highest returns to its shareholders in the industry. This shows that the company is able to get such stellar results with much lesser capital than Tata or Jindal S&P.
- Considering that the company has been making so many capital expenditures in the last 5 years, the company has immense potential to grow. But what makes JSW stand out is that they are growing profitably which is rarely the case as companies tend to compromise on the bottom line for the top line.

## Growth and Revenue Estimates

- The sales for the next fiscal year (could boost to about 25% keeping in mind the 2 acquisitions and Dolvi expansion plans and then reduce to about 10-15% (taking 12.5% as average of estimates)
- EBITDA growth for the next year is anticipated to be about 40% because of backward integration and increased product prices and then increase substantially to 25% and then about
- The calculation for EBITDA is based on EBITDA margin of JSW steel. 10-year EBITDA margin average is about 21%, considering the expansion plans and the companies focus on cost effective methods, we estimate it to increase to about 24%
- Net profit is based on Net profit margin too, the estimate leads to having 30% increase in Net Profit in financial year 2023. The margin is assumed to be back to 9% in 2023

### Exhibit – Growth and Revenue estimates (In RS. Cr)

YEAR	FY18A	FY19A	FY20A	FY21E	FY22E	FY23E
Revenue	71,503	84,757	73,326	70,393	87,991	98,500
Growth YOY%		19%	-13%	-4%	25%	12%
EBITDA	14,794	18,952	11,873	16,622	20,778	23,271
Growth YOY %		28%	-37%	40%	25%	12%
EBITDA Margin	21%	22%	16%	24%	24%	24%
Net profits	6,478	7,639	4,835	5,319	6,914	8,988.265
Growth YOY%		18%	-37%	10%	20%	30%
Net Profit margin		9%	7%	8%	8%	9%



### Expansion Plans

- JSW Steel won 4 iron ore mines in Odisha in the fourth quarter of FY20. The mines are said to contribute about 16mn tonnes.
- Acquisition of mines in Karnataka and Odisha for backward integration and raw material security
- The Company is currently implementing a capital expenditure plan of 48,715 crores over 5-year period from FY 2017-18 to FY 2021-22.
- Ongoing acquisition of Bhushan power and steel limited (BPSL)
- Asian colour coated Ispat limited (ACCIL): The company spent about 10,200 crores in FY2019-20 compared to its announced 15700 crore due to lockdown
- Capacity upgradation of blast furnace 3 (BF-3) from 3.0 MTPA to 4.5 MTPA, along with the associated auxiliary units, is under implementation. This helps the company to be operationally effective
- Two new lines of 0.45 MTPA each for construction grade galvanised products are under implementation along with new line for colour coated products
- Enrich the product mix with additional downstream capacity •
- Acquire and develop iron ore mines to achieve raw material security
- Achieve cost reduction through backward integration

### Financing for Expansion

- The company strong credit rating, healthy capital ratios
- The principal source of funding of the firm has always been and is expected to be cash flow from operating activities
- The other sources of funds would be the capital markets through which JSW Steel raised \$250 million. The overseas bond sale is an extension to its earlier issuance of \$500 million in October.
- The company also funds the capital projects with secured and unsecured term loan from banks
- The Company monitors its capital using gearing ratio, which is net debt divided to total equity.

### Analyst view

- Unlike few of its competitors, the company is capitalising on its foreign operations and EBITDA of US firms could turn out to be positive in the long term
- Looking at how Monnet Spat has managed to break even at EBITDA level, even US firms could become EBITDA positive
- The analyst believes that increase in JSW Steel's acquisitions in long steel sector be beneficial considering the increased number of government projects. This could continue because the company aim to make long steel 40% of the portfolio.
- The company's plan to integrate vertically by buying mines would reduce the risks of raw material shocks and increases security
- If the current lockdown or any strain of COVID would turn out to highly contagious then the current Dolvi expansion may not be successful
- The company's plan to enhance the product mix to both colour coated galvalume could help the company diversify its sectorial risk



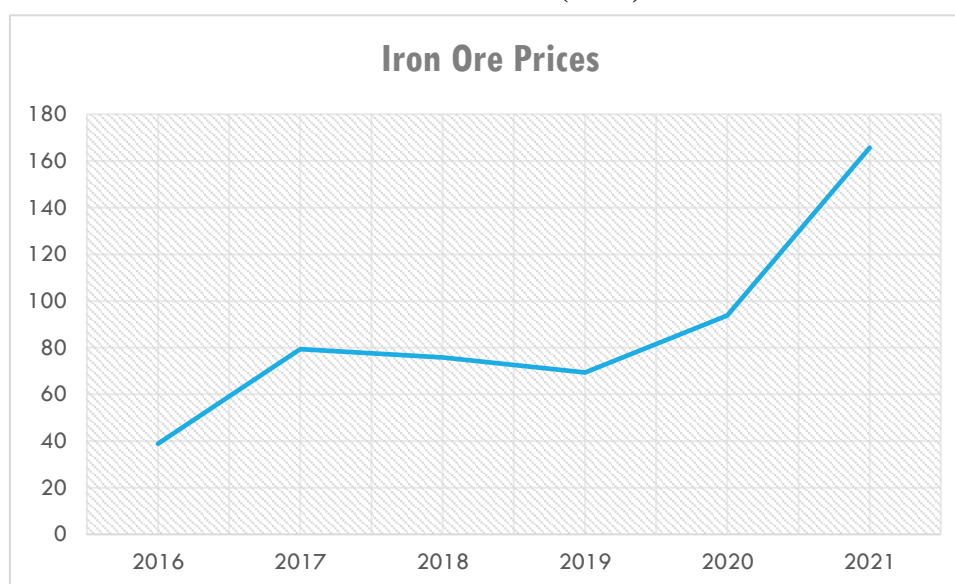
## Investment Thesis

### Future outlook on the sector

#### Supply

- Availability of raw materials might crop up as one of the major issues in the coming decade for the steel industries.
- Iron ore and coal are the primary raw materials required by the industry. They require 2 types of coal – Coking coal and Thermal coal.
- India imports more than half of its coking coal requirements. Therefore, we estimate that the cost of manufacturing is going to increase as the cost of raw materials is going to go up.
- The same issue can be seen with Iron ore as well. In FY19, many iron ore mines were shut down in Karnataka leading to a shortage of iron ore.
- This led to a sudden increase in prices. We estimate that this trend will continue in the future as well. Companies with no supplier partnerships or abundant resources might suffer heavily.

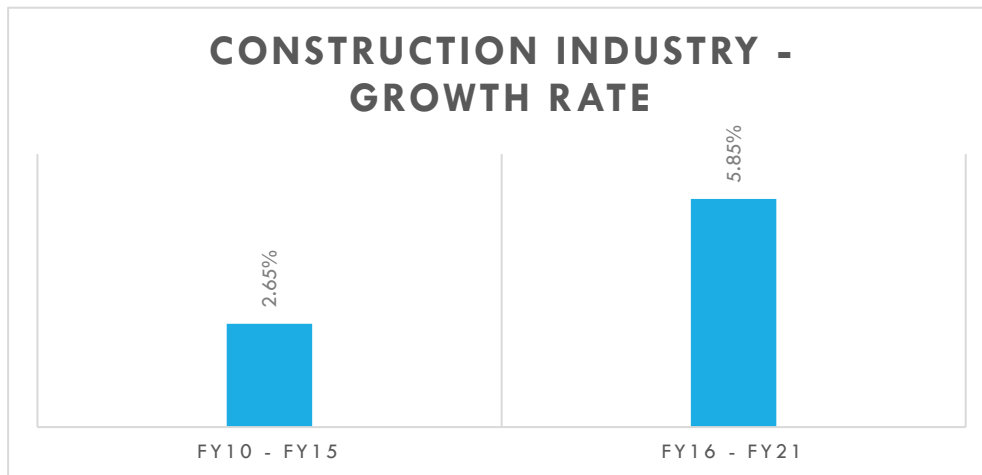
**Exhibit – Increase in Iron Ore Prices (USD)**



#### Demand

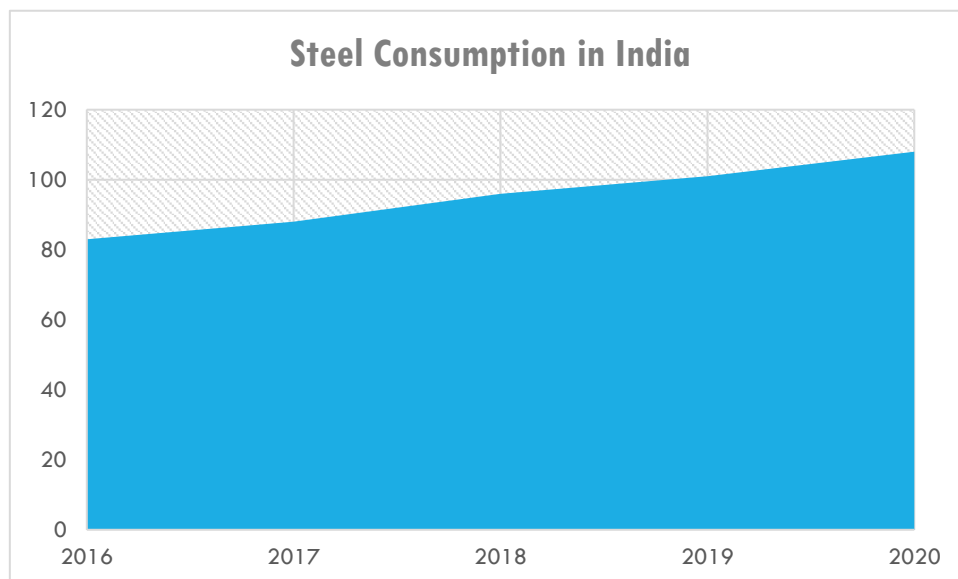
- Now coming to the demand side, demand is expected to go down in China due to saturation. However, demand is expected to go up in India and the other ASEAN countries.
- Therefore, companies in this region will have a huge boom in their business.
- As we have already discussed, construction and the auto industry are the biggest consumers of steel and therefore they will decide the future as well.

**Exhibit – Growth of construction industry in the last decade**



- The growth rate of the construction industry has almost doubled in the last 5 years showing the rapid rate at which it is growing.
- In FY20, the construction industry was the largest contributor to the country's GDP at **2.7 Trillion Rupees**.
- These figures ensure that the steel industry will have abundant demand in the years to come.
- The Auto industry has had a slight dip in the last 5 years (**4.9% from 5.5%**), the government has brought in a lot of policies to stir up the auto demand.
- Consumption Patterns too have been on the rise.

**Exhibit – Steel consumption in India (In Mn Tonnes)**



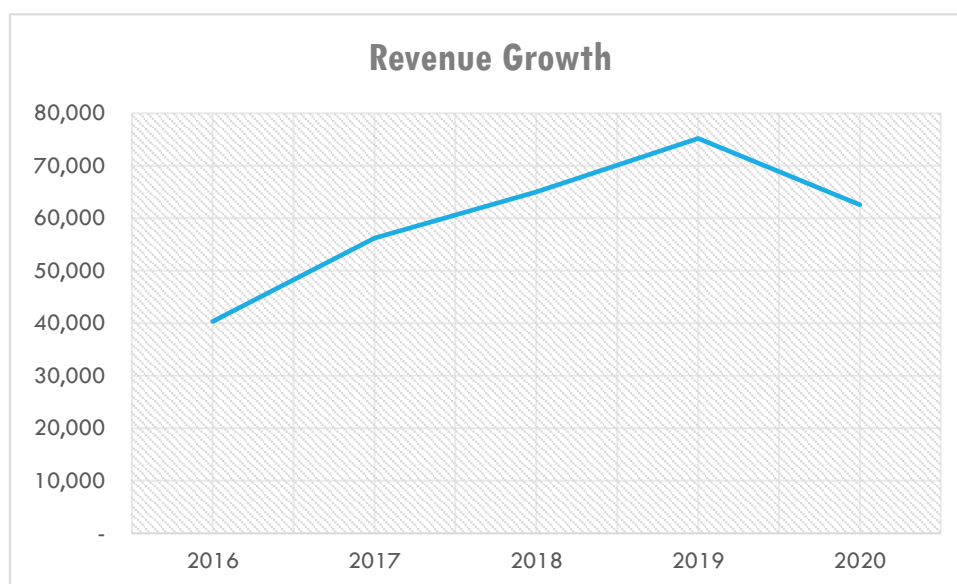
- India is the 3<sup>rd</sup> largest consumer of steel in the world and is expected to become the 2<sup>nd</sup> largest by 2025 showing huge potential for the steel industry.

## Analyst Opinion

- Cost of manufacturing will go up
- Cost of purchasing mines and making them operational will go up.
- However, there is enough demand in the market to offset these increases in costs.
- **The Indian Steel Industry has a bright future ahead.**

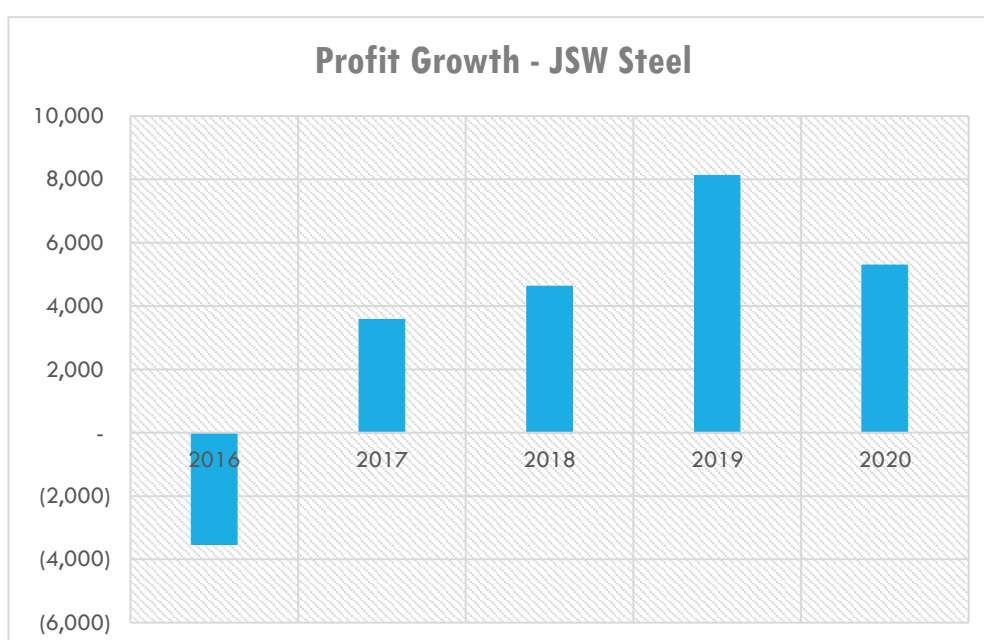
## Future Outlook for the Company

**Exhibit – Revenue growth over the years (In Cr Rupees)**



- Consistent revenue growth is seen until the pandemic which is an outlier.

**Exhibit – Profit growth over the years (In Cr Rupees)**



## JSW STEEL EQUITY RESEARCH REPORT

JSW Steel has not only been growing but has been growing profitably which is remarkable. They managed to remain profitable even during the pandemic unlike some of their peers.

Ratios	JSW Steel	Tata Steel	Jindal S&P	Average
<b>Leverage</b>				
Debt Equity	1.37	0.54	0.71	0.87
Interest Coverage	2.07	3.18	1.32	2.19
Financial Leverage	3.18	1.96	2.61	2.58
<b>Operating</b>				
Asset Turnover	0.56	0.42	0.61	0.53
Debtors Turnover	12.94	50.79	40.20	34.64
Payables Turnover	11.17	4.44	5.30	6.97
Inventory Turnover	6.29	5.50	9.65	7.15

- The company has making better use of leverage compared to its peers although there is a trend of deleveraging in the industry.
- JSW Steel is operationally as efficient as its peers. This is because both Tata Steel and Jindal S&P sell more than JSW.
- In time, as the business expands, the company expands, it will be able to take advantage of economies of scale and reduce its operational costs.
- In spite of this, JSW is the most profitable company as we have already seen earlier.

### Analyst Opinion

- The company has excellent future prospects.
- The costs are only going to come down due to economies of scale and the revenues are only going to go up due to increased demand.
- Upcoming projects such as IIM Sambalpur and the acquisition of mines in Odisha make the company very attractive.
- The acquisition of mines shows the presence of a very proactive management as iron ore prices are only going to increase.

## JSW STEEL EQUITY RESEARCH REPORT

### Valuation

EBITDA/EV calculation of JSW and 3 peer companies namely Tata Steel & JSW steel

JSW Steel	
Particulars	Amount (In Rs.CR)
Market Cap	97,897.43
Net Debt	55,398
Cash	14,506
EV	1,38,789.43

JSW	FY20	FY-21E	FY-22E	FY-23E
EBITDA	11,873	16,622	20,778	23,271
EBITDA/EV	11.69	8.35	6.68	5.96

Tata Steel	
Particulars	Amount (In Rs.CR)
Market Cap	87027
Net Debt	53473
Cash	11426
EV	1,29,074.00

Tata Steel	FY20	FY-21E	FY-22E	FY-23E
EBITDA	17,463	22,125	26,706	27,850
EBITDA/EV	7.39	5.83	4.83	4.63

Jindal Steel & Power	
Particulars	Amount (In Rs.CR)
Market Cap	30,401.00
Net Debt	36,000.00
Cash	9,519.00
EV	56,882.00

JSPL	FY20	FY-21E	FY-22E	FY-23E
EBITDA	7,853	10,426	9,707	9,261
EBITDA/EV	7.24	5.46	5.86	6.14

## JSW STEEL EQUITY RESEARCH REPORT

SAIL	
Particulars	Amount (In Rs.CR)
Market Cap	32,218.00
Net Debt	54,127
Cash	363
EV	85,982.00

SAIL	FY20	FY-21E	FY-22E	FY-23E
EBITDA	10,068	10,572	10,677	10,784
EBITDA/EV	8.54	5.38	5.33	5.27

### Peer comparison brief

Company	FY20	FY-21E	FY-22E	FY-23E
JSW	11.69	11.13	8.91	7.13
Tata	7.39	5.83	4.83	4.63
Jindal	7.24	5.46	5.86	6.14
SAIL	8.54	5.38	5.33	5.27

## Valuation using EV/EBITDA

Year	0	1	2	3
FY	FY-20	FY-21	FY-22	FY-23
Enterprise Value	138789.43			
Market Cap	85981			
EBITDA Optimistic (O)	11873	16622.2	20777.75	23271.08
Growth		40%	25%	12%
EBITDA Moderate (M)	11873	15434.9	18907.75	20798.53
Growth		30%	23%	10%
EBITDA Pessimistic (P)	11873	14247.6	17097.12	18806.83
Growth		20%	20%	10%
Target EV/EBITDA (O)	11.69	9.94	8.99	8.54
Growth		-15%	-10%	-5%
Target EV (O)		165159.4	186733.4	198684.3
Target EV (M)		153362.3	169927.4	177574.1
Target EV (P)		141565.2	153654.9	160569.4
Net Debt		60969	87204	81003
Cash		14506	14271	17472
Market Cap (O)		118696.4	113800.4	135153.3
Market Cap (M)		106899.3	96994.37	114043.1
Market Cap (P)		95102.2	80721.8	97038.3
Potential Returns (O)		38%	32%	57%
Potential Returns (M)		24%	13%	33%
Potential Returns (P)		11%	-6%	13%

## Valuation Assumptions

- The calculations for Moderate EBITDA are based on the historical EBITDA margins (21%)
- In Moderate EBITDA estimates, the EBITDA growth is calculated to be 24.5%
- The calculations for both Optimistic EBITDA is based on miraculous sales projections and reduced operating expenses due to well executed cost-effective strategies. The optimistic EBITDA is based on 24% EBITDA margin
- The EV estimates is not affected substantially due to estimated non-operating expense
- Net Debt and Cash remains constant



## Valuation using PAT

Year	FY-20	FY-21	FY-22	FY-23
<b>EBITDA</b>	11,873	16,622	20,778	23,271
<b>Other Income</b>	2676	470	272	200
<b>Interest</b>	-4265	-4013	-4932	-4840
<b>Depreciation</b>	-4,246	-4,355	-5,260	-5,848
<b>Tax</b>	-1319	-3,315	-3,590	-4,175
<b>Adjustments</b>	-2,297	76	356	330
<b>PAT</b>	2,422	5,333	6,912	8,278

Year	0	1	2	3
<b>FY</b>	FY-20	FY-21	FY-22	FY-23
<b>Market Cap / Price per Share</b>	85981			
<b>PAT / EPS</b>	2422	5335	6912	8278
<b>Target P/E</b>	35.5	25.56	20.448	19.4256
<b>Target Mcap / Price</b>		136362.6	141336.6	160805.12
		59%	64%	87%

## Valuation Assumptions

- Tax estimates includes both current tax and deferred Tax
- Optimistic PAT is estimated to increase by about 120% based on substantial increase (40%) in EBITDA estimates and one-time adjustment in the year 2020.
- The company's P/E in the year 2020 was about 35.5 and it is estimated to reduce by 20%.
- Other income includes minority interest.

## Source for all the Exhibits

- World Steel Association
- SteelMint
- Indian Brand Equity Foundation
- Annual Reports'
- Conference Calls
- Investor Presentations
- Steel Ministry of India
- Indian Steel Association