

## AN OVERVIEW OF STEEL SECTOR

### Global Scenario

In CY 2020, the world crude steel production reached 1878 million tonnes (mt) and showed a growth of 0.2% over CY 2019.

- China remained world's largest crude steel producer in 2020 (1064.8 mt) followed by India (100.3 mt), Japan (83.2 mt) and the USA (72.7 mt), based on rankings released by the World Steel Association.
- Per capita finished steel consumption in 2020 was 227 kg for world and 691 kg for China. The same for India was 70 kg (Source: JPC) in 2020-21.

*Note: World Steel Association report, Data Provisional.*

### Domestic Scenario

- The Indian steel industry has entered into a new development stage, post de-regulation, riding high on the resurgent economy and rising demand for steel.
- Rapid rise in production has resulted in India becoming the 2<sup>nd</sup> largest producer of crude steel during last three years (2018-2020), from its 3<sup>rd</sup> largest status in 2017. The country was also the largest producer of Sponge Iron or DRI in the world and the 2<sup>nd</sup> largest finished steel consumer in the world after China in 2020 (provisional), based on rankings released by the World Steel Association.
- In a de-regulated, liberalized economic/market scenario like India the Government's role is that of a facilitator which lays down the policy guidelines and establishes the institutional mechanism/structure for creating conducive environment for improving efficiency and performance of the steel sector.
- In this role, the Government has released the National Steel Policy 2017, which has laid down the broad roadmap for encouraging long term growth for the Indian steel industry, both on demand and supply sides, by 2030-31. The Government has also announced a policy for providing preference to domestically manufactured Iron & Steel products in Government procurement.

### Production

- Steel industry was de-licensed and de-controlled in 1991 & 1992 respectively.
- India was the 2<sup>nd</sup> largest producer of crude steel in the world in 2020.
- In 2020-21, production of total finished steel (alloy/stainless + non alloy) was 96.20 million tonnes (mt).
- Production of Pig Iron in 2020-21 was 4.88 mt, a decline of 10.0% over last year.

- India was the largest producer of Sponge Iron in the world in 2020. The coal-based route accounted for 82% of total Sponge Iron production (34.38 mt) in the country in 2020-21.
- Data on production of Pig Iron, Sponge Iron and Total Finished Steel (alloy/stainless + non-alloy) are given below for last five years:

<b>Indian steel industry: Production (in million tonnes)</b>					
<b>Category</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>	<b>2019-20</b>	<b>2020-21</b>
Pig Iron	10.34	5.73	6.41	5.42	4.88
Sponge Iron	28.76	30.51	34.71	37.10	34.38
Total Finished Steel	91.54	95.01	101.29	102.62	96.20
Source: Joint Plant Committee					

### **Demand - Availability**

- Industry dynamics including demand – availability of iron and steel in the country are largely determined by market forces and gaps in demand-availability are met mostly through imports.
- Interface with consumers exists by way of meeting of the Steel Consumers' Council, which is conducted on regular basis.
- Interface helps in redressing availability problems, complaints related to quality.

### **Steel Prices**

- Price regulation of iron & steel was abolished on 16.1.1992. Since then steel prices are determined by the interplay of market forces.
- Domestic steel prices are influenced by trends in raw material prices, demand – supply conditions in the market, international price trends among others.
- As a facilitator, the Government monitors the steel market conditions and adopts fiscal and other policy measures based on its assessment. Currently, GST of 18% is applicable on steel and there is no export duty on steel items.
- A Steel Price Monitoring Committee has been constituted by the Government with the aim to monitor price rationalization, analyze price fluctuations and advise all concerned regarding any irrational price behaviour of steel commodity.
- To avoid any distortion in prices in view of ad-hoc and rising imports, the Government had taken several steps including raising import duty and imposed a gamut of measures including anti-dumping and safeguard duties on a host of applicable iron and steel items. In a further move to curb steel

imports, the Indian government banned the production and sale of steel products that does not meet Bureau of Indian Standard (BIS) approval and to check the sale of defective and sub-standard stainless steel products used for making utensils and various kitchen appliances, it issued the Stainless Steel (Quality Control) Order, 2016 for products used in making utensils and kitchen appliances, that will help filter imports of the metal.

## Imports

- Iron & steel are freely importable.
- Data on import of total finished steel (alloy/stainless + non alloy) is given below for last five years:

<b>Indian steel industry: Import of Total Finished Steel (in million tonnes)</b>					
<b>Category</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>	<b>2019-20</b>	<b>2020-21</b>
Qty	7.22	7.48	7.83	6.77	4.75
Source: Joint Plant Committee					

## Exports

- Iron & steel are freely exportable.
- India emerged as a net exporter of total finished steel in 2016-17, 2017-18, 2019-20 and 2020-21.
- Data on export of total finished steel (alloy/stainless + non alloy) is given below for last five years:

<b>Indian steel industry: Export of Total Finished Steel (in million tonnes)</b>					
<b>Category</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>	<b>2019-20</b>	<b>2020-21</b>
Qty	8.24	9.62	6.36	8.36	10.78
Source: Joint Plant Committee					

## Levies on Iron & Steel

*SDF levy:* This was a levy started for funding modernisation, expansion and development of steel sector. The Fund, inter-alia, supports Capital expenditure for modernisation, rehabilitation, diversification, renewal & replacement of Integrated Steel Plants, Research & Development, Rebates to SSI Corporations among others. The SDF levy was abolished on 21.4.94. An Empowered Committee has been set up to guide the R&D effort in this sector.

*EGEAF*: This levy started for reimbursing the price differential cost of inputs used for engineering exporters. Fund was discontinued on 19.2.96.

## **Opportunities for growth of Iron and Steel in Private Sector**

### **The New Industrial Policy Regime**

The New Industrial policy opened up the Indian iron and steel industry for private investment by (a) removing it from the list of industries reserved for public sector and (b) exempting it from compulsory licensing. Imports of foreign technology as well as foreign direct investment are now freely permitted up to certain limits under an automatic route. Ministry of Steel plays the role of a facilitator, providing broad directions and assistance to new and existing steel plants, in the liberalized scenario.

### **The Growth Profile**

*(i) Steel* : The liberalization of industrial policy and other initiatives taken by the Government have given a definite impetus for entry, participation and growth of the private sector in the steel industry. While the existing units are being modernized/expanded, a large number of new steel plants have also come up in different parts of the country based on modern, cost effective, state-of-the-art technologies. In the last few years, the rapid and stable growth of the demand side has also prompted domestic entrepreneurs to set up fresh greenfield projects in different states of the country.

Crude steel capacity was 143.91 mt in 2020-21, and India, which was the 2<sup>nd</sup> largest producer of crude steel in the world in 2020, as per rankings released by the World Steel Association, has to its credit, the capability to produce a variety of grades and that too, of international quality standards.

*(ii) Pig Iron*: India is also an important producer of pig iron. Post-liberalization, with setting up several units in the private sector, not only imports have drastically reduced but also India has turned out to be a net exporter of pig iron. The private sector accounted for 86% of total production of pig iron (4.88 mt) in the country in 2020-21.

*(iii) Sponge Iron*: India, world's largest producer of sponge iron, has a host of coal-based units located in the mineral-rich states of the country. Over the years, the coal-based route has emerged as a key contributor and accounted for 82% of total Sponge Iron production in the country during 2020-21. Production of Sponge Iron making too has increased over the years and stood at 34.38 mt (2020-21).

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## DEVELOPMENT OF INDIAN STEEL SECTOR SINCE 2010-11

The economic reforms initiated by the Government since 1991 added new dimensions to industrial growth in general and the steel industry in particular. Licensing requirement for capacity creation was abolished, except for certain locational restrictions and the steel industry was removed from the list of industries reserved for the public sector. Automatic approval of foreign equity investment up to 100% was granted. Price and distribution controls were removed with a view to make the steel industry efficient and competitive. Restrictions on external trade, both in import and export, were removed with drastic reductions in import duty. General policy measures like reduction in import duty on capital goods, convertibility of rupee on trade account, permission to mobilise resources from overseas financial markets among others, also benefited the Indian steel industry. Today, as the 2<sup>nd</sup> largest crude steel producer globally and with a capacity of over 140 million tonne, the Indian steel industry has come a long way. The following are some key statistics of such growth in recent times.

### Production for Sale/Production

The following sections containing production data incorporates and highlights the above (changing) reporting system of JPC.

#### **a) Total Finished Steel Production/Production for Sale**

As per the JPC reporting system (*For Details: please refer to appendix*) prevailing till 2013-14, total finished steel production for sale was led by the *Majors and Other Producers* which had a dominant share compared to that of *Main Producers*.

Year	(a) Main Producers	(b) Majors and Other Producers	Production for sale (a+b)	%share of Majors and Other Producers
2010-11	18.407	50.214	68.621	73.2
2011-12	17.978	57.718	75.696	76.2
2012-13	19.244	62.437	81.681	76.4
2013-14	22.196	65.479	87.675	74.7

Source: JPC

Under the reporting system prevalent for 2014-15 to 2017-18 (*For Details: please refer to appendix*), it is seen that the share of *Other Producers* in total finished steel production has gradually diminished.

<b>Production of Total Finished Steel (alloy/stainless + non-alloy) (million tonnes)</b>				
<b>Period</b>	<b>(a) SAIL, RINL, TSL, ESL, JSW, JSPL</b>	<b>(b)Other Producers</b>	<b>Production (a+b)</b>	<b>% share of Other Producers</b>
2014-15	50.717	53.861	104.578	51.5
2015-16	52.375	54.227	106.602	50.9
2016-17	61.916	58.224	120.140	48.5
2017-18	69.143	57.712	126.855	45.5

Source: JPC

With effect from 2018-19, JPC reporting system has changed with the introduction of crude steel equivalent format of reporting. Under the new reporting system, it is seen that the share of *Other Producers* in total finished steel production has marginally increased.

<b>Production of Total Finished Steel (alloy/stainless + non-alloy) (million tonnes)</b>				
<b>Period</b>	<b>(a) SAIL, RINL, TSL Group, AM/NS, JSW, JSPL</b>	<b>(b)Other Producers</b>	<b>Production (a+b)</b>	<b>% share of Other Producers</b>
2018-19	61.283	40.004	101.287	39.5
2019-20	61.286	41.336	102.621	40.3
2020-21	55.322	40.882	96.204	42.5

Source: JPC; AM/NS =erstwhile Essar Steel

### **(b) Pig Iron Production / Production for Sale**

As per the JPC reporting system prevailing till 2013-14, total pig iron production for sale was led by the *Majors and Other Producers* which had a dominant share compared to that of *Main Producers*.

<b>Production for Sale of Pig Iron (million tonnes)</b>				
<b>Year</b>	<b>(a) Main Producers</b>	<b>(b) Majors and Other Producers</b>	<b>Production for sale (a+b)</b>	<b>%share of Majors &amp; Other Producers</b>
2010-11	0.579	5.104	5.683	89.8
2011-12	0.502	4.869	5.371	90.6

2012-13	0.674	6.196	6.870	90.7
2013-14	0.552	7.398	7.950	93.1
Source: JPC				

Under the reporting system prevalent for 2014-15 to 2017-18, it is seen that the share of *Other Producers* in total pig iron production has been dominant.

Production of Pig Iron (million tonnes)				
Period	(a) SAIL, RINL, TSL, ESL, JSW, JSPL	(b) Other Producers	Production (a+b)	% of share of Other Producers
2014-15	1.213	9.015	10.228	88.1
2015-16	1.287	8.953	10.240	87.4
2016-17	0.905	9.437	10.342	91.2
2017-18	0.726	5.002	5.728	87.3
Source: JPC				

With effect from 2018-19, JPC reporting system has changed with the introduction of crude steel equivalent format of reporting. Under the new reporting system, it is seen that the share of *Other Producers* in total finished steel production has been dominant.

Production of Pig Iron (million tonnes)				
Period	(a) SAIL, RINL, TSL Group, AM/NS, JSW, JSPL	(b) Other Producers	Production (a+b)	% of share of Other Producers
2018-19	1.663	4.751	6.414	74.1
2019-20	1.193	4.227	5.421	78.0
2020-21	1.413	3.464	4.877	71.0
Source: JPC; AM/NS =erstwhile Essar Steel				

### (c) DRI -Production/Production for sale

The production of DRI or Sponge Iron has been consistently strong and India has been the largest producer of DRI in the world since 2003, based on rankings released by the World Steel Association.

Production for Sale of Sponge Iron		
Year	Qty(million tonnes)	% change over last year
2010-11	25.081	4.2%
2011-12	19.633	(-) 21.7%
2012-13	14.329	(-) 27%
2013-14	18.204	27%
Source: JPC		

Under the current reporting system, production for sale has been replaced by gross production or simply production - a concept applicable across the spectrum, from iron-making to finished steel.

Production of Sponge Iron		
Year	Qty(million tonnes)	% change over last year
2014-15	24.24	5.9
2015-16	22.43	-7.5
2016-17	28.76	28.2
2017-18	30.51	6.1
2018-19	34.71	13.7
2019-20	37.1	6.9
2020-21	34.38	-7.3
Source: JPC		

#### Import and Export of Iron & Steel

Import of Iron and Steel			
Year	Pig Iron	Total Finished Steel (Non-Alloy + Alloy/Stainless)	Total Value(Pig Iron + Steel)
	('000 tonnes)	('000 tonnes)	(Rs. In Crores)
2010-11	9	6664	26996
2011-12	8	6863	27017
2012-13	21	7925	39347
2013-14	34	5450	30525



2009-10	23	9320	44994
2015-16	22	11711	45066
2016-17	34	7224	34277
2017-18	16	7483	39544
2018-19	67	7835	49368
2019-20	11	6768	44722
2020-21	9	4752	32154
Source : JPC			

Although India started exporting steel way back in 1964, exports were not regulated and depended largely on domestic surpluses. However, in the years following economic liberalization, export of steel recorded a quantum jump. Subsequently, the rapid growth of domestic steel demand has led to a decline in the rate of growth of steel exports from India to ensure that domestic requirements are adequately met. India is currently a net exporter of total finished steel.

Export of Iron and Steel					
Year	Pig Iron	Semis	Total Finished Steel	Total Steel**	Total Steel Value
	('000 tonnes)				(Rs. Crores)
2010-11	358	350	3637	3987	18433
2011-12	491	198	4588	4789	21946
2012-13	414	144	5368	5512	26912
2013-14	943	486	5985	6471	31315
2009-10	540	640	5595	6235	31283
2015-16	297	639	4079	4718	24083
2016-17	387	1192	8242	9434	38182
2017-18	518	1994	9620	11614	52812
2018-19	319	2183	6361	8544	40900
2019-20	422	2827	8355	11183	45102
2020-21	1099	6602	10784	17385	67131
Source : JPC; **Total Steel = Semis+ Total Finished Steel					

### Apparent Steel Use (ASU) or Consumption of Total Finished Steel

Apparent Steel Use (ASU) is obtained from the combined supply i.e. (production + imports) after adjusting for exports and materials consumed for downstream

processing and variation in stocks of total finished steel. The trend in Apparent Steel Use of total finished steel is shown below, year-wise.

Year	ASU: Total Finished Steel (million tonnes)	% change over last year
2010-11	66.423	11.9
2011-12	71.021	6.9
2012-13	73.482	3.5
2013-14	74.095	0.83
2009-10	76.994	3.9
2015-16	81.525	5.9
2016-17	84.042	3.1
2017-18	90.708	7.9
2018-19	98.71	8.8
2019-20	100.171	1.5
2020-21	94.891	-5.3
Source : JPC		

### **Additional Capacity Creation in Private Sector Since 1991**

Over time, with further opening up of the Indian economy, a focused reform process in place and a rapid but stable growth of the Indian economy, investments have flown significantly into the steel industry of the country with major investment plans announced in the states of Odisha, Jharkhand, Karnataka, Chhattisgarh and West Bengal. Rapid strides have also been made towards further progress and commissioning of new capacities like those in case of SAIL-RSP, SAIL-ISP, RINL, NMDC, Tata Steel, JSPL, JSW Steel, AM/NS (erstwhile Essar Steel) among others. Crude steel capacity in the country stood at 143.91million tonnes in 2020-21as per data released by the JPC while the National Steel Policy 2017 envisions domestic crude steel capacity reaching 300 million tonnes per annum by 2030-31.

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### *Appendix*

*i) As per the reporting system followed by Joint Plant Committee (JPC), which is authorized by the Ministry of Steel to collect and disseminate data on the domestic iron and steel industry, the said system prevailing till 2013-14 had (a) reported on the concept of*

production for sale and (b) featured the "Main Producers" and "Majors and Other Producers" as the two leading industry classifications at that time. However, effective from 2017-18, with the approval of the Ministry of Steel and following rounds of interaction with industry experts, the JPC reporting system had changed, in sync with the changing dynamics and mode of operation of steel industry and partly also in response to changes in the policy environment. Under the new system, production for sale has been replaced by Gross Production (or simply Production) with revision in past five years data as well. Secondly, with industry classification system getting dissolved vide guidelines issued by the Ministry of Steel in May 2016, the present JPC reporting system features (a) the composite group of "SAIL, RINL, TSL, ESL, JSW, JSPL" and that of "Other Producers".

ii) The issue of data collection and reporting by JPC was reviewed in details at various forum of interaction sessions with industry representatives as well as Ministry of Steel and it was felt that given the structural changes in the domestic steel industry as well as the present input-output dynamics, the data reporting system followed by JPC should undergo some modifications. The following modifications were made in JPC reporting system from 2018-19:-

a) It introduces the method of Crude Steel to HR equivalent, covering only those items which contribute directly to Finished Steel Production starting from Crude Steel/Semis Production.

b) It thus separates out Downstream and Value-Added Product Basket (CR/GP etc) which is reported separately. There is, however, no aggregate numbers of these parameters for the items in this Basket.

c) Also, data on imports, exports, stock variation and consumption of items featured in this Basket are available with JPC and are reported accordingly.

d) Steel Consumption is arrived at by standard procedure of adjusting Finished Steel Production with Net Imports and Stock Variation, computed by using all items across the value chain, so as to ensure no loss of data.

e) Per capita steel consumption is computed by using steel consumption numbers as arrived at above and population for the country as reported by Central Statistical Organisation (CSO), Ministry of Statistics and Programme Implementation.

iii) From April 2020 onwards, all units owned by Tata Steel will be grouped under a single name - "TSL Group" in the JPC reporting system. Such a change follows the advice arising out of different meetings with MoS and industry in various forum for a group concept of reporting and is for statistical use only. Also, following its change in ownership, Essar Steel's name has been changed to AM/NS.

It may be noted, that all throughout such changes, the system of reporting by JPC continues to be for statistical use only.

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