"A STUDY ON STEEL TRADE OF INDIA SINCE 2017"

A dissertation submitted to the School Of Maritime Management, Indian Maritime University in the partial fulfillment of

MASTER OF BUSINESS ADMINISTRATION
in
PORT AND SHIPPING MANAGEMENT

By

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May 2023

DECLARATION

I, **Ekansh Goyal** , do hereby declare that the dissertation entitled **"A STUDY ON STEEL TRADE OF INDIA SINCE 2017"**is exclusively a bonafide work done by me under the supervision and guidance of **Dr. Emil Mathew**, Assistant Professor, School of Maritime Management and is submitted to Indian Maritime University in partial fulfilment of the requirement for the award of the degree of Master of Business Administration.

I further declare that no part of this report has been previously submitted to any other university or academic body for the award of any degree or diploma.

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SCHOOL OF MARITIME MANAGEMENT
INDIAN MARITIME UNIVERSITY

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CERTIFICATE

This is to certify that the project report titled **"A STUDY ON STEEL TRADE OF INDIA SINCE 2017"** is a bonafide work done by Ekansh Goyal (Reg.No:- 2103304009) in partial fulfillment of the requirement for the award of the degree of Master of Business Administration in Indian Maritime University, Chennai.

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Place - Chennai

Date -16/05/2022

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EXECUTIVE SUMMARY

Steel is an essential component of every country's economy and is regarded as one of the modernisation's driving forces. Steel consumption per capita is regarded as one of the most important markers of a country's socioeconomic progress and living standards. Steel remains the most environmentally benign and recyclable of engineering materials.

India has surpassed Japan as the world's second-largest steel producer, and it is on track to become the world's second- largest steel consumer.In FY 22 The total production of steel was around 125 MT

The Indian steel industry is thriving, with a compound annual growth rate of roughly

5% to 6% year on year.In FY 22 India export of steel went up to 13.5MT and import fall down to 4MT.

The current scenario necessitates an immediate policy boost to protect the industry from global pressures while also stimulating demand. . This research paper aims to offer a comprehensive overview of the steel sector in India, highlighting its growth, problems, and economic effect.

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CHAPTER 1

INTRODUCTION

Metals have long been a driving force behind industrialisation. Steel has always held a leading position among metals. Steel production and consumption are commonly viewed as markers of economic success as a raw material and intermediate product. As a result, it is not an exaggeration to claim that the steel sector has always been at the forefront of industrial progress and is the foundation of any economy.

The steel industry is the pulse of an economy, indicating the general direction of the economy. The industry primarily assesses a country's or regions economic success. This is due to its widespread application in a variety of end-user industries, notably infrastructure, which is a major steel consumer.

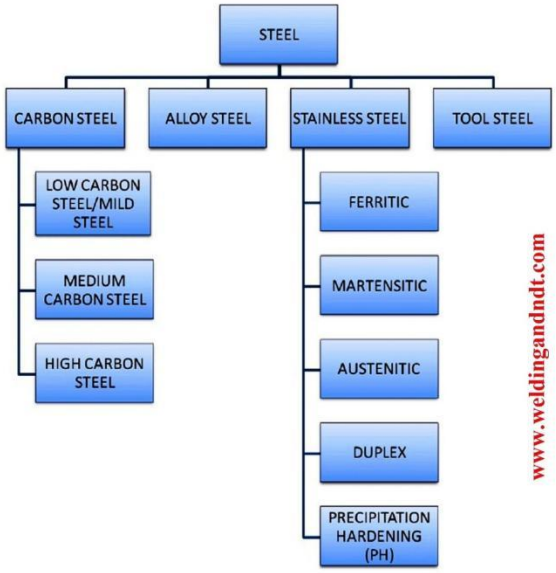
1.1 Classification of Steel

Steel is an iron-carbon alloy with less than 2% carbon and 1% manganese, as well as trace of quantities which are silicon, phosphorus, sulphur, and oxygen. Steel producers generally make three sorts of products: flat steel, long steel, and alloy steel.

The main or base element in steel is: Iron

Main (principal) alloying element in steel is: Carbon

Other Alloying Steel Elements are- Manganese,Silicon,Nickel,Chromium,Vanadium,Titanium,Niobium, Aluminum, etc.



1.2 TYPES OF STEEL

Based on the chemical compositions, Steel can be categorized into four (04) basic types:

- Carbon Steel
- Stainless Steel
- Alloy Steel
- Tool Steel

1) CARBON STEEL

Carbon steel is the most utilized steel in industries and accounts for over 90% of the total steel production. Based on the carbon content, Carbon steels are further classified into three groups.

- Mild Steel
- Medium Carbon Steel
- High Carbon Steel

S.No.	Type of carbon steel	Percentage of Carbon
1	Low Carbon Steel/Mild steel	Up to 0.25%
2	Medium Carbon Steel	0.25% to 0.60%
3	High Carbon steel	0.60% to 1.5%

2) STAINLESS STEEL

Stainless steel is an alloy steel that contains 10.5% Chromium (Minimum). Stainless steel exhibits corrosion resistance properties, due to the formation of a very thin layer of Cr2O3 on its surface. Increasing the amount of Chromium will further increase the material's corrosion resistance.. Stainless steel also contains varying amounts of Carbon, Silicon, and Manganese.

Stainless steels are further classified as;

- . Ferritic Stainless Steel
- Martensitic Stainless Steel
- . Austenitic Stainless Steel
- . Duplex Stainless Steel
- . Precipitation-Hardening (PH) Stainless Steel

3)ALLOY STEEL

In alloy steel, varying proportions of alloying elements are used, to achieve desired (improved) properties such as ductility, machinability, strength, harden ability, corrosion resistance, etc. Some of the most used alloying elements and their effects are as follows;

- **Manganese:** Increases strength and hardness, decreases ductility.
- **Silicon**: Used as deoxidizers used in the steel-making process
- **Phosphorus:** Increases strength and hardness and decreases ductility and notch impact toughness of steel.
- **Sulphur-** Decreases ductility, notch impact toughness Found in the form of sulfide inclusions.
- **Copper**: Improved corrosion resistance

4)TOOL STEEL

Tool Steel is a type of carbon alloy steel that is well-matched for tool manufacturing, such as hand tools or machine dies. Its hardness, resistance to abrasion and ability to retain shape at increased temperatures are the key properties of this material. Tool steel is typically used in a heat treated condition which provides increased hardness.

1.3 Production of Steel

Steel is made in two ways:

• Iron ore-based steel accounts for around 70% of global steel production. Steel is made from iron ore that has been reduced to iron. Iron ore, coal, limestone, and recycled (scrap) steel are the primary inputs.

• Scrap-based steel accounts for around 30% of total steel production worldwide. Steel is recycled in an EAF to make it. Recycled steel and electricity are the primary inputs. Other sources of metallic iron, such as direct reduced iron (DRI) or hot metal, can be utilised in the EAF route depending on the plant layout and availability of recycled steel.

1.4 Global Steel Development

India's steel industry has undergone remarkable growth in recent years, owing to increased capacity, resulting in India being the world's fourth largest producer of crude steel (after China, Japan, and the United States) and the world's largest producer of sponge iron.

Steel prices are often volatile due to the global steel industry's extremely cyclical nature. Steel prices are directly affected by rising raw material prices. Overcapacity, a surplus of cheaper Chinese steel imports, the broader economy, and moves to alternative replacements have all had a substantial influence on steel pricing. India's finished steel production has increased by over 6%, whereas globally steel production declined by 4.2% in calendar year 2022”

1.5 Top 10 largest Steel Producing Countries in the World:

In 2022 the globe produced and used over 1,950 million metric tonnes of crude steel. Emerging economies are rapidly ascending the production ladder, with some accounting for up to 50% of total crude steel output.

1. <u>China:</u>

China exceeded all expectations in 2021, producing an incredible 1337 million metric tonnesof crude steel.

- China's excess crude steel output has alarmed various countries, notably the United States, the European Union, and India, who fear it has opened Pandora's Box.

- China is in negotiations with the US and other major economies about its extremely inexpensive excess exports.

2. India:

- According to leading economists quoted in reputable publications, India is on track to surpass Japan as the world's second largest producer of crude steel. After reaching 100.3 million metric tonnes at the end of 2020, the world's fourth-largest economy quickly increased by 11% to 118 million metric tonnes in February 2021 and in 2022 it went upto 120 million metric tonnes.
- India's biggest steel producers include TATA Steel Group, Steel Authority of India Ltd. (SAIL), and JSW Steel Limited. These companies are also known as some of the world's largest export-quality steelmakers.

3. Japan:

- Despite up and down, Japan's steel output quantity has remained above 104 million metric tonnes, down from 110.6 million metric tonnes in 2014..
- The main steel producers in Japan are Nippon & Sumitomo and JFE.
- With 40.4 million metric tonnes shipped worldwide, Japan remains the world's second largest exporter of complex, high-grade steel. Despite the drop in production, export growth has increased by 22 percent. Japan's steel is primarily purchased by South Korea, Thailand, and China.

4. The United States of America:

- The United States' steel health does not appear to be improving after a steep reduction in crude steel production from 88.2 million metric tonnes to 86 million metric tonnes in 2021.
- According to market analysts, cheap, excess imports from large emerging nations are pressuring domestic steelmakers in Western markets to close plants and lay off workers, resulting in a production gap. As we know The United States, which is also the world's largest steel importer,
- Despite this, the United States continues to export high-grade steel to roughly 150 countries, with Canada and Mexico being the major importers. The three largest steel companies in the United States are Nucor, US Steel, and ArcelorMittal.

5. Russia

- Russia possesses the third-largest iron ore reserves in the world, behind only Australia and Brazil, and is one of the world's leading exporters of both iron ore and steel.
- Following a surge in production in 2014, Russia's steel production silos have slowed, with output reaching 68.6 million metric tonnes in 2016. However, Russia produced over 75.6 million metric tonnes of steel in the first quarter of 2021.
- With 75.6 million metric tonnes of steel exports in 2021, Russia maintains its position as the world's fifth largest steel exporter. Since 2011, the global power has seen a dramatic 22 percent increase in overall exports.
- Russia's top export destinations are Turkey, Taiwan, and Mexico. Novolipetsk Steel, Evraz Group, and Severstal JSC are the three largest steel producers in Russia.

6. South Korea

- South Korea is the world's sixth largest steel manufacturer, with over 70.4 million metric tonnes processed in 2021.
- The country is also the world's fourth largest exporter of crude steel. China, the United States, and Japan are the top three buyers.
- South Korean steel exports have reached approximately 30.3 million metric tonnes, with POSCO and Hyundai Steel Co. as the leading producers.

7. Turkey:

- Turkey's steel silos and production facilities are reviving after a steady drop in production owing to regional political uprisings, with a strong increase from 31.5 million metric tonnes to 40.4 million metric tonnes (or 15.4% growth) as of 2021.
- Steel exports in Turkey increased by 2% in 2016, from 14.8 million metric tonnes in 2015 to 15 million metric tonnes in 2016. As we know The United States, Egypt, and the United Arab Emirates are the biggest buyer of Turkic steel.

8)Germany:

- Germany, which is known for its high-grade steel, is still the world's seventh largest crude steel producer.
- Its steel output in 2021 was 40.4 million metric tonnes, a little decline from 2019 but in 2022 it further declined to 36 Million metric tonnes .
- The technological centre is presently the sixth largest crude steel exporter in the world.
- Steel produced in Germany is consumed in France, Poland, and the Netherlands. Steel from Germany is widely used in the automobile and armament industries.
- Germany's main steel producers are ThyssenKrupp, ArcelorMittal, and Salzgi.

9) Brazil:

- Brazil's crude steel output has fallen by about three million metric tonnes due to the country's economic crisis, and is now at 36.2 million metric tonnes in 2021..
- According to the group, the country's crude steel output fell by about 9.2 percent.
- This has impacted related industries, such as automotive. Brazil’s steel exports decreased by 2% to 13.4 million metric tonnes.
- Gerdau, ArcelorMittal, USIMINAS, and CSN are the main steel producers in Brazil.

10) Iran

- Iran produced 31 Million Tonnes of Crude Steel which is 10% more than the previous year.
- Main Producer of iron steel in Iran are Mobarekh Steel Company
- Iran Export Steel to Thailand,UAE

1.6 Global Ranking of Indian Steel

Table-1-World Steel Production

Rank	Country	Qty (MT)	% change over the same period of last year(2021)
1	China	1014	-2.1
2	India	125	5.5
3	Japan	89	-7.4
4	USA	81	- -5.9
5	Russia (e)	71.5	-6.1
6	South Korea	65.9	-6.5
7	Turkey	36.8	-8.4
8	Germany	35.1	-12.6
9	Brazil	34	-5.8
10	Iran	30.6	8.0
	World	1878.5	-4.2

1.7 Sectors of High Demand in Sale for Steel

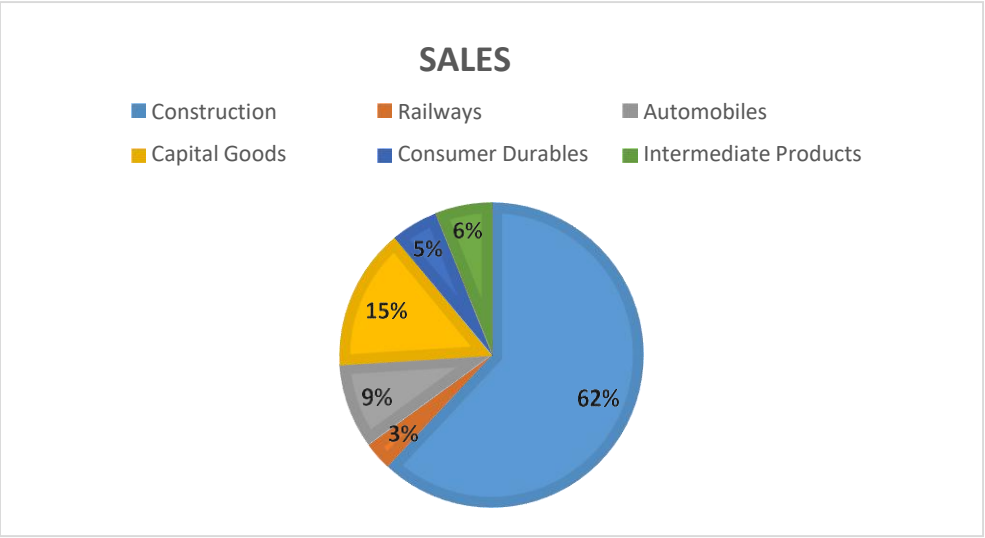


Figure 2: Sector-wise demand for steel

Construction sector

The sector, which includes physical infrastructure (excluding railroads) and real estate, accounts for about 62 percent of India's steel consumption.

In 2018, the construction industry was valued at over USD 500 billion. By 2025, India will have surpassed China as the world's third largest construction market. The government's current focus area on infrastructure will promote growth in this sector as well as total steel consumption

Many Projects like Sagarmala Project ,expansion for National Highway etc.

Railways:

This sector, which accounts for 3% of total steel consumption, is rapidly expanding. It increased by 13.4% in 2018 and is predicted to increase by more than 20% in 2019. Steel demand is predicted to increase dramatically as a result of projects such as 100 percent track electrification (electrification of 16,540 track km by 2021–22), dedicated freight corridors (of over 3350 km) connecting industrial clusters in western and eastern India, and high-speed rail lines.

Automobiles:

India has the world's fourth-largest automobile industry. In India, it accounts for roughly 9% of total steel demand. India is the world's top producer of two-wheelers, three-wheelers, and tractors, as well as the world's fourth and seventh largest producers of passenger and commercial vehicles.

Capital Goods:

About 15% of steel demand comes from this industry. It is divided into various sub-sections, the most notable of which is machinery and equipment. Construction and earth-moving machinery, plant machinery, heavy electrical machinery, and machine tools are all part of the machinery and equipment industry

Consumer Durables:

About 5% of India's steel demand comes from this sector. India is a consumption-driven economy with a long history of strong development in this sector.

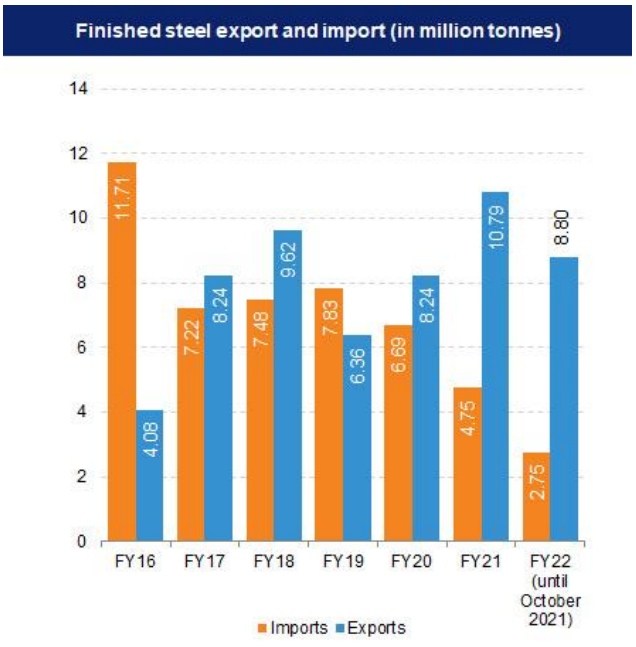
Intermediate products:

The remaining 6% of India's steel demand comes from this sector. Apart from industrial activities, this segment is directly tied to the auto sector, as well as the oil and gas sector.

1.8 Present Status of Indian steel Market

In FY22, crude steel and finished steel output were 98.39 MT and 92.82 MT, respectively. Crude steel output is predicted to reach 112-114 MT (million tonnes) in FY22, up 8- 9 percent Year on Year, according to CARE Ratings. In FY22, finished steel consumption reached 86.3 MT.

Finished Steel Import and Export from FY 2016 to FY 2022



1.9 Indian steel industry growth potential

India's steel industry has risen emphatically as of late, fundamentally to solid homegrown interest. Beginning around 2008, homegrown steel request has move by practically 80%, while yield has expanded by 75%. Steel creation limit has expanded in lockstep, with a natural development.

The Indian government has continually upheld the steel area, making the National Steel Policy in 2017, which projects the business' development way until 2030-31. Coming up next are the vital parts of the approach:

By 2030-31, steel creation limit is assessed to surpass 300 million tons each year.

• At 85% limit usage, unrefined steel creation is assessed to arrive at 255 million tons by 2030-31.

• Creation of completed steel to arrive at 230 million tons, expecting a 10% yield misfortune in the transformation of unrefined steel to completed steel, or a change proportion of 90%.

• By 2030-31, utilization is anticipated to arrive at 206 million tons, with net commodities of 24 million tons.

• Thus, steel utilization per capita is supposed to move to 160 kg.

While the Indian government's National Steel Policy of 2017 is a record, it does highlight the steel industry's future potential in India. India produced 110.9 million tonnes of crude steel last year,

1.10 Investments

In recent years, the steel industry, as well as its related mining and metallurgical industries, have experienced significant investments and innovations.

According to data supplied by the Department for Promotion of Industry and Internal Trade (DPIIT),Indian metallurgical industries garnered US$ 16.1 billion in FDI between April 2000 and December 2022. The following are some of the notable investments in the Indian steel industry:

- Tata Steel said in October 2021 that it will build further scrap-based plants with a capacity of at least a billion tonnes by 2025.
- JSW Steel spent Rs.150 billion (US$ 19.9 million) in Jammu and Kashmir in October 2021 to establish a steel facility and stimulate manufacturing in the area.
- In October 2021, ArcelorMittal and Nippon Steel Corp.'s joint venture steel business in India announced plans to invest Rs. 1 trillion (US$ 13.34 billion) over ten years to expand its activities in the nation..
- Shyam Metalics and Energy Ltd. (SMEL) stated in June 2021 that it plans to treble its

production capacity over the next 3-4 years by investing Rs. 2,894 crore (US$ 389.72 million)in brownfield development at two of its facilities

- Tata Steel BSL partnered with FarEye, a software logistics start up, in February 2021 to boost its digital transformation process.
- Indian steel industries have begun increasing steel production capacity in order to become self-sufficient. In September 2020, SAIL announced the increase of capacity at five of its steel facilities.
- JSW Steel has set a target of 1.5 lakh tonnes of TMT Rebars for metro rail projects across the nation in FY20.
- JSW Steel has set aside US$ 4.14 billion in capital expenditures to boost its entire steel production capacity from 18 million to 23 million tonnes by 2020.

1.11 Objectives

- To evaluate and analysis of the steel export and import of India
- To carry out an analysis to understand the steel trade of India

1.12 Research Methodology

Data Collection: The study is entirely based on secondary data (during a ten year period) gathered from several Government Of India websites, journals, and other related sources to see the performance of import and export of steel in India.

Statistical Techniques: The acquired data was analysed using a variety of statistical tools and techniques such as pie charts, graphical representation, among others.
Using pie charts and graphical representation of data for the comparative analysis.

1.13 Scope

The study is undertaken at a national sector for exporting and importing of steel in India. Raw materials, production and finished goods are covered under this survey.

The underlying focus is to determine the impact that the export and import of steel has on the Indian economy. The top steel producing companies have been discussed along with their latest contribution to productionof steel.

1.14 Limitations

- All analyses have been limited by the data provided in the annual reports of the steel industry.
- All the data used in this study is secondary data.

CHAPTER 2

LITERATURE REVIEW

Ghosh and Chatterjee (2008), Chadha (1989): India is credited as being the first to manufacture and use iron and steel, dating back over three thousand years. Following independence, the Indian government assumed control and limited capacity creation to the public sector. During the 1950s and 1960s, the government developed four integrated steel plants: Durgapur, Bhilai, Rourkella, and Bokaro. During that time, the Indian steel industry received technological assistance from the former Soviet Union, the Federal Republic of Germany, and the United Kingdom. More than 200 steel mills were granted licences by the Indian government in the early 1970s, but many of them were forced to close down in the second half of the decade due to a lack of crucial inputs and a severe power crisis. To resuscitate the sector in the 1980s, the Indian government launched a three-pronged strategy (i. expansion of existing steel facilities, ii. setting up new capacity, and iii. modernization and upgradation of technology in existing plants to achieve higher productivity).

Government of India(2003), Sengupta (2004), Bagchi (2005), Banerjee (2005), Muthuraman (2006), Research Bharti Bala and De (2009), Burang and Yamini (2010) : Due to increased demand for steel from the infrastructure, building, automobile, and power sectors, the Indian steel industry saw a phenomenal increase in crude and finished steel production during that time. However, the global recession of 2008 had a significant impact on the business. To keep steel prices stable, Indian steel companies were required to reduce production. The profit margin is significantly impacted by high raw material prices and a demand-supply mismatch in the steel industry.

Burange and Yamini (2008), from 1971 to 2008, the focus was on the performance of the Indian iron and steel sector as well as corporate competitiveness. The data for the study came from SAIL's annual report and the commercial and industrial department's annual report. Tables and CAGR approaches were used in the study for data display. The researcher analysed variables such as production, export, and import in the analysis and discovered that iron output has increased steadily since India's independence.

Indian steel industry (2009), centred on the 2002-2007 Prepared for the Competition Commission of India The analysis is based on secondary data obtained from the annual report of the CARE steel industry and the India statistical report. The study was carried out for the purpose of data presentation, which included the usage of tables and the growth rate. The researcher examined variables such as production, export, and import in the study and discovered that iron output rose continuously after financial changes.

S. Mukherjee & S. Mukherjee (2012): The performance of India's exports and other related elements impacting exports were examined; manufactured exports account for a large portion of the country's overall exports, and the increasing relevance of exports in the country's economic growth was identified.

Paudel, R.C. (2014): For the period 1975-2008, the impact of liberalisation on India's exports was examined using the ARDL approach, and it was discovered that export supply is impacted by domestic output, whilst export demand is driven by global demand. The study found that liberalisation changes had a positive influence on India's industrial exports.

Jayakumar et.al (2014): By establishing the relationship between foreign direct investment, imports, and exports of India, and finding a positive link between FDI and exports and imports, the relevance of many factors of India's imports and exports was highlighted.

Prasad et.al (2014): By analysing the current trade scenario in both global and Indian trade, the study suggested various general and specific policy measures such as export infrastructure, market diversification, export promotion schemes, and the formation of Regional Trading Agreements, among others, to compete in the global emerging trade scenario.

Goyal, S. (2016): Exports are important because they contribute to the country's economic growth by contributing to foreign exchange reserves. The study looked at the current trends in Indian exports and found that, despite the US subprime crisis, India's merchandised exports grew at a phenomenal pace of 15.79 percent during a ten-year period (2004-05 to 2013-14).

Veermani, C. (2012): The post-reform growth and pattern of India's merchandise exports were examined. The study found that the first decade after reforms had a lower export growth rate (8%), compared to the second decade's growth rate (12%). (21 per cent). India's export destination has

shifted significantly from traditional developed countries to emerging markets.

Export and Import Performance of Steel of India By A.Muthuswamy

As we know that Steel is crucial to the event of any fashionable economy and is taken into account the backbone of human civilization. At present, developing countries lead the expansion in world steel demand. India is presently the world's third largest producer of crude steel and is anticipated to become the largest producer of crude steel within the world before long. The country is additionally the third largest client of finished steel (83.5 Million Tonnes in 2016) within the world preceded by China (681 Million Tonnes in 2016) and also the USA (91.6 million tonnes in 2016.

Steel occupies this position due to its skillfulness, strength and recyclability. The steel sector contributes to over two of the country's gross domestic product and employs around 25

lakhs utilized in steel/allied sectors.

The Indian steel division was the first center segment to be totally liberated from the permitting routine.Since 1991, the segment has seen predictable changes including disposal of estimating and dispersion controls. The Indian iron and steel industry has traversed a long way since the primary steel plant went into activity in 1907. India was the third biggest impresario of steel in the world and the third maximum employer of steel in 2017. Steel Industry in 2017 additionally indicates a great standpoint for the Indian steel industry.

Although the threat of Steel imports had arisen, Indian steel companies have invested heavily in modernizing and expanding their existing units and environment friendly operational plants to create a world - class, cost - efficient,environmentally friendly and socially responsible industry. In addition to emphasizing the competitiveness, the Indian steel industry is fully geared towards improving the exports of steel to other developed countries for the purpose of gaining profits. In this role, the Government initiatedNational Steel Policy 2017, which set out the broad road map for supporting long term economic growth for both the demand and supply sectors of the Indian steel industry by 2030 - 31

CHAPTER 3

PATTERN OF STEEL PRODUCTION IN INDIA

3.1 Indian Steel Association (ISA)

In both local and international arenas, the Indian Steel Association (ISA) represents the Indian steel industry. It is at the centre of all discussions on public and regulatory policy, raw resources, international trade, logistics, environmental issues, technology, and other areas of steel production. The Indian Steel Industry looks on ISA to help it achieve its crucial goal of sustainable growth in steel production and domestic demand generation.

ISA was founded in 2014, with eight full members and ten associates. Steel Authority of India (SAIL) and Rashtriya Ispat Nigam Ltd (RINL) are full members, while private-sector giants include Tata Steel Limited, Tata Steel BSL Ltd, JSW Steel Ltd, Jindal Steel and Power Ltd, ArcelorMital Nippon Steel India Ltd, and Bhushan Power and Steel Limited. ISA, as an affiliate member of the World Steel Association (WSA), engages with WSA on event planning and attends other critical meetings with worldwide partners on a regular basis.

Seven Full Members are

- Steel Authority of India Ltd.
- JSW Steel Ltd.
- Rashtriya Ispat Nigam Ltd.
- ArcelorMittal Nippon Steel India Ltd.
- Jindal Steel & Power Ltd.
- Tata Steel Limited
- Bhushan Power and Steel Ltd.

Our Ten Affiliate Members are

- Monnet Ispat & Energy Ltd.
- INSDAG (Institute for Steel Development and Growth)
- KISMA (Karnataka Iron and Steel Manufacturer's Association)
- Arjas Steel

- Jindal Stainless
- Electro steel Steels
- Shyam steel
- Orissa Metalliks Pvt. Ltd
- Tata Steel Long products
- Rungta Mines Limited

3.2 Domestic Scenario:

The Indian steel business has entered a new age of development as a result of deregulation, riding high on the recovering economy and rising steel demand.

India has risen from third to second place as the world's second largest producer of crude steel in the last three years (2018-2020), up from third place in 2017. According to World Steel Association rankings given in 2020 (provisional), the country was also the world's largest producer of sponge iron or DRI and the world's second largest finished steel consumer after China.

In this role, the government has announced the National Steel Policy 2017, which lays out a comprehensive roadmap for long-term growth in the Indian steel sector, both on the demand and supply sides, by 2030-31. In addition, the government has adopted a policy of giving domestically manufactured iron and steel goods priority in government procurement

Most of the iron and steel plants are located in a region that spreads over four states

West Bengal,Orissa,Jharkhand .

.

3.3 Top 5 Steel companies in India

- **TATA Steel**

Tata Steel is one of the largest steel companies in India, with a capacity of over 28 million tonnes per year. The company is a subsidiary of the Tata Group and has operations in 26 countries worldwide. Tata Steel is known for its high-quality steel products and is a major supplier to the automotive, construction, and infrastructure industries in India. Tata Steel is the second largest producer of steel in Europe.

They have the sales of around 1 Crore.

- **Vedanta**

Vedanta entered the steel industry when it bought a 90% share in ESL Steel Limited (ESL). In June 2018,.Vedanta plans to use brownfield development to grow its steel operations in Bokaro and become one of the country's top steel producers. Vedanta Ltd aims to focus on long goods and ductile iron products as part of its 5-million-tonne brownfield development.

- **JSW Steel**

It is one of the topmost and fastest growing company of India.They operates in more than 140 countries and after merging with ispat it become the second largest private sector steel company of India

- **Steel Authority of India Limited (SAIL)**

Steel Authority of India Limited (SAIL) is one of India's largest steel producers. It is a steel corporation owned by the Indian government and based in New Delhi. SAIL produces iron and steel primarily in India's eastern and central regions, close to local raw material sources, through five integrated plants and three unique steel mills. Steel items are manufactured and distributed by the corporation. An annual output of 16.30 million metric tonnes, SAIL is the world's 20th largest steel maker and India's largest. The company has a capacity of over 24 million tonnes per year and is known for its high-quality steel products

- **Jindal Steel and Power**

Jindal Steel and Power Ltd is owned by the OP Jindal Group (JSPL). The company's steel capacity in India is 8.6 million tonnes per year, with a. JSPL has global mining operations in Mozambique (coal), South Africa (coal), and Australia (coking coal). It recently sold its 2.4 million tonne Oman steel factory to the promoter firm and aims to sell JPL's electrical assets as well.

3.4 Production of Indian Steel Plant (Isp) And Other Producers of Raw Steel To Finished Steel

('000 TONNES)

SL. NO.	ITEM / PRODUCER	2017	2018	2019	2020	2021(P)
	PRODUCTION					
I.	**CRUDE STEEL:**					
	SAIL, TSL Group, RINL, AM/NS, JSWL, JSPL					
	Oxygen Route	41,298	46,059	46,764	42,878	50,892
	E.A.F. Units	17,048	20,513	21,889	21,190	22,165
	Other Producers					
	Oxygen Route	4,811	2,949	1,909	1,774	2,041
	E.A.F. Units (incl.Corex & MBF/EOF)	9,840	7,773	6,741	6,974	9,715
	Induction Furnaces	28,457	31,955	34,041	27,439	33,322
	TOTAL (Crude Steel)	**1,01,455**	**1,09,250**	**1,11,344**	**1,00,256**	**1,18,134**
	% share of Other Producers	42.5	39.1	38.3	36.1	38.2
II.	**PIG IRON :**					
	SAIL, TSL Group, RINL, AM/NS, JSWL, JSPL	724	1,358	1,435	1,250	1,582
	Other Producers	6,164	4,891	4,548	3,298	4,294
	TOTAL (Pig Iron)	**6,888**	**6,249**	**5,983**	**4,548**	**5,876**
	% share of Other Producers	89.5	78.3	76.0	72.5	73.1
III.	**SPONGE IRON :**					
	Gas Based	6,223	7,052	6,699	6,074	8,402
	Coal Based	23,282	27,161	30,120	27,519	30,606
	TOTAL (Sponge Iron)	**29,505**	**34,213**	**36,819**	**33,593**	**39,008**
	% share by Process (Coal Based)	78.9	79.4	81.8	81.9	78.5

IV. FINISHED STEEL (Production)(Alloy/Non-Alloy) :						
	SAIL, TSL Group, RINL, AM/NS, JSWL, JSPL	51,915	59,154	61,450	54,659	63,957
	Other Producers	41,823	41,420	42,612	37,571	47,901
	TOTAL (Finished steel)	**93,737**	**1,00,574**	**1,04,062**	**92,231**	**1,11,858**
	% share of Other Producers	44.6	41.2	40.9	40.7	42.8

Table 2: PRODUCTION OF ISP AND OTHER PRODUCERS

3.5 Production:

• In 1991 and 1992, the steel industry was de-licensed and de-controlled, respectively.

• In 2020, India was the world's second-largest producer of crude steel.

• Total finished steel output (alloy/stainless + non-alloy) was 96.20 million tonnes in 2020-21. (mt).

• Pig iron production in 2020-21 was 4.88 mt, down 10.0 percent from the previous year.

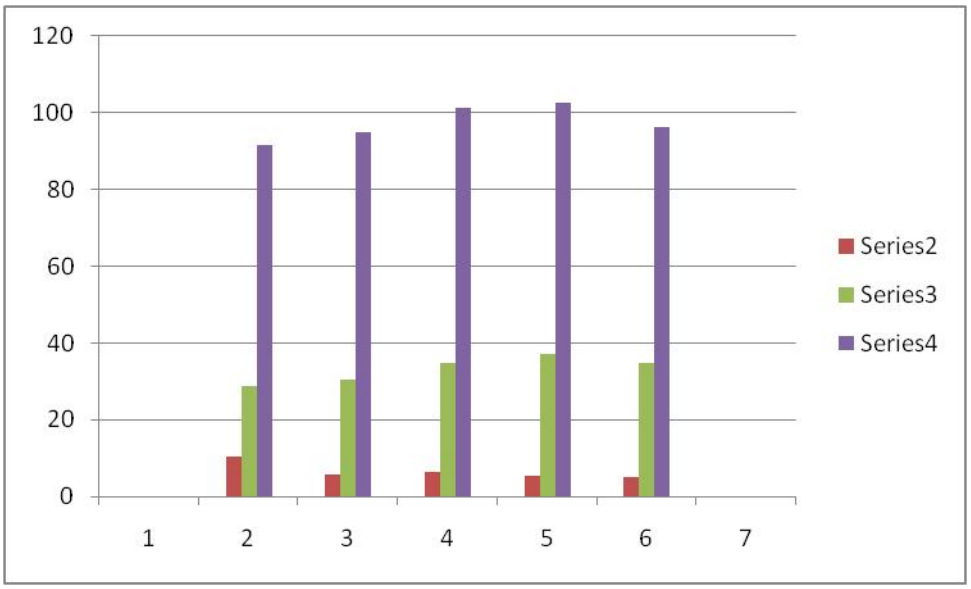
• India was the world's largest sponge iron producer in 2020. The coal-based technology accounted for 82% of total Sponge Iron production in 2020-21. (34.38 mt).

•For the previous five years, production figures for pig iron, sponge iron, and total finished steel (alloy/stainless + non-alloy) are presented below:

Indian steel industry: Production (in million tonnes)					
Category	**2016-17**	**2017-18**	**2018-19**	**2019-20**	**2020-21**
Pig Iron	10.34	5.73	6.41	5.42	4.88
Sponge Iron	28.76	30.51	34.71	37.1	34.38
Total Finished Steel	91.54	95.01	101.29	102.62	96.2
Source: Joint Plant Committee					

Table 3: Production of steel for the past 5 years

INDIAN STEEL INDUSTRY PRODUCTION(IN BILLION)



Here Series 2 represent Pig iron,Series 3 Represent Sponge Iron and Series 4 represent Total Finished steel

3.6 Demand – Availability:

• Demand - iron and steel availability in the country is mostly determined by market factors, and demand deficits are often addressed through import

• Steel Consumers' Council, which meets on a monthly basis to handle availability difficulties and quality complaints, contacts consumers.

Steel Costs:

• On 16.1.1992, iron and steel price restriction was eliminated but after liberalization then, the interaction of market forces has set steel pricing.

India has a competitive edge in steel manufacturing due to the following factors:

- The two critical inputs to steel manufacture, high-grade iron ore and non-coking coal, are both available locally.
- Domestic and international markets are expanding.
- MSME industry that is thriving
- Competitive labour prices and a youthful workforce

In comparison to the global average of 208 kg, India's current per capita steel consumption is 69 kg. If we concentrate on rural regions, the figure falls to 10 kg. This suggests that India has a significant consumption growth potential.

India is expected to see massive demand growth in the coming decade as a result of government initiatives such as affordable housing in urban and rural areas, railway network expansion, development of the domestic shipbuilding industry as part of the Sagarmala project, opening up of the defence sector for private participation, and growth in the automobile sector. In fact, by 2030-31, demand is expected to quadruple, reaching 230 MT.

3.7 Indian Steel Sector Development Since 2010-11

Economic changes implemented by the government since 1991 have added new dimensions to industrial growth in general and the steel sector in particular. Except for particular locational limitations, the steel industry was removed from the list of industries designated for the public sector, and licencing was no longer required for capacity increase. Automatic permission was granted for up to 100 percent foreign equity involvement. Price and distribution limits were removed in order to make the steel industry more efficient and competitive. Import tariffs were dramatically reduced, and limitations on both import and export commerce were eliminated. The Indian steel sector profited from general policy measures such as lower import duties on capital goods, rupee convertibility on trade accounts, and the ability to raise funds from international financial markets, among others. The Indian steel industry has come a long way to become the world's second largest crude steel manufacturer, with a capacity of about 140 million tonnes. The following are some recent notable statistics on such increase.

3.7.1 Production/Production for Sale

The production data in the following parts incorporates and illustrates JPC's aforementioned (changing) reporting system.

a) Total Finished Steel Production/Sale Steel Production

According to the JPC reporting system, the Majors and Other Producers had a larger share of total finished steel output for sale in 2013-14 than the Main Producers.

Total Finished Steel Production/Production for Sale				
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				

Table 4 : Total finished steel production

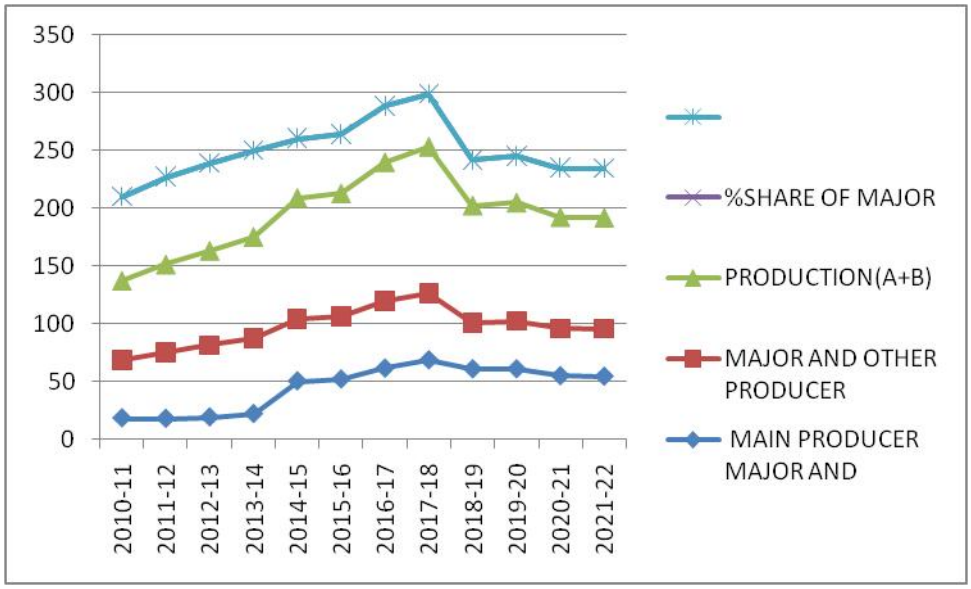
According to the reporting system in use from 2014-15 to 2017-18, Other Producers' share of total finished steel output has gradually decreased.

Production of Total Finished Steel (alloy/stainless + non-alloy) (million tonnes)				
Period	(a) SAIL, RINL, TSL, ESL, JSW, JSPL	(b)Other Producers	Production (a+b)	% share of Other Producers
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	120.14	48.5
2017-18	69.143	57.712	126.855	45.5
Source: JPC				

Table 5: Total Finished Steel Production (alloy/stainless + non-alloy) (million tonnes

Production of Total Finished Steel (alloy/stainless + non-alloy) (million tonnes)				
Period	(a) SAIL, RINL, TSL Group, AM/NS, JSW, JSPL	(b)Other Producers	Production (a+b)	% share of Other Producers
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				

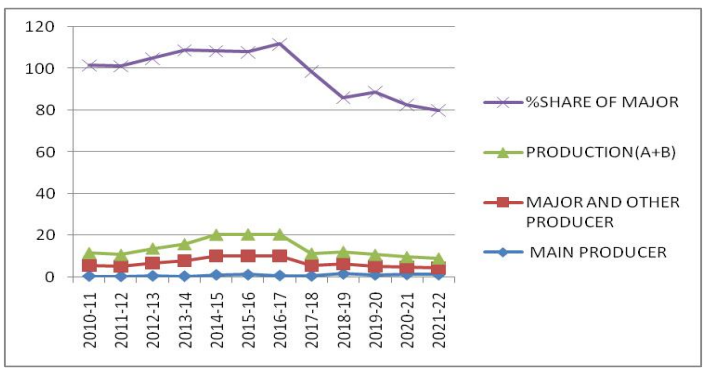
Table 6: Total Finished Steel Production (alloy/stainless + non-alloy) (million tonnes)



(b) Pig Iron Production/Sale Production

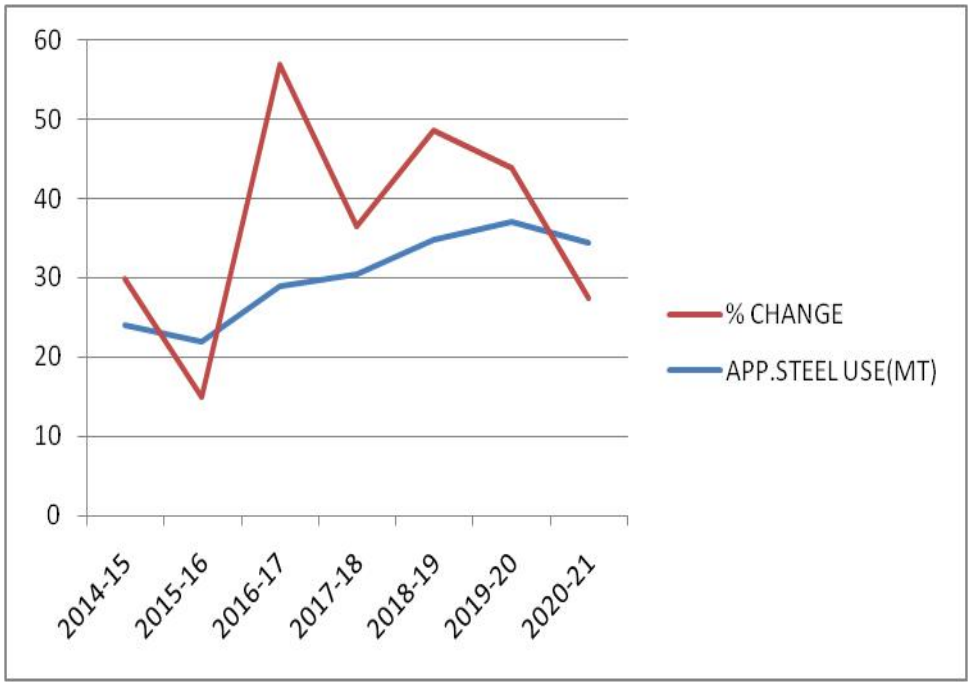
YEAR	MAIN PRODUCER	MAJOR AND OTHER PRODUCER	PRODUCTION(A+B)	%SHARE OF MAJOR
2010-11	0.6	5.2	5.8	90
2011-12	0.5	4.9	5.4	90.5
2012-13	0.7	6.2	6.9	91
2013-14	0.55	7.4	7.95	93
2014-15	1.21	9	10.21	88
2015-16	1.29	9	10.29	87.4
2016-17	0.9	9.4	10.3	91.2
2017-18	0.7	5	5.7	87.3
2018-19	1.7	4.7	5.8	74
2019-20	1.2	4.2	5.4	78
2020-21	1.4	3.5	4.8	73
2021-22	1.3	3.2	4.5	71

TABLE 7:PRODUCTION OF PIG IRON(MILLION TONNE)



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		

Table 8: Production of Sponge Iron

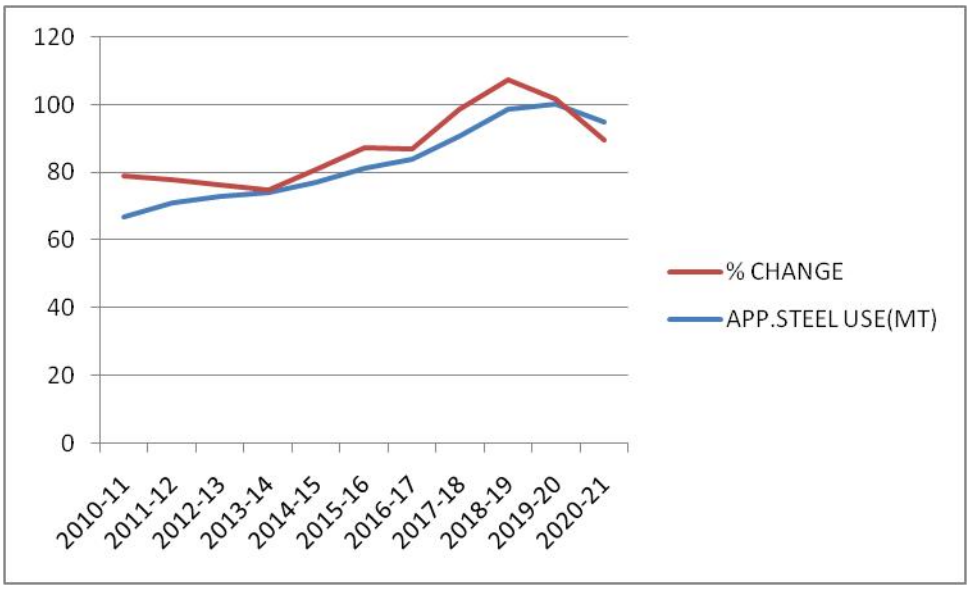


3.8 Total Finished Steel Consumption (TFSC)

Apparent Steel Use is computed from the combined supply, i.e. (production + imports), after accounting for exports, materials utilised in downstream processing, and variations in total finished steel inventories. The graph below shows the annual trends in Apparent Steel Use of total finished steel.

YEAR	APP.STEEL USE(MT)	% CHANGE
2010-11	67	12
2011-12	71	7
2012-13	73	3.5
2013-14	74.1	0.83
2014-15	77	4
2015-16	81.5	6
2016-17	84.04	3
2017-18	90.7	8
2018-19	98.7	8.8
2019-20	100.17	1.5
2020-21	94.9	-5.3

Table 9: Total Finished Steel Consumption (ASU) or Apparent Steel Use (ASU).



Production, Consumption and Growth of Steel

Year	Total Finished Steel (alloy + non-alloy)(in Million Tonnes)			
	Production	Import	Export	Consumption
2017	93.737	7.828	10.871	88.679
2018	100.574	7.295	6.692	96.737
2019	104.062	7.440	8.205	102.622
2020	92.231	4.463	10.150	89.331
2021*	111.858	5.001	12.799	106.134

Table 10 Consumption of Total Finished Steel

Here, from 2017-2021 there is a rise in production, dip in the imports, rise in exports and also a steady rise in the consumption. There is an overall dip during the year 2020 due to the covid-19 situation and its effect of trade.

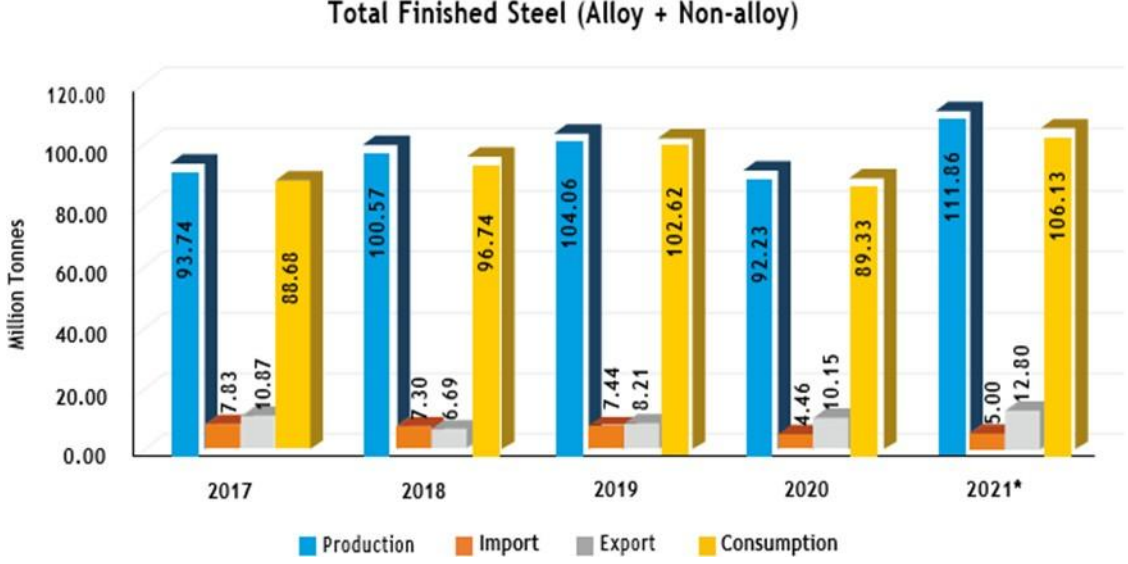


Figure 6: Total Finished Steel (Alloy + Non-alloy)

Data on crude steel production, capacity and capacity utilization

Year	Crude steel		
	Capacity (MT)	Production (MT)	Capacity Utilization (%)
2017	137.975	101.455	74
2018	142.236	109.250	77
2019	142.299	111.344	78
2020	143.914	100.256	70
2021	154.269	118.134	77

Table 11: Total Finished Steel (Alloy + Non-alloy)

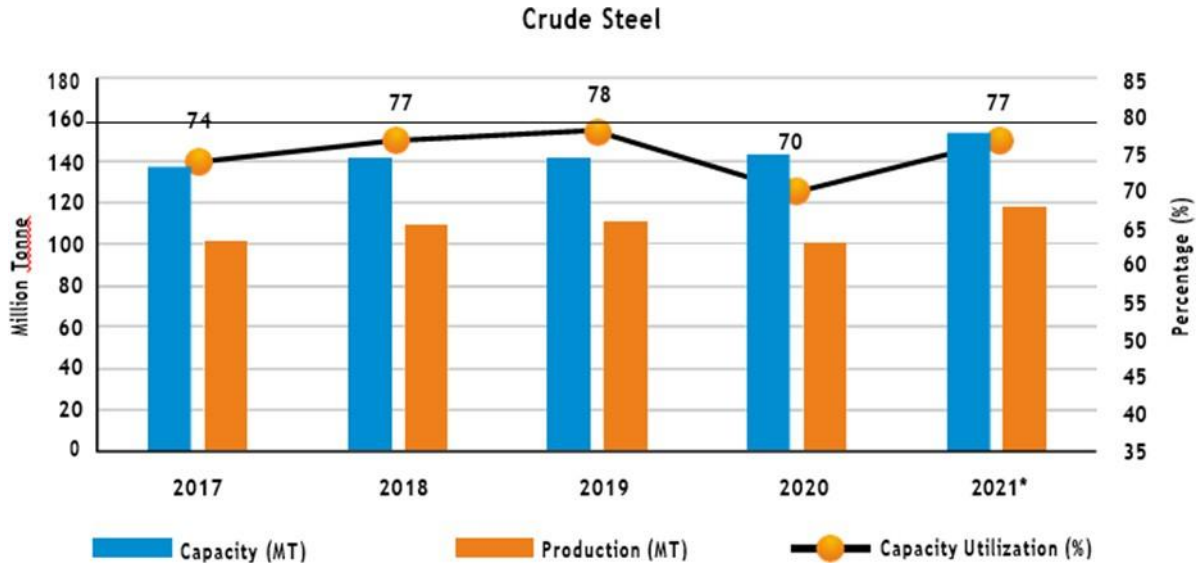


Figure 7: Crude Steel

Source: steel.gov.in, JPC; *Provisional figure (January-December, 2021)

- Crude steel output increased from 101.455 metric tonnes in 2017 to 118.134 metric tonnes in 2021.
- During this five-year period, capacity expansion drove up output from 137.975 Million Tonnes (MT) in 2017 to 154.269 MT in 2021.
- Total Finished Steel (alloy + non-alloy) domestic consumption was 106.134 MT in 2021, up from 88.679 MT in 2017.
- Total Finished Steel (alloy + non-alloy) exports were 12.799 MT in 2021, up from 10.871 MT in 2017; Total Finished Steel (alloy + non-alloy) imports were 5.001 MT in the same year, down from 7.828 MT in 2017
- In the year 2021, India was a net exporter of total finished steel.

3.9 Role of Private Sector in Steel Industry

With the Indian economy continuing to open up, a focused reform process in place, and a fast but stable growth rate, investments have flooded into the country's steel sector, with major investment plans announced in Odisha, Jharkhand, Karnataka, Chhattisgarh, and West Bengal. SAIL-RSP, SAIL-ISP, RINL, NMDC, Tata Steel, JSPL, JSW Steel, and AM/NS have all made rapid progress toward commissioning new capacity (formerly Essar Steel). According to JPC statistics, the

country's crude steel capacity was 143.91 million tonnes in 2020-21, with domestic crude steel capacity expected to reach 300 million tonnes per year by 2030-31, according to the National Steel Policy 2017.

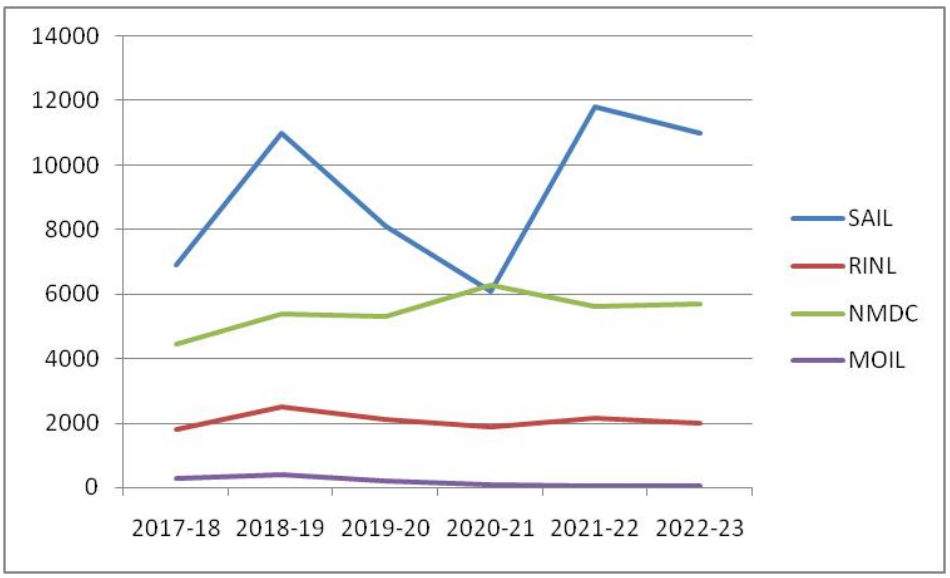
3.10 Revenue Contribution To The Central And State Governments

- **CONTRIBUTION MADE TO THE CENTRAL GOVERNMENT AND INSURANCE COMPANIES BY THE STEEL PSU'S**

(Rs. in crore)

Sl. No.	PSU/COMPANY	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
1.	SAIL	6894	10916	8094	6074	11806	11000
2.	RINL	1810	2518	2119	1888	2170	2016
3.	NMDC Ltd.	4435	5376	5300	6269	5607	5700
4.	MOIL Ltd.	262.07	381.15	188.61	95.17	44.83	50

TABLE N0 12-CONTRIBUTION MADE BY PSU TO CENTRAL GOVT.



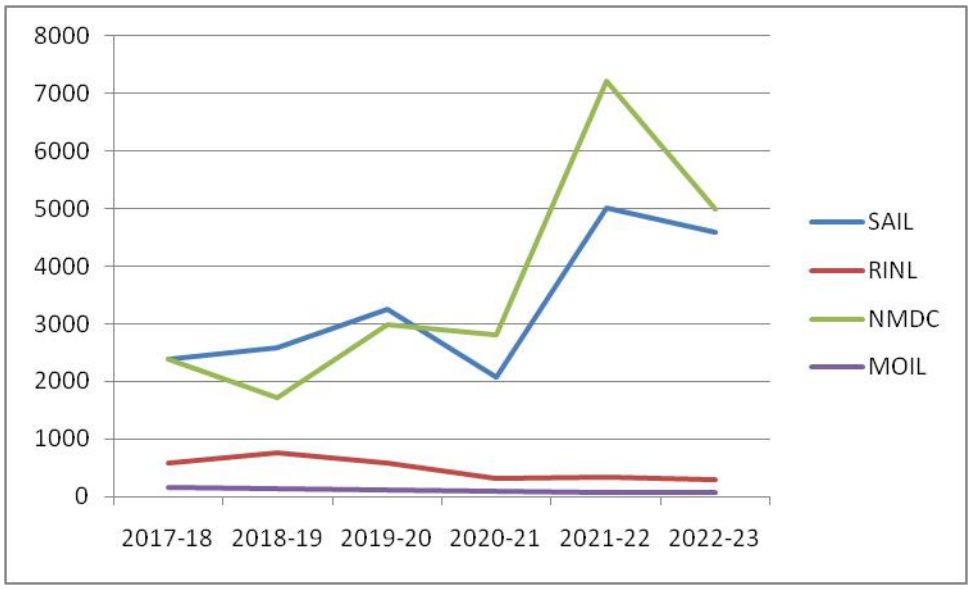
Through this we can understand the contribution made to the central govt by Public Sector Unit,in that SAIL has contributed more followed by RINL and at last least contribution made to the central govt by MOIL ltd

- **CONTRIBUTION MADE TO THE STATE GOVERNMENT BY THE STEEL PSUs**

(Rs. in crore)

S. No.	PSU/COMPANY	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
1	SAIL	2402.00	2604	3250	2084	5008	4500
2	RINL	584.66	767.37	587.91	322.26	331.98	290.5
3	NMDC Ltd.	2381	1726	2997	2809	7029	5000
4	MOIL Ltd.	148.50	123.43	111.07	90.49	73.46	65

TABLE NUMBER 13-CONTRIBUTION MADE BY PSU TO STATE GOVT



CHAPTER 4

STEEL EXPORT PERFORMANCE OF INDIA

4.1 INTRODUCTION

India's all-time high steel consumption of roughly 106 million tonnes and output of 120 million tonnes demonstrates not just the sector's resiliency, but also the steel industry's unparalleled grit and resolve. The steel sector's outstanding success led to India's all-time high of $420 billion in goods exports. The Indian steel industry is thriving, with a compound annual growth rate of roughly 5% to 6% year on year.

Due to increased investment in infrastructure and industrial production, the sector is expected to grow significantly in the coming years as a result of our government's policy announcements and changes in global supply-demand equations across sectors such as railways, roads, aviation, gas pipelines, and housing.

4.2 Category-Wise Export of Iron And Steel

('000 TONNES)

CATEGORY	2017	2018	2019	2020	2021 (P)
SEMIS (Non-Alloy)	**1,530**	**2,259**	**2,660**	**6,087**	**5,236**
FINISHED STEEL (Non-alloy)					
Non-Flat					
Bars & Rods	1,972	615	529	767	1,966
Structurals	194	196	167	120	179
Railway Materials	84	4	1	23	2
Total Non-Flat	**2,250**	**815**	**697**	**910**	**2,147**
Flat					
Plates	459	462	291	521	756
H R Coils/Sheets	3,766	2,479	4,603	6,467	5,814
C R Sheets/Coils	1,390	748	636	470	1,007
GP/GC Sheets	1,270	1,025	930	814	1,769
Elec. Sheets	72	79	35	46	38
Tin plates	46	39	27	16	35

Tin Free Steel	2	2	2	2	2
Pipes	646	426	253	136	130
Total Flat	**7,651**	**5,260**	**6,777**	**8,472**	**9,551**
Total Fin. Steel (Non-Alloy)	9,901	6,075	7,474	9,382	11,698
Total Steel (Non-Alloy)	11,431	8,334	10,134	15,469	16,934
Non-Flat Alloy/Stainless	530	289	268	254	604
Flat Alloy/Stainless	441	327	462	514	496
Total Finished Steel (Alloy/Stainless)	**971**	**616**	**730**	**768**	**1,100**
Semi-Finished (Alloy/Stainless)	29	35	9	46	12
Total Steel (Alloy/Stainless)	**1,000**	**651**	**739**	**814**	**1,112**
Total Fin. Steel (Non-Alloy+Alloy)	**10,872**	**6,691**	**8,204**	**10,150**	**12,798**
Total Steel (Non-Alloy + Alloy)	**12,431**	**8,985**	**10,873**	**16,283**	**18,046**

Table 14: Category – wise Export of Iron and Steel

Steel is in various forms. Depending on the usage, steel is exported in various forms as a semi-finished products and finished products. The exports semi-finished goods has increased by around 40 % from 2017 to the present scenario. However, the trend in the non-flat steel is not encouraging as it has declined upto 60% in the pandemic time which has now reached to pre-covid stage. The export pattern of both alloy and non-alloy steel has a linear growth since 2017.

4.3 India's Top 10 Export Partners of Steel

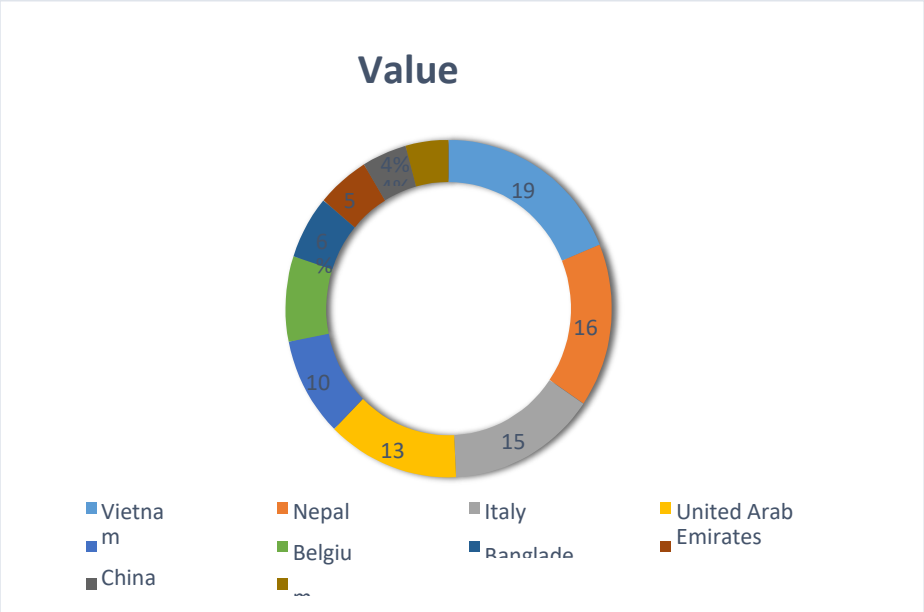


Figure 8: Category – wise Export of Iron and SteeL

Exports of iron and steel to China soared by nearly 1400 percent to USD 524 million in June 2020, compared to USD 35 million the previous month. Exports of iron and steel to Vietnam increased by over 700 percent to USD 183 million, while exports to Taiwan increased by over 200 percent to USD 35 million.

Iron and steel is one of India's top 10 export commodities, with a huge increase since June 2020, when the country entered when the country came out of the corona virus lockdown.

4.4 Year Wise Export of Steel

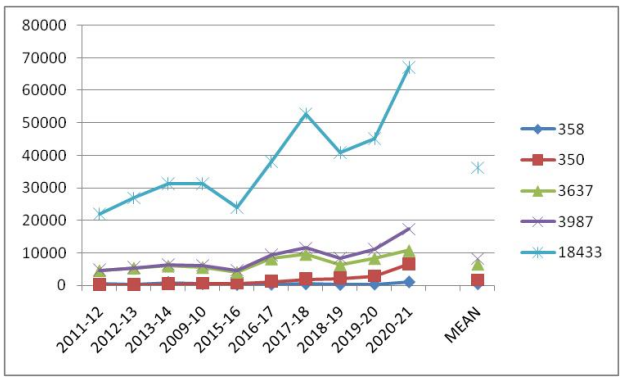
• Steel and iron can be freely exported.

• In 2016-17, 2017-18, 2019-20, and 2020-21, India became a net exporter of total finished steel.

•For the last ten years, the following data on total finished steel exports (alloy/stainless + non alloy) is provided:

YEAR	PIG IRON	SEMIS	TOTAL FINISHED STEEL TONNES	TOTAL STEEL (IN TONNES)	TOTAL STEEL(IN 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
MEAN	526.18	1568.636364	6601.272	8170.181818	36190.81818

TABLE 15-YEAR WISE EXPORT OF STEEL



India's completed steel exports hit a new high in the fiscal year April 2021-March 2022, as better foreign pricing encouraged Indian mills to increase shipments.

Provisional figures from the steel ministry's joint plant committee (JPC) reveal that completed steel exports increased by 25% year on year to 13.5 million tonnes in 2021-22, compared to 10.8 million tonnes the previous financial year. Alloyed and non-alloyed steel make up finished steel.

According to the United Nations COMTRADE database on international commerce, India's iron and steel exports totalled $21.2 billion in 2021. The data, historical chart, and

statistics on India's iron and steel exports were last updated on May of 2022

4.5 Revenue Obtained From India Through Steel Exports

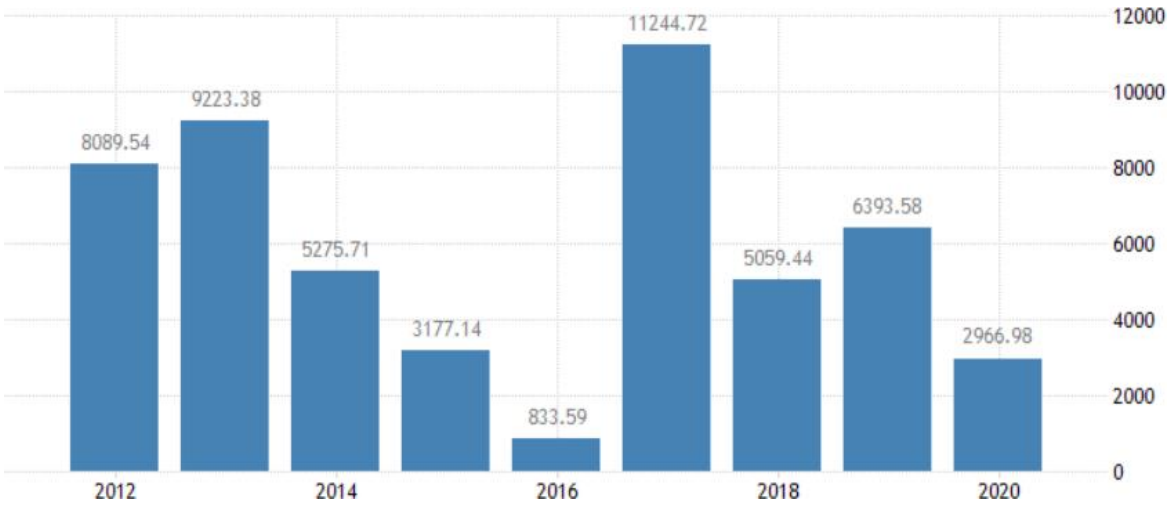


Figure 9: Export of Steel (in million tonnes

In the above graph, the trend line shows a steady decline in the export of steel goods but has a maximum peak during the year 2017.

Although India began exporting steel in 1964, it was unregulated and primarily dependent on domestic surpluses. Steel exports, on the other hand, increased dramatically in the years following economic liberalisation. The rate of increase of steel exports from India has slowed as a result of the large growth of local steel demand, ensuring that domestic needs are met. India is now a net exporter of total finished steel.

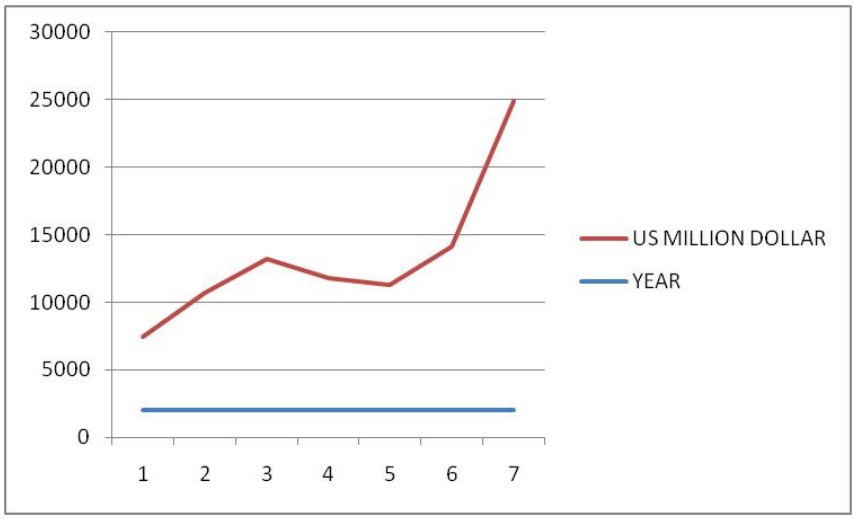
4.6 Export Value of steel from India

YEAR	US MILLION DOLLAR
2016	5423
2017	8659
2018	11206
2019	9731
2020	9261
2021	12124
2022	22895

TABLE 16 -EXPORT VALUE OF STEEL FROM INDIA

Exports of Iron & Steel in India in 2016 was 5423 US Million Dollar which went upto 22895 US Million Dollar in 2022 which is 4 times in last 6 year but it declined during from 11206 to 9731 and from 9731 to 9261 during COVID time.

Steel demand has increased in the country. But, at the same time, steel is facing greater competition from alternative materials. Steel is being replaced by alternative materials such ascomposite materials in numerous areas such as automobiles, white goods, trains, and space due to its high cost and heaviness. Composite materials are lighter, stronger, and cheaper thansteel.



4.7 IMPORT INTRODUCTION

Steel is imported into India from more than 160 nations and territories. The main source nations for India's steel imports by volume differ depending on the kind of steel.

India needs to increase its share in important import markets; there are some areas where India currently has export competitiveness, but its imports are still low. These markets have the potential to drive India's iron and steel exports, and they must be targeted appropriately.

4.8 Category-Wise Import Of Iron And Steel

('000 TONNES)

Sl.No.	CATEGORY	2017	2018	2019	2020	2021
I	Semi-finished Steel(Non-Alloy)					
	Semis	410	390	164	134	31
	Re-rollable Scrap	411	429	287	147	123
	TOTAL	821	819	451	281	154
II	Finished Steel(Non-Alloy)					
	Non-Flat					
	Bars & Rods	312	286	317	134	117
	Structurals	50	44	36	35	17
	Rly.Materials	26	42	68	54	80
	TOTAL Non-Flat	388	372	421	223	214
	Flat					
	Plates	660	478	344	371	233
	HR Sheets	16	12	6	1	0
	HR Coils/Skelp/Strips	1,875	1,750	1,913	804	855
	CR Coils/Sheets	705	478	465	201	295
	GP/GC Sheets	1,058	1,232	949	726	798
	Elec.Sheets	540	654	621	421	513
	TMBP	1	8	0	0	0

	Tin Plates	207	181	197	123	103
	Tin Free Steel	58	74	79	50	23
	Pipes	377	315	354	194	156
	TOTAL Flat	5,497	5,182	4,928	2,891	2,976
	TOTAL Fin. Steel (Non-Alloy)	5,885	5,554	5,349	3,114	3,190
	TOTAL STEEL (Non-Alloy)	6,706	6,373	5,800	3,395	3,344
	Alloy/Stainless Steel					
	Non-Flat	445	554	427	287	295
	Flat	1,499	1,190	1,664	1,062	1,516
	Semi-finished	56	176	61	20	49
	TOTAL Fin. STEEL (Alloy/Stainless)	1,944	1,744	2,091	1,349	1,811
	TOTAL STEEL (Alloy/Stainless)	2,000	1,920	2,152	1,369	1,860
	TOTAL Fin. STEEL (Alloy+Non-Alloy)	7,829	7,298	7,440	4,463	5,001
	TOTAL Steel (Non-Alloy + Alloy)	8,706	8,293	7,952	4,764	5,204
III	Other Steel Items					
	Fittings	245	193	163	119	136
	Misc. Steel Items	1,504	1,377	369	214	346
	Steel Scrap	4,894	5,974	6,763	5,649	5,015
IV	Iron					
	Pig Iron	16	67	13	7	15
	Sponge Iron	58	58	44	44	47
V	Ferro-Alloys	554	576	642	545	707
	GRAND TOTAL	15,977	16,538	15,946	11,342	11,470

Table 17: Category – wise Import of Iron and Steel

Steel is imported in various forms as a semi-finished products and finished products. The imports of semi-finished goods has decreased by around 45 % from 2017 to the present scenario. However, the trend in the non-flat steel is not encouraging as it has steady decline upto 45%. The import pattern of both alloy and non-alloy steel has a linear decline since 2017.

4.9 India's Top Import Partners Of Steel

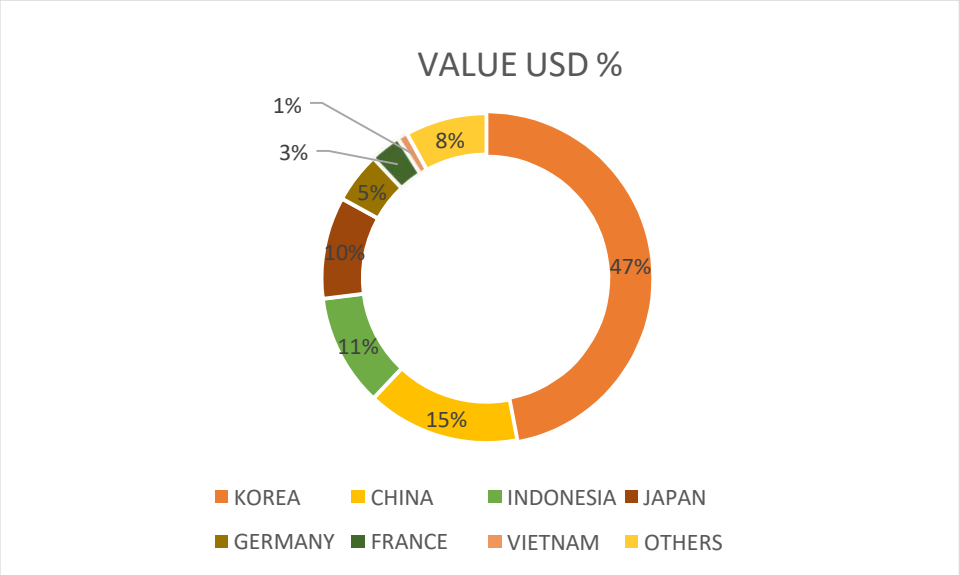


Figure 12: Category – wise Import of Iron and Steel

4.10 Year Wise Import Of Steel

• For the last ten years, the following data on total finished steel imports (alloy/stainless + non-alloy) is provided:

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			

Table 18: Import of Iron and Steel

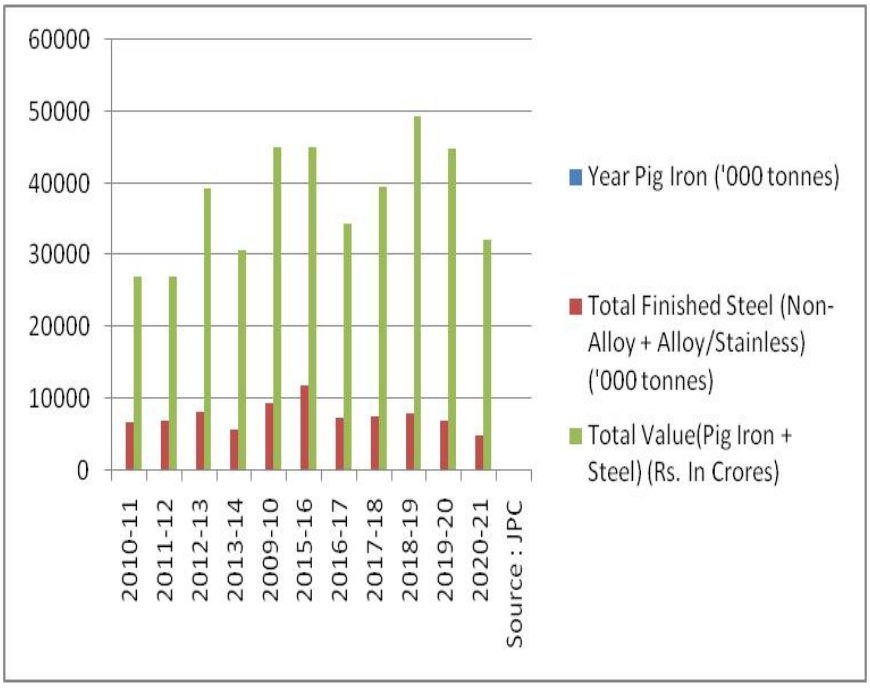


FIG 13- Graph of Import of Steel

The below table shows the steel import of pig iron and finished steel. From 2010 to 2014 there was a steady rise in the import of pig iron and there was a decline from 2014-2016. Import for Pig Iron was the highest during from 2018-19 and there was a subsequent decline till 2021.
As for the import of finished goods there was a clear growth from 2010-2013 followed by a dip the year 2013-2014. There is an exponential raise during 2009-2016 followed by a steep decline uptil 2021.

In 2021, India's imports of iron and steel articles grew to 1642.91 USD million, up from 698.20 USD million in 2020.

4.11 VALUE OF IRON AND STEEL IMPORT

FIG 14 VALUE OF IRON AND STEEL

The financial statues for the financial year of 2011 till 2018 is an up and down curve with rise and decline in a few places. Financial year 2019 marked the highest revenue generation to the nation. Due to covid-19, there was a decline in the financial years 2020 and 2021.

CHAPTER 5

SUMMARY AND CONCLUSIONS

5.1 CONCLUSION

Today as we know steel exports are important to the economies of all nations. China, followed by India, is the world's largest manufacturer of steel. The "WORLD STEEL ASSOCIATION," which was established on October 19, 1967, oversees the steel industry. With 170 steel businesses, national and regional steel industry groups, and steel research institutes, it is one of the largest and most active industrial associations in the world. The World Steel Association has 85% of the world's steel firms as members. The nation's first iron and steel plant, the Tata Iron and Steel Company, in Jamshedpur One of the most crucial elements in the development of the nation's infrastructure is steel. India is expected to expand its steel exports by 4-5 percent.

Indian steel companies have invested significantly in modernising and enlarging existing units as well as operating environmentally friendly operations in order to establish a world-class, cost-effective, environmentally friendly, and socially responsible business despite the threat of steel imports. The Indian steel industry is concentrated on boosting steel exports to other industrialised nations in order to increase profitability in addition to competitiveness. As a result, the government released the National Steel Policy 2017, which provided a wide road map for fostering long-term economic growth in the demand and supply sectors of the Indian steel industry by 2030–2031.Despite all the problems the globe was experiencing, such as Covid-19 and the Russian-Ukrainian War, India's steel output remained strong, and its import and export numbers were also on the rise.

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