“Sustainable Construction Material Market Entry Framework For Ultratech”

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Submitted to:
Masai School.

Contents

GLOSSARY: **MNT** – Million Metric Tons, **LMT** – Lakh Metric Tons, **MTPA** – Million Tons Per Annum, **CY** – Current Year period, **LY** corresponding period Last Year, **FY** – Financial Year (April-March)

Aditya Birla Group - Overview

Aditya Birla Group - Overview

ADITYA BIRLA GROUP

PREMIUM GLOBAL CONGLOMERATE

USD ~45 billion Corporation

In the League of Fortune 500

Operating in 6 continents and 36 countries

with over 50% Group revenues from overseas

Anchored by over 140,000 employees from 100 nationalities

Ranked No. 1 corporate in the Nielsen's Corporate Image Monitor FY15

AON best employer in India for 2018

ADITYA BIRLA – UltraTech

- # 1 cement player in India
- # 3 largest cement player globally (ex - China)

ADITYA BIRLA – GRASIM

- # 2 in VSF globally
- # 1 in chlor-alkali in India

ADITYA BIRLA – HINDALCO

- A global metal powerhouse
- # 1 in aluminum rolling globally

Vi – Together for Tomorrow

- Leading telecom player in India

ADITYA BIRLA – BIRLA CARBON

- # 2 in carbon black globally

ADITYA BIRLA – FASHION & RETAIL

- Top fashion and lifestyle player in India
- Iconic brands across the fashion and retail segment

ADITYA BIRLA – SWISS SINGAPORE

- A trans-national bulk commodity trading solutions provider globally

ADITYA BIRLA CAPITAL

- Leading NBFC in India
- AUM ~ USD44bn

ADITYA BIRLA – EMIL

- # 1 producer of noble ferro alloys in India
- Amongst largest iron ore non- captive private mining player

VALUES - INTEGRITY • COMMITMENT • PASSION • SEAMLESSNESS • SPEED

Building the Sustainable Future

Innovation

Sustainability

Customer Centricity

Team Empowerment

Enhanced Stakeholder Value

- Profitable growth
- Market leader
- Strong financials
- Premium brand
- Socially responsible

Sustainable Value Creation

Diversified product portfolio catering a full suite of building solutions

Conventional: Positioning cement at the core of all construction

Building solutions

Contemporary: Providing an umbrella of related construction products and services

Grey Cement

Current capacity 120.0 MTPA

1st Cement plant set up in 1983

Ordinary Portland Cement, Portland blast-furnace slag Cement, Portland Pozzolana Cement, Portland Composite Cement

White Cement

Leading player in India

Birla White WALLCARE – White Cement Based Putty
Birla White levelplast – Water resistant wall leveller
Birla White Textura – White Cement Based Textured Wall Finish
Birla White GRC

White Cement: 1988
White Putty : 2001

Portfolio of white cement, white putty, VAPS Textura, Levelplast, pre-cote and fragrance putty

Ready mix Concrete

150+ RMC plants in 41cities

UltraTech AQUASEAL | UltraTech ZIP | UltraTech THERMOCON | UltraTech RAPID
UltraTech PERVIOUS | UltraTech LITECON | UltraTech IFLOORS | UltraTech FREEFLOW
UltraTech FIRESAFE | UltraTech DURAPLUS | UltraTech DECOR

1998

Tailor made concrete solutions with 35 specialty concretes based on application

Building Solutions

2,759 outlets in 21 States

2007

UltraTech Building Solutions

One-stop building solutions for the retail customer

Building Products

Range of 15 products

2012

UltraTech BUILDING PRODUCTS

Portfolio of building solution products such as plasters and mortars, tile adhesive, waterproofing products etc.

Investment Proposal for “Recycle Steel”

Why Recycle Steel?

Environmental Benefits

- Steel recycling efforts save 75 percent of the overall energy used in production from raw materials.
- It saves one and a half tons of iron ore, half a ton of coal, and 40 percent of the water normally used in the production process
- **CO2 emissions are reduced by an astounding 58 percent**.
- the more steel is recycled, the less space it takes up in landfills.
- this means a cleaner environment and fewer health concerns from contaminated soil or groundwater.

Economical Benefits

- manufacturers drastically reduce the price of production costs
- Steel allows for the use of completely reused materials instead of going through the costly procedure of extracting raw ore from the ground
- The recycling process in the steel industry also drives job creation—producing over 531,000 jobs in scrap recycling and resulting in over $110 billion in economic activity
- Steel is **100 percent recyclable**, which means it can be recycled into the same material of the same quality again and again

Financial Benefits

- 1 ton of steel made from nearby 8-ton coal, 4 tons of iron ores, and 1 ton of limestone instead of that we can make steel by using ferrous scrap.
- Recycling metal is **vastly cheaper than mining ore** and smelting it into useable metals as the mining and smelting have already been done the metal is simply melted down and reshaped. Due to the process being much shorter, less money is used.

The Steel Recycling Process

- While it is true that all forms of steel are recyclable, it's important to note that the recycling process differs from many other products. This is due to the inherent value of steel—instead of being sent to a landfill or traditional recycling center, steel products will be sold to a scrap yard for compensation.

- **There are three main sources of steel scrap** that are sold to scrap yards: Home Scrap, Prompt or Industrial Scrap, and Obsolete Scrap.

1.Home Scrap: Home scrap is steel waste that occurs in-house in steel mills through the production of steel. This includes trimmings and reject scraps of steel. This does not typically have to be collected or purchased, as it is usually redirected back into the furnace.

Prompt (Industrial) Scrap: Prompt scrap is a result of product manufacturing in areas such as automotive and appliances. Excess steel from these warehouses and factories are auctioned and sold to scrap buyers, usually at a premium

Obsolete Scrap: Obsolete scrap covers the rest of steel waste, stemming from areas such as individual household appliances, old cars that are sent to a junkyard, office, and household waste. This category can also extend to include old junked buildings or structures that are sent to a junkyard and recovered for their steel elements

Collecting Scrap

- After being collected by scrappers in person, at designated drop-offs, or at buy-back centers, steel scrap is then sorted and sent out to mills or foundries.

Melting

- The excess steel scrap is then **melted down by a furnace that runs at a temperature of nearly 3,000 degrees**, and purified to rid the scrap of any contaminants. Then, the melted steel is solidified into sheets and prepped for shipping.

Transport

- The newly recycled metal is then ready to be sent out to various factories for use as raw material, and the cycle begins again.

Market share [KPI]

INDIA

Production of steel In

EY 22 **120.007** Million Tone

25.00%

Steel produced from scrape

25.10%

Export rose In FY21

World

Production of steel In

EY 22 **1951.91** Million Tone

54.46%

MT Steel produced from scrape In one year

22.4%

Import in India in FY20

https://www.financialexpress.com/industry/recycling-rate-of-metals-in-india-way-below-the-global-benchmark/2451562/

Indian Steel Sector

Indian Steel Industry - Overview

1907-18

- Production of steel started in India (TISCO was setup in 1907)
- IISC was set up in 1918 to compete with TISCO.

1923-48

- Mysore Iron and Steel Company was set up in 1923.
- According to the new Industrial Policy Statement (1948), new ventures were only undertaken by the central Government.

1954-64

- Hindustan Steel Ltd and Bokaro Steel Ltd. were setup in 1954 and 1964, respectively.
- In the early 1990s, the public sector dominated steel production.
- Private players were in downstream production mainly producing finished steel using crude steel products.

1973-92

- SAIL was created in 1973 as a holding company to oversee most of India's iron and steel production.
- In 1989, SAIL acquired Vivesvata Iron and Steel Ltd.
- In 1993, the Government set plans in motion to partially privatise SAIL.

1993-2014

- Foreign players began entering the Indian steel market
- Imposition of export duty on iron ore, to focus more on catering to growing domestic demand
- Decontrol of Domestic price control

2015-22

- In 2019, India ranked as the second-largest crude steel producer in the world.
- Between April 2021-March 2022 finished steel stood at 70.007 MT

In April 2022, the production of crude steel in India stood at 10.144 MT.

Structure of the steel sector

Opportunity

Automotive

- The automotive industry is forecast to reach US$ 260-300 billion by 2026.
- The industry accounts for around 10% of the demand for steel in India.
- With increasing capacity addition in the automotive industry, demand for steel from the sector is expected to be robust.

Capital goods

- The capital goods sector accounts for 11% of the total steel consumption and is expected to increase 14-15% by 2025-26. It has the potential to increase in tonnage and market share.
- Corporate India's capex is expected to grow and generate greater demand for steel.

Infrastructure

- The infrastructure sector accounts for 9% of steel consumption and is expected to increase to 11% by 2025-26.
- Due to rising investment in infrastructure the demand for steel products would increase in the years ahead.
- 70% of the country's infrastructure, estimated at Rs. 6 lakh crore (US$ 89.50 billion), is yet to come up. Thus, a significant growth potential for steel sector is present.*
- For various infrastructure sectors, including real estate and power, the Ministry of Finance planning to set up a stress fund.

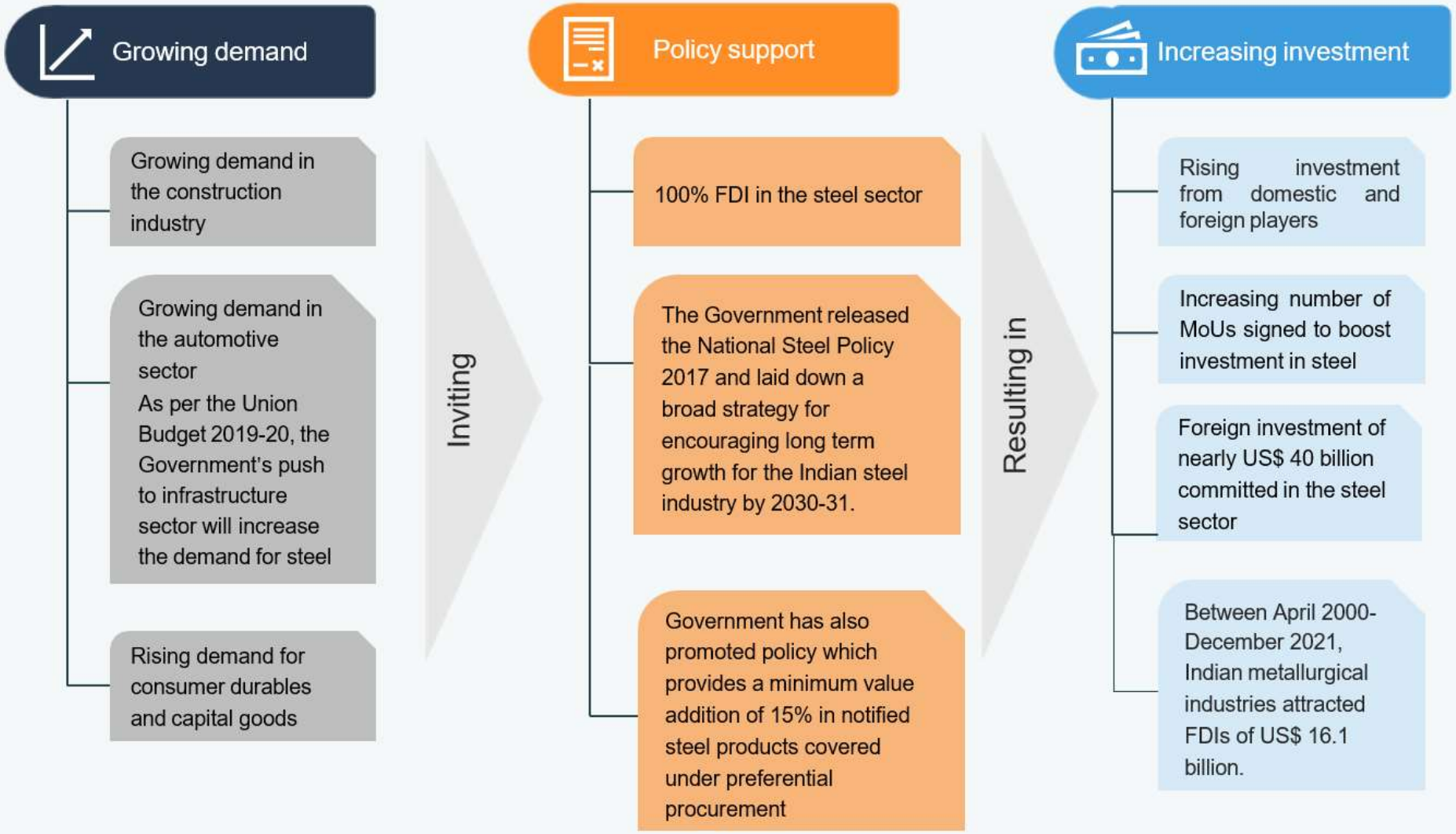
Airports

- More and more modern and private airports are expected to be set up.
- In FY19, passenger traffic at Indian airports stood at 344.69 million.
- The number of operational airports stood at 103 as on 31 March 2019.
- Development of tier II city airports will sustain consumption growth.
- Estimated steel consumption in constructing airports is likely to grow more than 20% over the next few years.

Railways

- The Dedicated Rail Freight Corridor (DRFC) network expansion would be enhanced in the future.
- Introduction of high-speed bullet trains and metro trains will increase steel usage.
- Gauge conversion, setting up of new lines and electrification would drive demand for steel.
- The Indian Railways is planning to procure over 11 lakh tons of steel from the Steel Authority of India Limited (SAIL) for track renewal and laying new lines across the country.

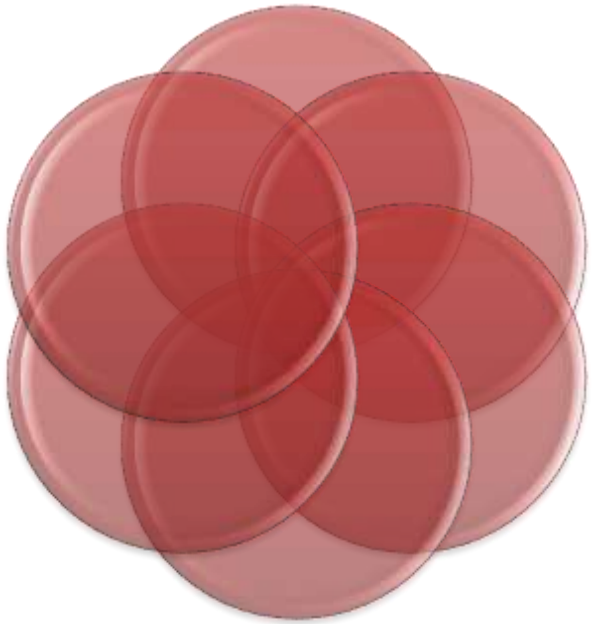
Demand & Policy Support



PESTLE Analysis

Political

Legal



Economic

Ecological

Socio-
culture

Environment

PESTLE Analysis

1. Political

- The political analysis includes the factors which can influence the business. It is included the political factor which includes the policy offered by the government to the specific sector.
- Here for this sector government introduces the National Steel Policy. The main aim of the introduction of this policy is to fill the gap between the demand and supply of steel.
- To maximize production also main activity is designed under this policy.
- To increase production by up to a million tons is also the main objective of the policy.
- Under this policy, the government is encouraged to use the full opportunities available in the PUBLIC AND PRIVATE PARTNERSHIP(PPP). With the growing industry, the government is increased the sales tax from the 15%to 20% whereas 75% FDI (foreign direct investment) is allowed in the industry this scheme also provides various concessions in the customs duties.

PESTLE Analysis

2. Economic

- The STEEL industry is a very booming industry in past decades. Opening up with the various economies foreign direct investment is the happened in this sector the various foreign players are interested to invest in the country.
- Under the various economic schemes, there is permission in an advance licensing scheme that allows the duty-free imports of raw
- materials for exports. But, with the boom in the industry GDP is rising at a very slow rate.
- The steel industry is also facing the problem of the subprime crisis occurring in the united states for 15 months.
- Because of the subprime crisis, there are ill effects occurred in the automobile industry, infrastructure, and other businesses which are related to the steel industry. There is a huge gap between the demand and the supply of steel in society.

PESTLE Analysis

3. Sociological

- The socio-culture is one of the important aspects in the analysis of the industry it describes the impact of the particular industry on society.
- Likewise, the steel industry also gives the encouragement to permanent employment to the people but on the other hand, it divides the area into the rural and urban sectors because the industry is only in a particular area only which leads to the particular development of that area only and not overall the development.
- Because of the working conditions, the people which are employed in the steel industry faced many health problems which are incurable in nature and many industries are not paying the attention to the health of the employees.
- Any kind of allowance is not given to the employees. The steel industry is also responsible for the development of the rural sector which leads to the rise in the standard of living of the people.

PESTLE Analysis

4. Technological

- Traditional technologies are being used for many years in the industry. There is no innovation in the use of the technique in the production process.
- With the help of this technology, the e-market is the biggest market for the purchasing and selling of the l in the world.
- Tata steel is developing the same technique by which the arrangement is given to the trading of steel.
- The Indian steel industry, having participation from both the public sector and private sector enterprises, is one of the fastest growing markets for steel and is also increasingly looking towards exports as driving the growth of the industry.
- Tata and sail introduce the online trading of steel.
- Only the electric furnace is being used now nowadays in the production process but because of the fluctuations in the energy, there is waste in the raw material.
- The basic technologies in the production process are basic arc, induction furnace, and electric furnace which are outdated in nature. Sail one of the leading steel industry India is planning to set up a plan with PASCO for using the latest technology named FINEX.

PESTLE Analysis

5. Ecological

- Very few companies are dealing in recycled steel and in small scale
- All leading industries are following the environmental acts which are declared by the governments, though it is creating very a bad impact on the environment.
- Many industries are using pollution control equipment and energy-saving equipment but that is not sufficient in the nature
- Tata is developing the Ultra-Low Carbon steel making where there will be reduction in the environmental loss.

6. Legal

- The Government has reduced the basic customs duty on the plants and equipment required for the initial setup or expansion of iron ore pellets plants and iron ore beneficiation plants from 7.5/5% to 2.5%.
- 100% FDI through the automatic route is allowed in the Indian steel sector
- Going forward, the Make in India initiative and policy decisions taken under it are expected to augment the country's steel production
- The Government hiked the export duty on iron ore to 50% ad valorem on all varieties of iron ore (except pellets).
- In October 2020, the Directorate General of Foreign Trade announced that steel manufacturers in the country can avail of duty drawback benefits
- on steel supplied through their service centers, distributors, dealers, and stockyards
- India is a net exporter of finished steel and has the potential to become a frontrunner in certain grades of steel. PLI scheme has been approved for specialty steel with a financial outlay of Rs. 6,322 crores (US$ 858.50 million) over a five-year period.
- In October 2021, India and Russia signed an MoU to carry out R&D in the steel sector and produce coking coal (used in steel making).

Key players in the industry

TATA STEEL	Tata Steel Ltd.	19.4 MT/PA	Finished steel (non-alloy steel)
सेल SAIL	SAIL	21 MT/PA	Finished steel (non-alloy steel)
JSW Steel	JSW Steel Ltd.	18 MT/PA	Hot-rolled coils, strips and sheets
JINDAL STEEL & POWER	Jindal Steel and Power Ltd.	8.6 MT/PA	Iron and steel
WELSPUN FLOORING	Welspun-Gujarat Stahl Rohren Ltd.	7.63 MT/PA	Tubes and pipes
VISASTEEL	Visa Steel Ltd.	1.5 MT/PA	Ferro Chrome, coke and special steel
ESSAR STEEL	Essar Steel	10 MT/ PA	Hot Rolled, Cold Rolled, Galvanized, Colour-Coated products, extra wide plates and pipes
VIZAG	RINL Powergrid TLT Pvt Ltd.	7.3 MT/ PA	Forged Rounds, Rebars, Rounds, Wire Rod coil, rounds, billets

Operational Feasibility

- **Mode of entry**
  - As the Aditya Birla group is vast spearheaded all over the world they already have all the required infrastructure, operation and financial feasibility
  - Entering in the steel industry will add one more feather to our hat.

Financial Feasibility – Profit and Payback

(Guessestimate)

Revenue: (per/ton)

=Market Size x Market share x sale price

=130$_{MnT}$ x 7%$_{out\_of\_60\%}$ x 65000$_{Rs\ current_steel_price/ton}$

= 59,15,00,00,00,000 /-

Cost: (per/ton)

=Scrape + Recycling cost (machine, labour, transport, marketing, others)

= 35000 $_{P/T}$ + 16% $_{RS}$

= 40600+18%$_{GST}$

= 47908

Initial Investment for this project

(AS per market source)

7000 Cr

To

1,00,000 cr

Profit:

=Revenue x profit percentage

=59,15,00,00,00,000 x 15%

= 8,87,25,00,00,000 /-

= ~ 9.00 Thousand cr

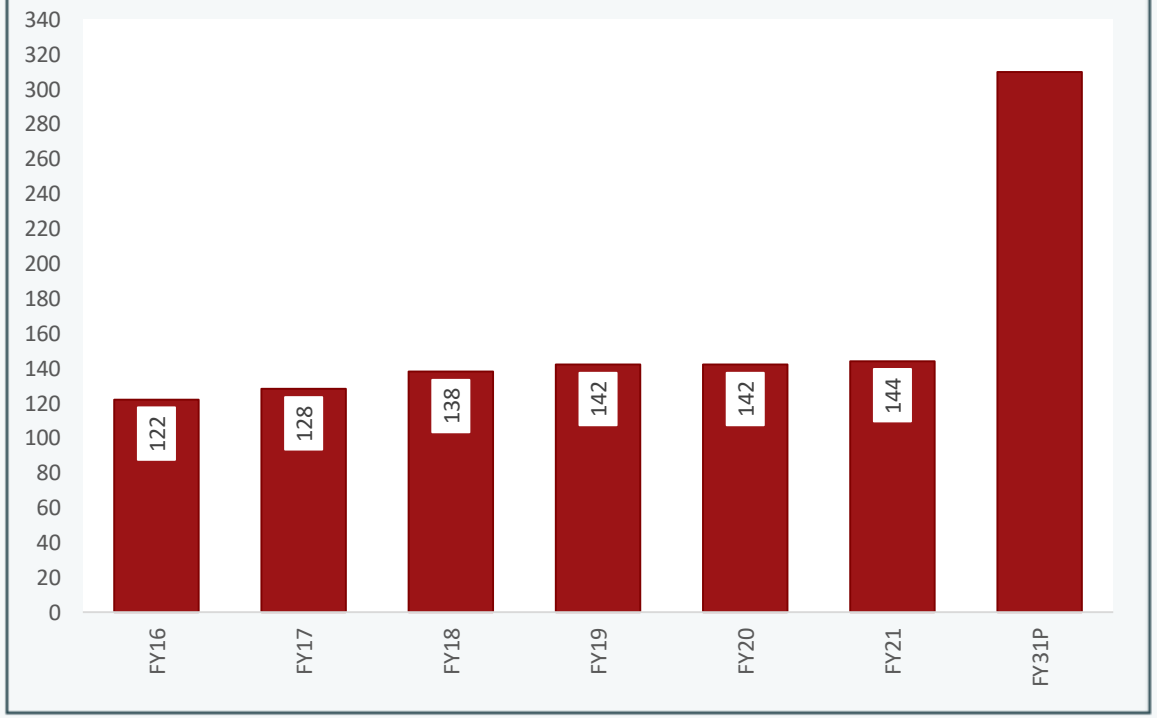
Payback:

6 to 8 Years

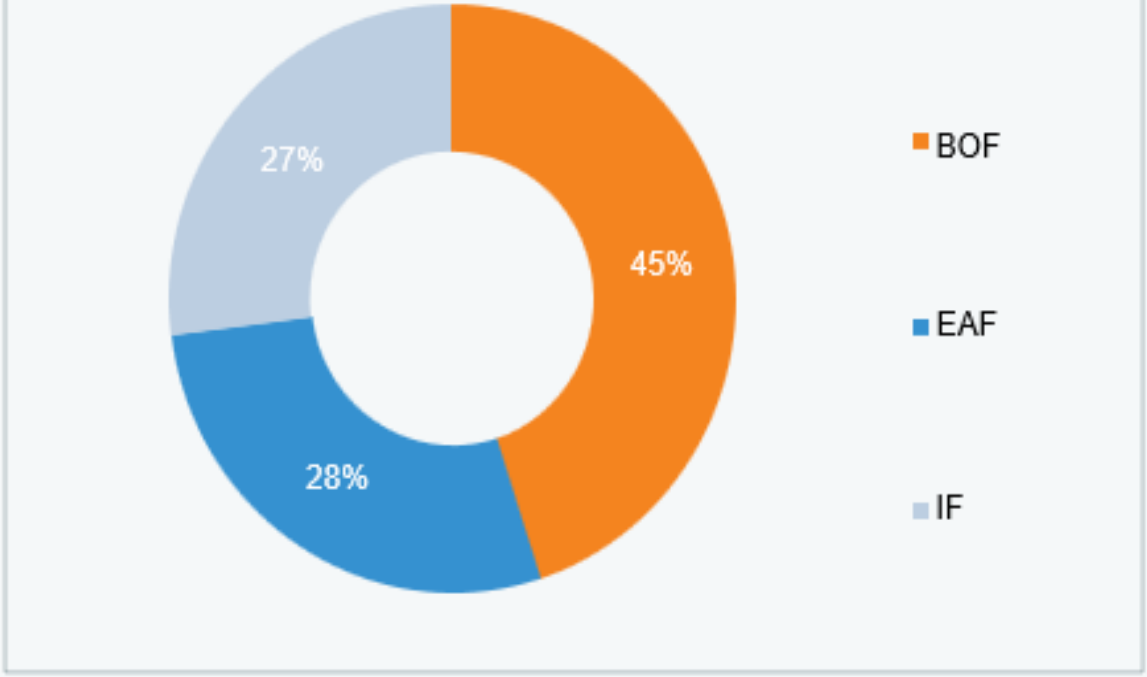
https://www.business-standard.com/article/companies/steel-makers-margins-to-nearly-double-in-h2-to-25-from-h1-levels-report-122090801110_1.html

Demand Growth Drivers

Crude Steel Production Capacity (in million tonnes)

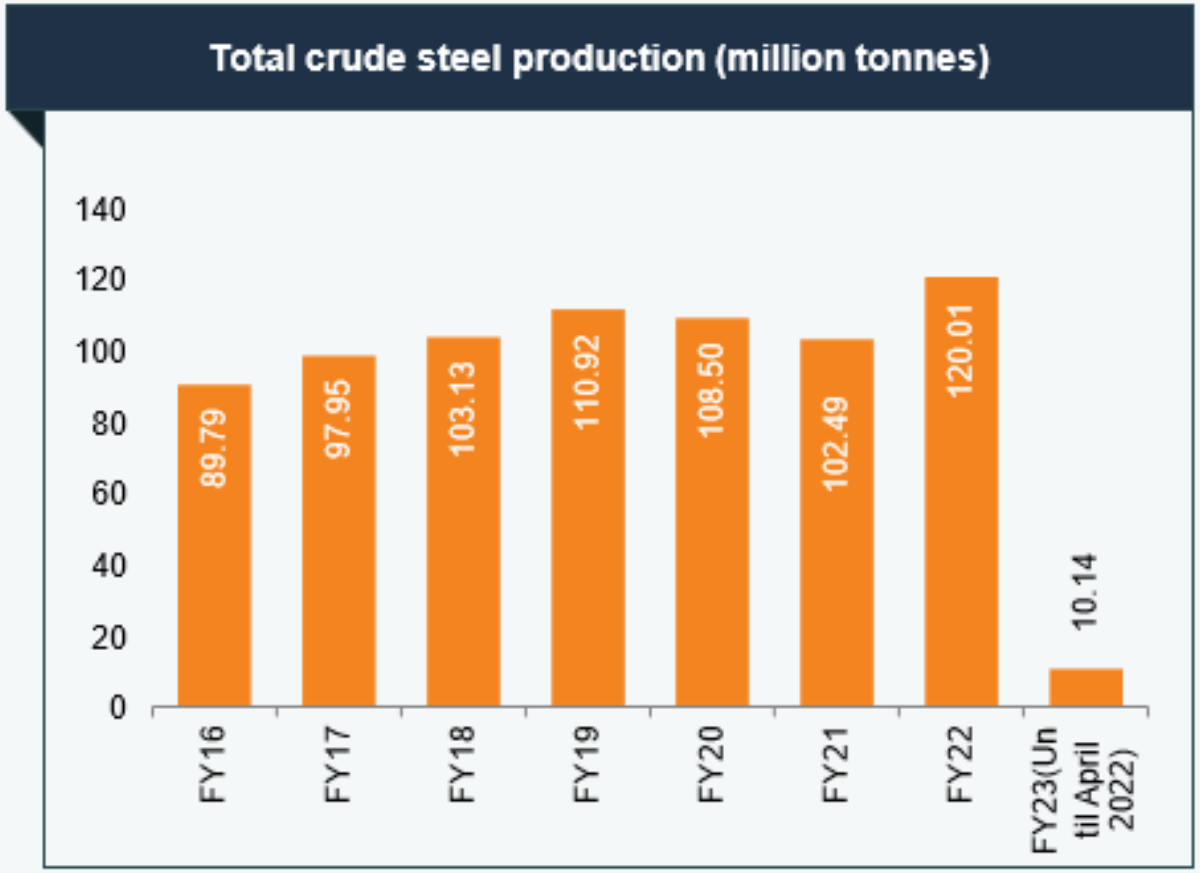


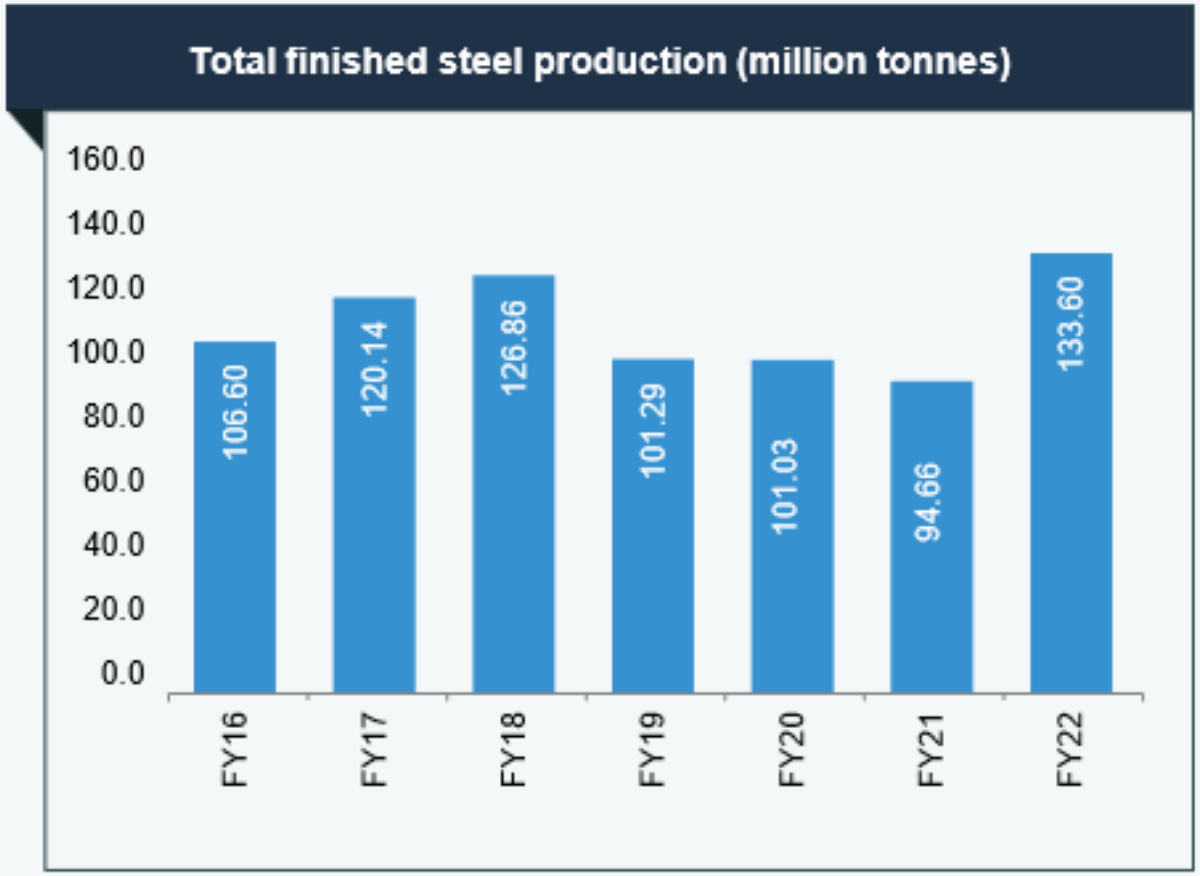
Crude Steel Production Capacity in FY20 – By Route (in %)



- India's steel production capacity has expanded rapidly over the past few years, growing at a CAGR of 3.93% from 122 MT in FY16 to 143.9 MT in FY21. The National Steel Policy 2017 has envisaged achieving up to 300 MT of production capacity by 2030-31.
- By FY22, India's total steel capacity is likely to increase to 150 MT annually.
- BF-BOF route is expected to contribute 65% of the capacity, while the remaining 35% is expected to come from EAF & IF routes.
- Expansion of production capacity to 300 MT will translate into an additional investment of Rs. 10 lakh crore (US$ 156.08 billion) by 2030-31.
- Steel companies are looking to restart expansion projects on the back of the surging steel process with capacity addition of 29 MT.

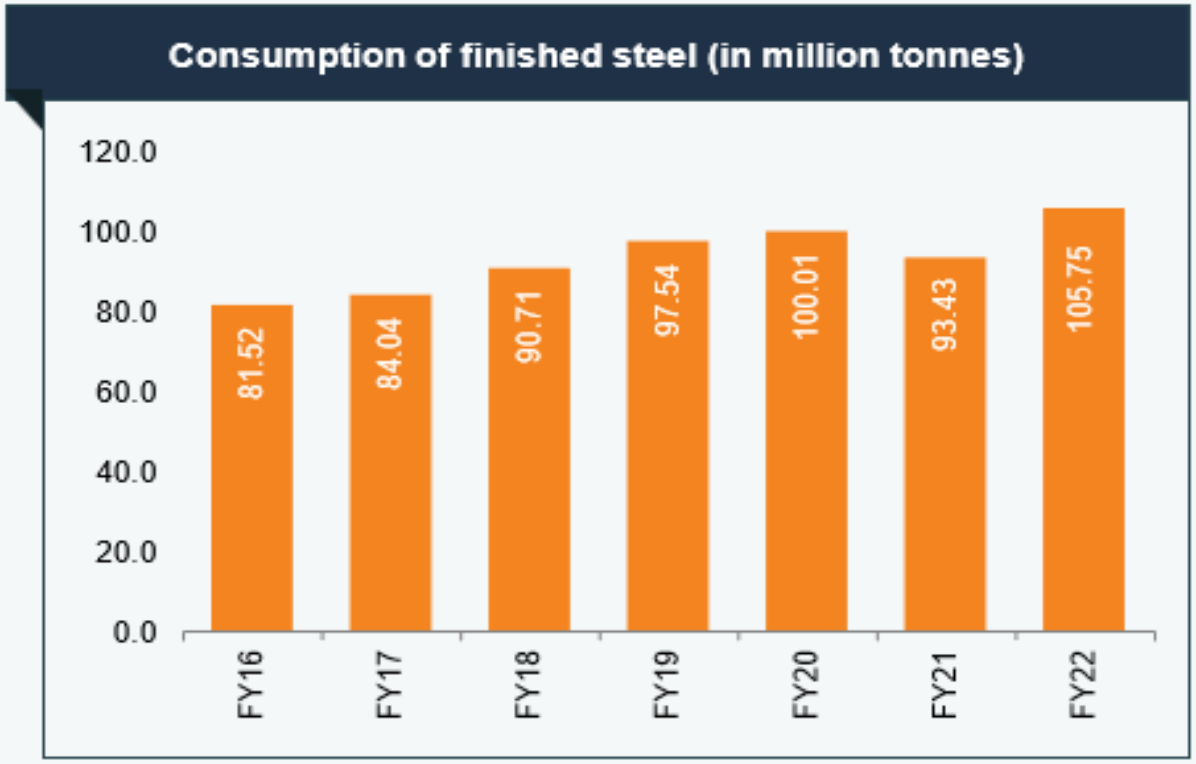
Steel production in India has been growing at a fast pace

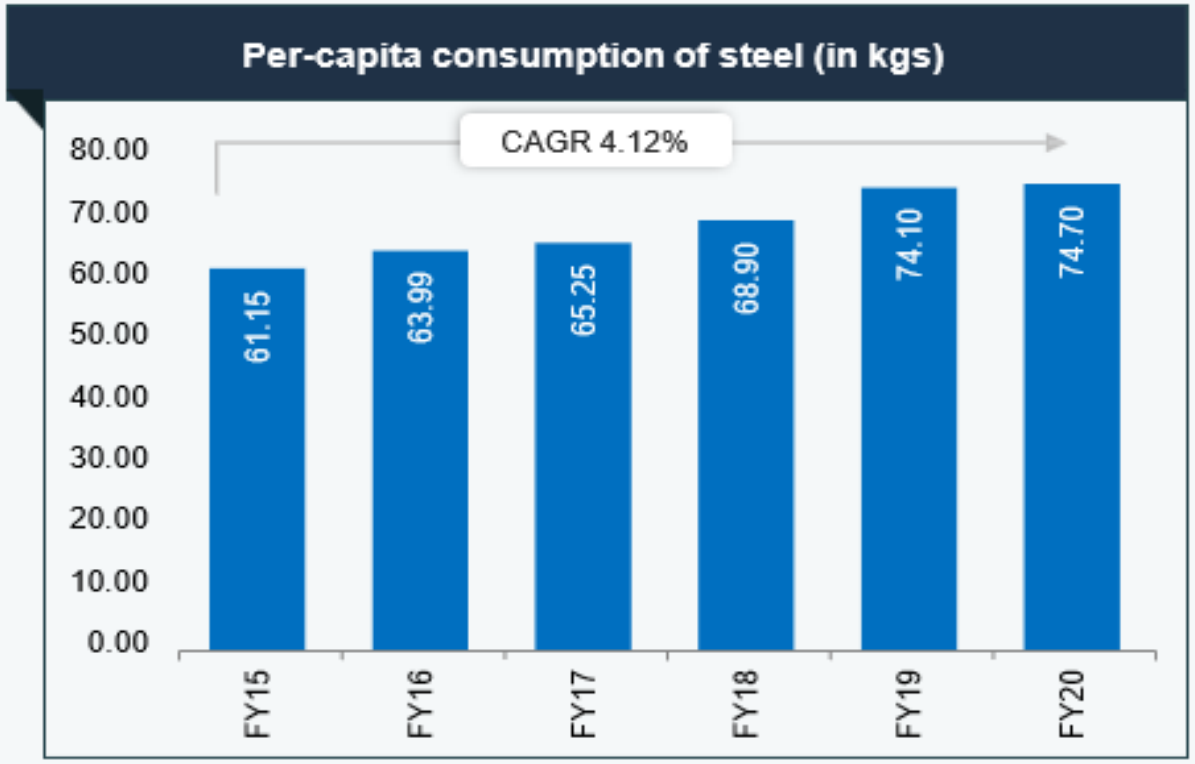




- In FY22, production of finished steel stood at 133.596 MT.
- In FY22, production of crude steel and finished steel stood a 133.596 MT and 120.01 MT, respectively.
- To support MSMEs, the government has reduced customs duty on stainless steel to 7.5%.
- The Union Budget 2021-22 has a 34.5% YoY increase in allocation for Capex at 5.54 lakh crore (US$ 74.60 billion). The budget's focus is on creating infrastructure and manufacturing to propel the economy. In addition, enhanced outlays for key sectors such as defence services, railways, and roads, transport, and highways would provide impetus to steel consumption.

Demand has outpaced supply over the last five years



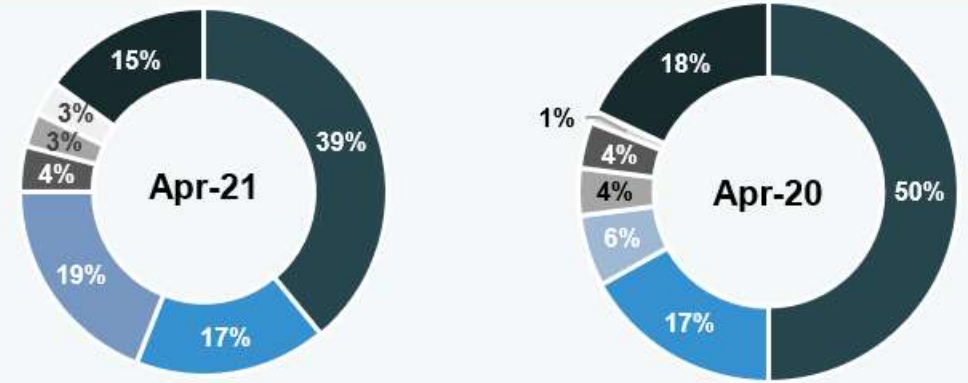


- Between April 2021-March 2022, the consumption of finished steel stood at 105.751 MT.
- In January 2022, India's finished steel consumption stood at 9.65 MT. The National Steel Policy aims to increase per capita steel consumption to 160 kgs by 2030-31.
- It is expected that consumption per capita would increase, supported by rapid growth in the industrial sector and rising infra expenditure projects in railways, roads and highways, etc.
- The government has a fixed objective of increasing rural consumption of steel from the current 19.6 kg/per capita to 38 kg/per capita by 2030-31.

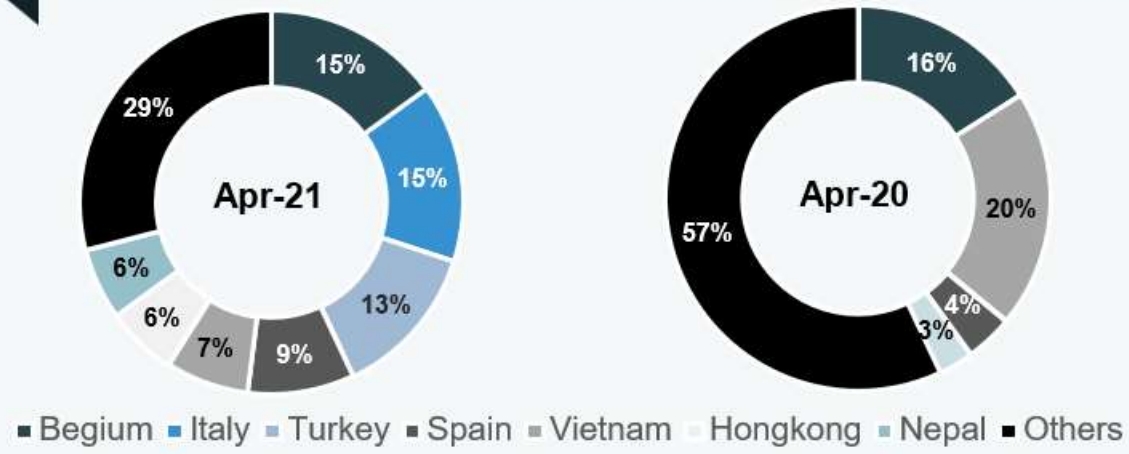
Trends in import and export of steel

- In FY22, exports and imports of finished steel stood at 13.49 MT and 4.67 MT, respectively. In FY21, India exported 9.49 MT of finished steel.

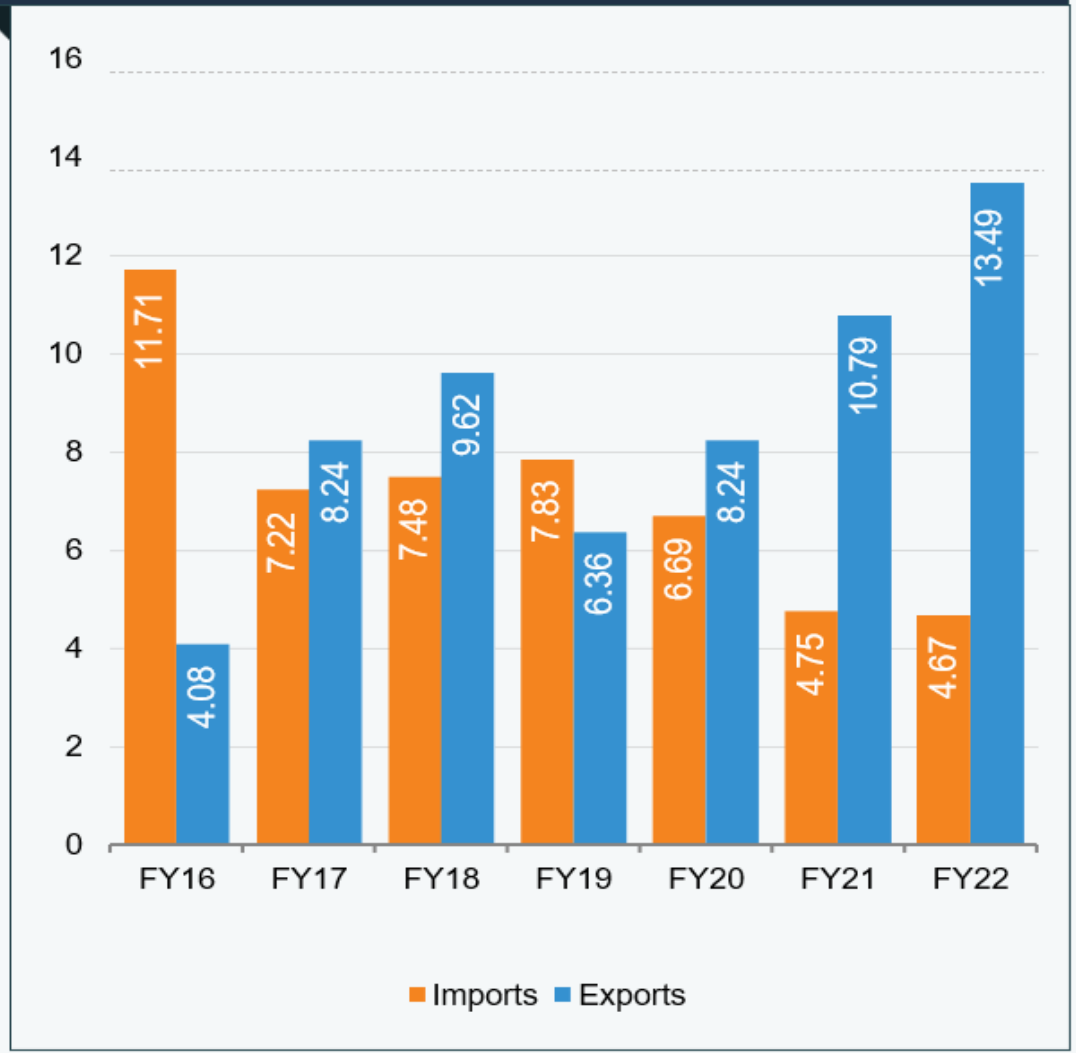
Import destinations of finished steel from India: Apr-21 vs. Apr-20



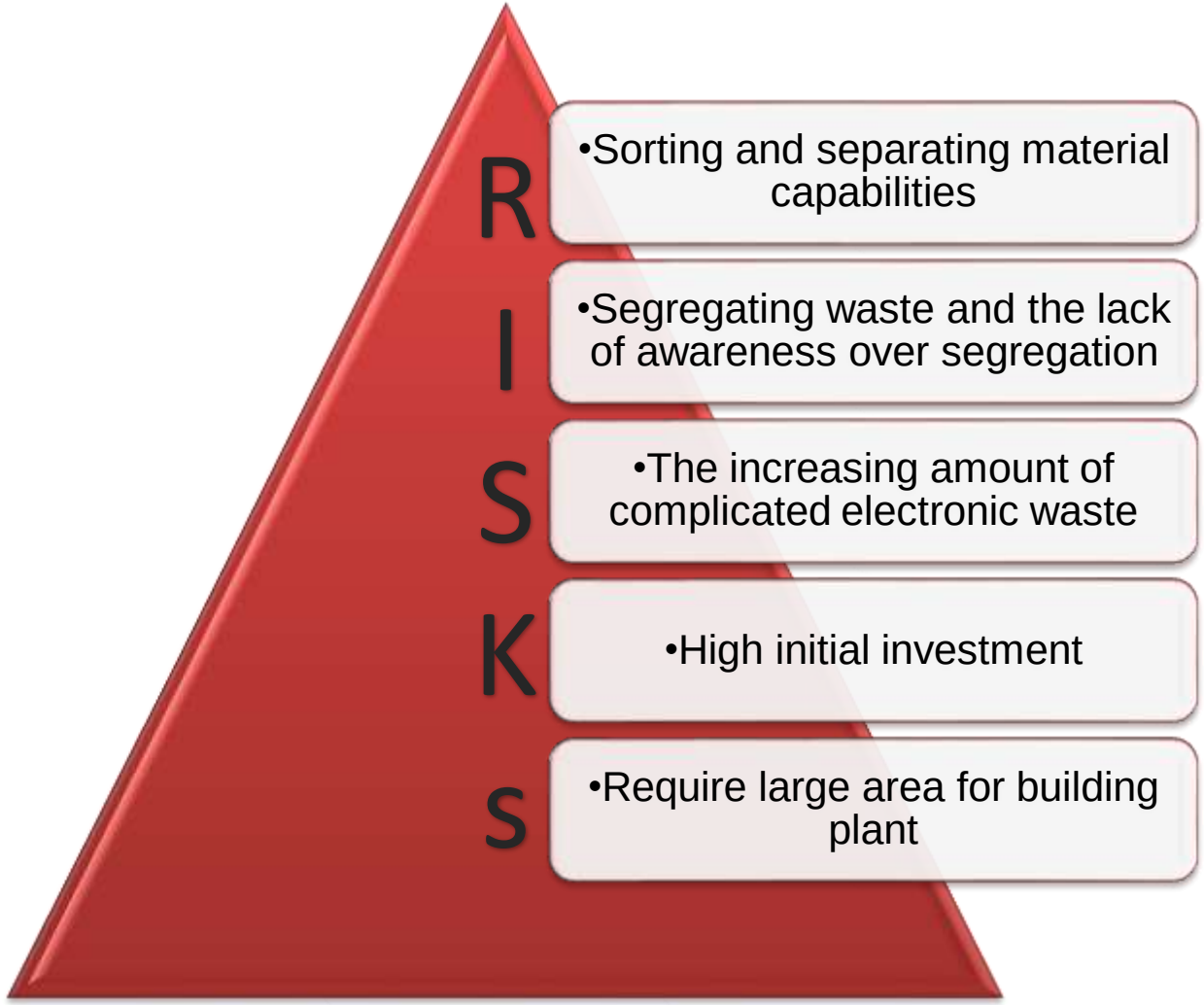
Finished steel export source countries to India: Apr-21 vs. Apr-20



Finished steel export and import (in million tonnes)



Challenges / Risks



Synthesis

- By our analysis, currently entering Recycle steel industry is the most crucial period. India is only producing 25% of its overall steel by recycling. Currently, though it is less when down the line after 7-8 yr. the price of other coal and other raw material goes hike. that time steel and other metal cost price would increase and at that time we would not have the option so, instead of waiting for that time, we should go for producing steel from scrap.

- cost of making recycled steel is less compared to traditionally making steel so, we can afford to keep the product price minimal as compared to others in our initial time to capture the market.

- By maintaining our standard as similar to our competitor's product then we will capture the market in less period.


Thank
You!