Annual Report 2021

HEG LIMITED

Contents

The great aspect about tomorrow is that you always look forward to it.

For HEG, FY21 was tough.

Declining demand. Dropping realisation. High-cost inventory. The pandemic and lockdowns. Health issues. Logistical challenges.

We braved and journeyed across this dismal period.

Our numbers dropped. Our margins plummeted. We were pushed into the red. But, our performance was better than our peers.

Now a new dawn beckons.

One that heralds promising prospects for graphite electrode sector. One that will sustain healthy demand. Provide superior realisations. And generate healthy returns.

Nobody said this path would be easy. But certain journeys are worth the work!

Possesses the largest single site plant in the world. (growing further to 100,000 tonnes in 18 months)

80,000 TPA *Installed capacity*	842 members *Team size*
178 ACRES *Land coverage*	1 *Largest global single-location plant*
₹ 1,369 crore *Revenue*	₹ 54 crore *EBITDA*
₹ 3,399 crore *Networth*	

Solidity	Liquidity
100% *Flexibility to manufacture UHP electrodes*	₹ 729 crore *Net cash flow from operations*
36% *Sales to top 10 steel majors*	Nil *Long-term debt*

Our presence

Headquartered in New Delhi, India

Manufacturing unit at Mandideep, Madhya Pradesh

Global presence across 30 nations

Equity listed on The BSE Limited and The National Stock Exchange of India Ltd.

For our shareholder

509631	HEG
BSE Code	*NSE Code*
₹ (6.56)	₹ 881
Earnings per share	*Book value per share*

Vision

A vibrant globally acknowledged top-league player in Graphite Electrodes and allied businesses with a commitment to growth, innovation, quality and customer focus.

Mission

To become a leading international player in Graphite Electrodes and related businesses by leveraging its core competence and thereby enhancing value to the customer, shareholder, employee and the society.

Business strategy

Strive for leadership in the global market

Strengthen our competitive edge

Enhance business profitability

Key Performance Indicators

2016-17	903
2017-18	2,771
2018-19	6,702
2019-20	2,293
2020-21	1,369

Net Revenue (₹ crore)

2016-17	872
2017-18	1,809
2018-19	3,719
2019-20	3,423
2020-21	3,399

Networth (₹ crore)

2016-17	88
2017-18	1734
2018-19	4,767
2019-20	138
2020-21	54

EBITDA (₹ crore)

2016-17	0.31
2017-18	*
2018-19	*
2019-20	*
2020-21	*

Debt-equity (x)

** Long-term debt fully repaid*

2016-17	(49)
2017-18	1,081
2018-19	3,050
2019-20	53
2020-21	(25)

Net Profit (₹ crore)

2016-17	(12.54)
2017-18	270.61
2018-19	763.60
2019-20	13.83
2020-21	(6.56)

Earnings per share (₹)

2016-17	157
2017-18	594
2018-19	1,488
2019-20	739
2020-21	729

Net cash from operations (₹ crore)

2016-17	0*
2017-18	120
2018-19	320
2019-20	289
2020-21	0

Dividend payout (₹ crore)

** During the FY 2018-19, the company also made a Buy back of Shares of ₹. 750 Crores.*

From the Chairman's desk

I am not overtly concerned about these numbers because there is a positive undercurrent that gives me optimism for the future. We reported the highest capacity utilisation among our peer group. It suggests that we have sustained our competitive edge in the global marketplace leading to a growing acceptance of our graphite electrodes.

Dear shareholders,

I trust you are all well and safe.

As I ink this statement, the second wave of the Covid-19 pandemic has ebbed leaving behind a trail of pain and suffering. My heart goes out to all the families who have been impacted by this health emergency.

The year that was

FY21 started on a dismal note as India stepped into a lockdown. But soon India bounced back with considerable momentum. Steel demand witnessed traction as did steel prices which shot up in the second half of the year. India ended on a high note which was considerably heart-warming.

From HEG's perspective, the year was challenging. The

abruptness in the operating ecosystem caught every player in the industry off-guard.

On the one hand we had to contend with reduced demand owing to a slowdown in economic activity across the world.

On the other we needed to minimise losses. Graphite electrode prices dropped sharply even as most graphite electrode manufacturers remained saddled with high-cost raw material inventory created in anticipation of healthy demand for graphite electrode.

Our financials is a replication of this reality… we ended FY21 with a 42% drop in Revenue from Operations and a Net Loss of ₹ 25.30 crore.

I am not overtly concerned about these numbers because there is a positive undercurrent that gives me optimism for the future. We reported the highest capacity utilisation among our peer group. It suggests that we have sustained our competitive edge in the global marketplace leading to a growing acceptance of our graphite electrodes.

The year that could be

FY22 appears to be positive. My optimism stems from two important realities.

Lag effect: We witnessed a strong uptick in the fortunes of the steel industry (demand and prices upped) towards the close of FY21. It should cascade into increased graphite electrode volumes and improved realisation in FY22. This is because the graphite electrode industry generally lags demand recovery in the steel industry due to its position in the steel producers supply chain. Moreover, we have exhausted our high-cost needle coke inventory in FY21. This should improve business profitability.

Growth impact: The steel industry should report healthy growth in CY22 assuming that the global GDP will grow by about 3% in CY22 (as per IMF estimates). The steel growth being closely linked to GDP growth mirrors this number.

With the operational graphite electrode capacity delicately balanced between demand and supply, the additional demand should improve the prospects of the graphite electrode industry in FY22.

Over the medium-term

A global research house suggests that China aspires to achieve net-zero carbon emissions by 2060. This would require it to reduce/shut operations of high carbon emitting sectors. Steel, in all likelihood, could feature in this list.

There appears to be substance in this aspiration as Chinese Authorities have recently ordered cuts at some of its steel-producing hubs. They estimate steel mills there will cut production by 20% to 30% in 2021. This could buoy the prospects for the global steel industry, especially the EAF steel sector (a considerably lesser polluting route for manufacturing steel). These developments augur well for the graphite electrode sector, and us.

The immediate challenge

The more intense and aggressive second wave of Covid-19 significantly disrupted the progress of India and the confidence of our fellow Indians. Thankfully, the pandemic curve has been flattened largely owing to all the brave hearts who have fought this battle. We at HEG, salute them for their courage, passion and perseverance in helping the fellow Indian.

While this health emergency will impact economic progress in the first quarter of FY22, a resilient India is sure to rebound with speed. Going forward, I believe things will only get better.

In closing

HEG appears perfectly positioned to capitalise on emerging opportunities effectively

- Our liquidity strength, a deleveraged organisation and a gross cash pool of ₹ 1521 crore as on March 31, 2021 provide strength to overcome adversities.
- Our people's 'will do' attitude enables the Company to surge ahead against all challenges.
- Our additional brownfield capacity of 20,000TPA will be commissioned by early 2023. With no other new graphite electrode capacity on the anvil, we should be able to service a larger share of the additional demand.

While we refrain from making any predictions or estimates for the coming years, we are preparing ourselves for every eventuality.

Before I end, I would like to thank the entire HEG team who, once again, have braved through the raging pandemic to meet customer commitments. I also thank the Board for their continued guidance in charting the Company's blueprint. My thanks to our other stakeholders, who continue to be our partners in growth. I also place on record my sincere appreciation to all our shareholders for their continued confidence and support.

Warm regards

Ravi Jhunjhunwala

Chairman, Managing Director & CEO

Management Discussion & Analysis

Global economy

From an economic perspective, in 2020, World output shrank by 3.3%, -significantly lower than the GDP decline in 2009 owing to the Global Financial crisis.

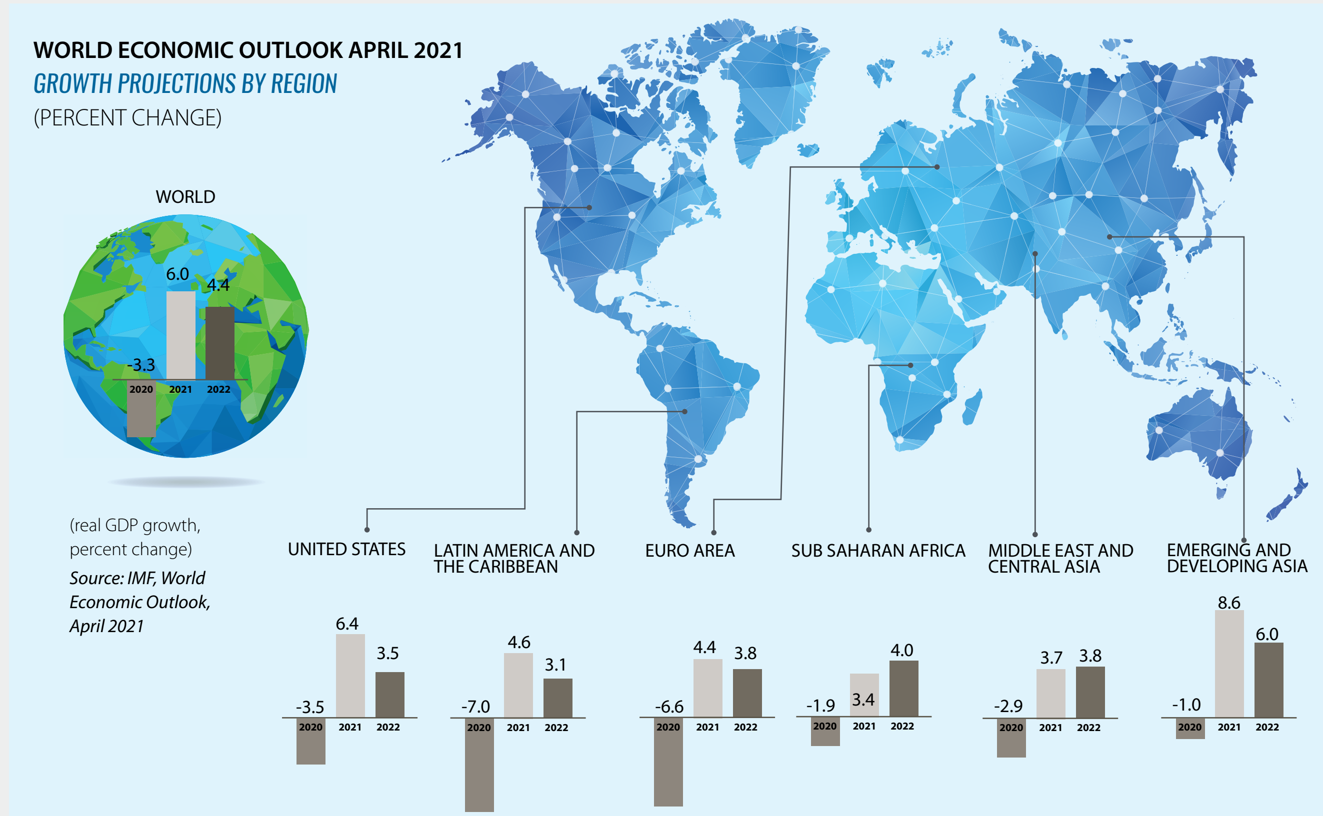
The pandemic hit the developed economies the hardest, with an estimated output decline of 4.7% in 2020, due to the strict and prolonged lockdown measures that were imposed in many European countries and some parts of the United States during the outbreak. The contraction was comparatively milder in developing countries, with output shrinking by 2.2% . The aggregate figure masks, however, significant regional variation.

Unprecedented Policy action: A year ago, with the world economy seemingly staring into the abyss, central banks swiftly provided liquidity and supported credit extension to a vast array of borrowers. At the same time, fiscal authorities channeled relief to households and firms through transfers, wage subsidies, and liquidity support. These actions supplemented other aspects of the safety net, such as unemployment insurance and nutrition assistance. Financial regulators in many countries facilitated continued credit provision with a range of measures as a support. Exchange rate movements have reflected these shifts in risk sentiment; most emerging market currencies and those of commodity exporters have appreciated, while the US dollar has depreciated since last April. All these developments helped limit amplification of the shock.

Going forward: Global prospects remain highly uncertain one year into the pandemic. New virus mutations and the accumulating human toll raise concerns, even as growing vaccine coverage lifts the sentiments. Economic recoveries are diverging across countries and sectors, reflecting variation in pandemic-induced disruptions and the extent of policy support.

The outlook depends not just on the outcome of the battle between the virus and vaccines, it also hinges on how effectively economic policies deployed under these highly uncertain times can limit lasting damage from this unprecedented crisis.

Estimates for 21 & 22 : The IMF projects a stronger recovery in 2021 and 2022 for the Global economy, with growth projected to be 6% and 4.4% respectively. A high degree of uncertainty surrounds these projections, with many possible downside and upside risks. Much still depends on the race between the virus and the vaccines.



Indian economy

FY21 was a remarkable demonstration of resilience and resurgence by the Indian economy.

After a contraction in GDP for the first half of FY21, a negative growth of 24.4% and 7.3% in the first two quarters India recovered smartly to emerge as one of the select few economies that have witnessed positive year-on-year growth - in the three month period October-December'20; it grew by 0.4%. GDP growth in Q4 of FY21 was much higher at 1.6%.

On an overall basis though, growth in India's real GDP during 2020-21 is estimated at -7.3% as compared to 4.0% in 2019-20 (according to the second estimate by the Government).

The accelerated momentum in economic activity in the second half is also reflected in the healthy GST collection – it crossed the ₹ 1 lakh crore mark at a stretch for the last six month, being ₹ 1.23 Lakh crore in March 2021, the highest collection ever since the launch of GST.

The net indirect tax collection in 2020-21 grew 12.3% annually to ₹10.71 lakh crore, exceeding the previous year benchmark at ₹ 9.54 lakh crore.

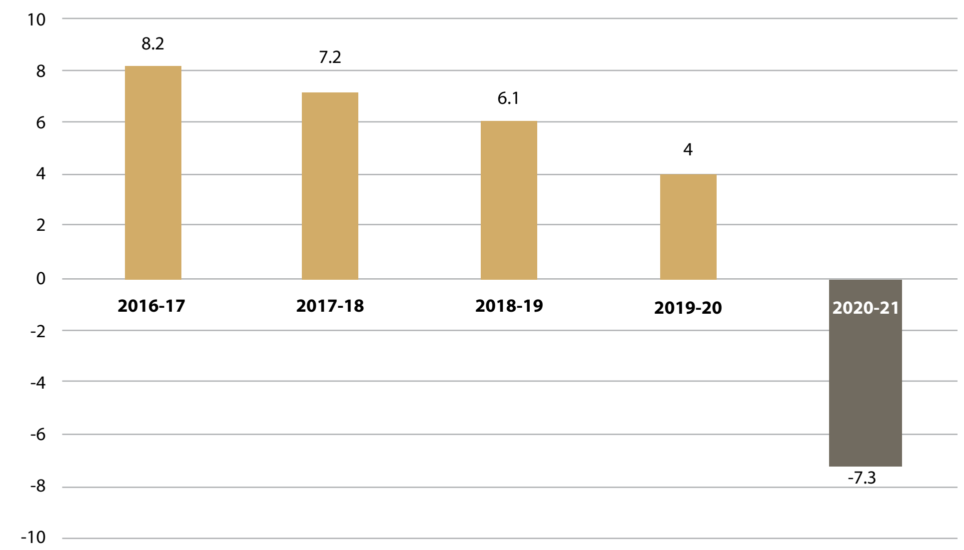
The manufacturing sector, after a sharp dip in Q1 of 2020-21 owing to the pandemic-induced lockdowns, rebounded sharply with the IHS Markit India Manufacturing PMI settling a shade above 55 in March 2021.

The agriculture sector is estimated to see a growth of 3% in 2020-21, however, lower than 4.3% in 2019-20.

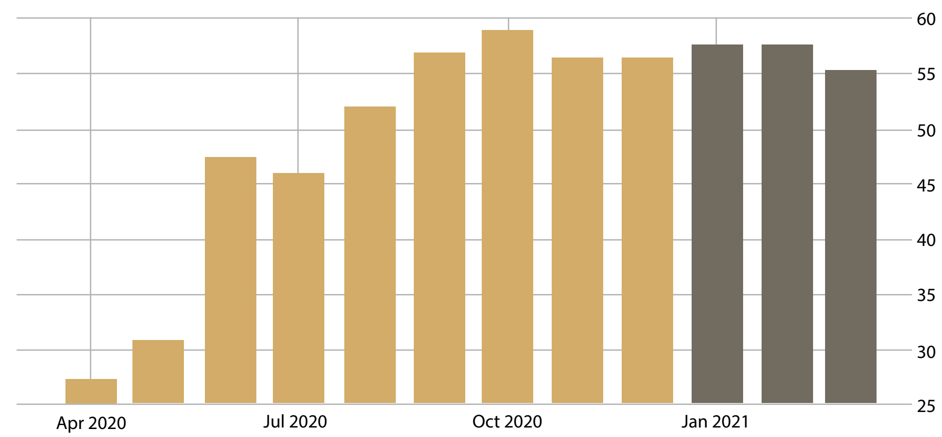
In view of the economic momentum in Q4 of 2020-21, most economic experts had predicted a sharp recovery in India's economy. But the sudden outbreak of the second wave of Covid-19 across the Indian landmass, has emerged as a significant challenge to India's economic progress. Rating agency Standard & Poor's stated that a drawn-out Covid-19 outbreak will impede India's economic recovery. Other institutions of global repute have also lowered their growth estimates for India in 2021-22.

With the raging Covid pandemic putting severe stress on the economy, the Reserve Bank of India (RBI) unveiled a host of measures to boost fund flow to the healthcare sector and ease the pain of small borrowers and units. The RBI has opened an on-tap liquidity window of ₹ 50,000 crore with tenors of up to three years at the repo rate of 4% till March 31, 2022 to boost liquidity for ramping up Covid-related healthcare infrastructure and services in the country.

GDP Growth (%)



IHS Markit India Manufacturing PMI



The steel sector

Steel and economic progress: Infrastructure is a key index of a country's economic position at the global stage. Developing infrastructure augments a country's productivity, making firms more competitive and boosting the overall economy of a region. To that end, countries need steel to build new infrastructure like roads, railway lines, buildings and bridges, and also need it to lay new pipelines for gas, water and sanitation, etc. Besides, steel is used in almost every aspect of individual lives too - from cars to refrigerators to washing machines. Evidently then, steel consumption is widely taken to be an indicator of economic development.

Global steel in 2020

The pandemic impacted almost every nation across the globe. It impacted lives and livelihoods is an unprecedented manner. To contain the impact Governments across the globe rushed to alleviate the hardship and suffering of its people. This relegated investment in steel consuming projects to the backburner for most part of 2020. In the second half of 2020, the horizon cleared and economic activity gained momentum in advanced and major developing economies leading to an uptick is steel production and consumption.

Production: Global crude steel production reached 1,864.0 million tonnes (Mt) for the year 2020, down by 0.9% compared to 2019.

Asia produced 1,374.9 Mt of crude steel in 2020, an increase of 1.5% compared to 2019. India and Japan, the No. 2 and No. 3 steel producers, respectively, both saw their output decline in 2020. India's fell by 10.6% (99.6 Mt in 2020), while Japan's dropped by 16.2%.

The EU produced 138.8 Mt of crude steel in 2020, a decrease of 11.8% compared to 2019. In the CIS, production was 102.0 Mt in 2020, up by 1.5% on 2019. Crude steel production in North America was 101.1 Mt in 2020, down 15.5% on 2019.

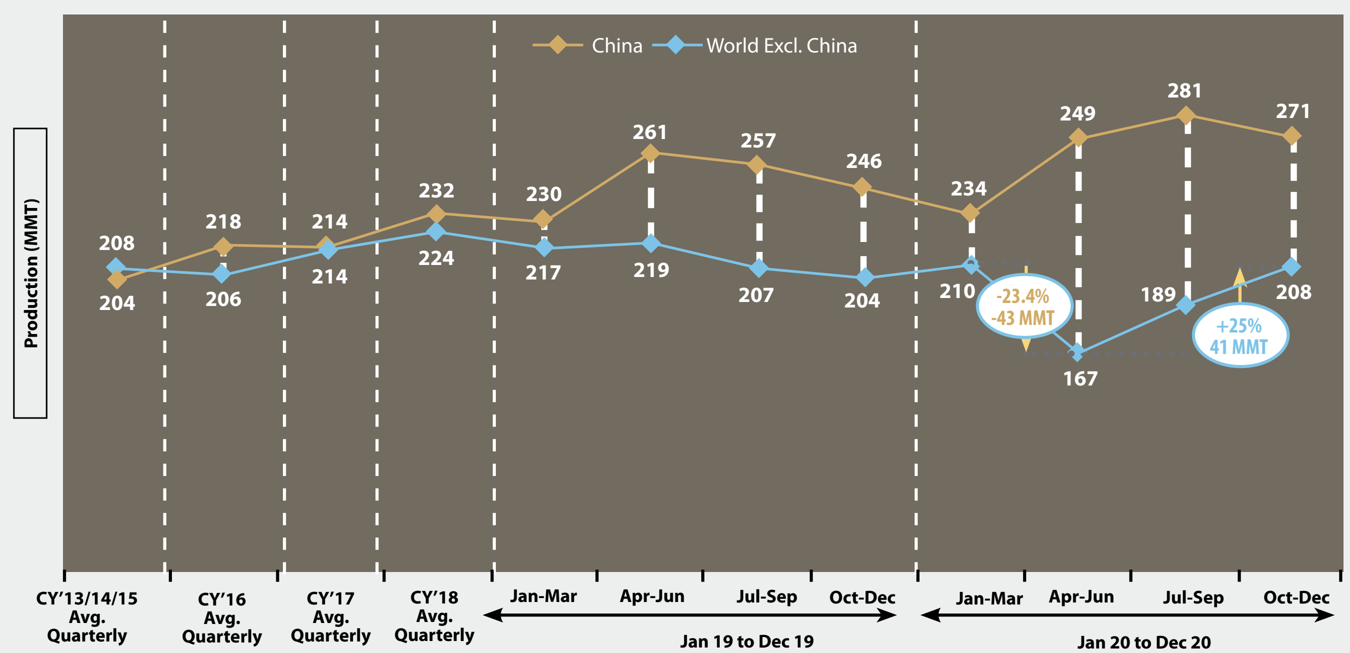
Among the top 10 steel producers in the world, only China, Russia, Turkey and Iran posted year-on-year growth. Mirroring its economic recovery compared with the rest of the world, China's steel production remained strong compared with the rest of the world. Its crude steel production in 2020 reached 1,053.0 Mt, up by 5.2% on 2019. China's share of global crude steel production increased from 53.3% in 2019 to 56.5% in 2020.

Steel price rally in 2020: Up to 30% of global steel-making capacity (excluding China) remained idle or operated at reduced utilisation in response to a pandemic-induced drop in demand.

However, the recovery in automotive production and white goods manufacturing was quicker than expected when the strictest lockdown measures were lifted. The construction sector was less affected, as it was supported by government stimulus schemes in many regions.

The restarting of steel plants was not sufficiently quick to meet growing demand, while inventory levels reduced to historical lows. Moreover, restocking across the steel value chain in Europe and the US created additional demand. As a result, steel prices rallied in all regions in late 2020. They continue to rise and have reached highest ever levels.

Estimates for 2021: According to the World Steel Association steel demand will grow by 5.8% in 2021 to reach 1,874 Mt. The new forecast assumes that the ongoing second or third waves of Covid-19 infections will stabilise in Q2 and that steady progress on vaccinations will be made, allowing a gradual return to normality in major steel-using countries. The developed World's Steel demand will see substantial recovery in 2021.



Indian steel in 2020

Steel consumption is widely taken to be an indicator of economic development. As a fast-developing country aiming to become a 5 trillion-dollar economy in few years, India's economic growth is closely linked to the growth of its steel industry. It is the ultimate article of trade which can potentially fuel the rise of India as a global manufacturing hub and give the much-needed boost to its 'Make in India' campaign.

What Steel can do to make India a 5 trillion-dollar economy

The crucial role of steel in India's growth and its future has been captured in a report prepared by the National Council of Applied Economic Research (NCAER). Its findings suggest that the steel sector in India has a very high potential of contributing in India's overall development. Indeed, it is the one commodity that has multifarious applications spanning diverse sectors of economic activity.

That steel plants present huge employment opportunities, especially in Tier III cities. Steel has an employment multiplier effect of 6.8x while it has an output multiplier effect of 1.4x. Further, India has now overtaken Japan to become the world's second largest producer of crude steel, producing more than 100 mmt last year. Steel now contributes about 2% to India's GDP and employs some 6 lakh people directly and 20 lakh people indirectly.

Moreover, India's strategic location marked by a long coastline to enable exports and imports makes it a key player in the global steel market. These statistics alone are reflective of the importance of steel in propelling the country's growth beyond 7% Y-o-Y.

Performance in FY21: Domestic production of crude steel and finished steel fell by 5.9% to 103 million tonnes and 7.3% to 95.1 million tonnes in FY21. Consumption of finished fell by 6.7% in FY21.

During FY21, export of finished steel from India was higher by 29.1% at 10.8 million tonnes as compared to export during FY20, mainly driven by China. Import of finished steel at 4.8 million tonnes was lower by 29.8% over the previous year.

Steel producers made rapid gains after producing half their usual volume during the initial months of the pandemic. Production during February rose 7.4% (January they rose 7.6%) on a year-on-year basis to 9.2 million tonnes. The scale-up comes amid a sharp rise in domestic and global steel prices.

Going forward: Ratings agency India Ratings and Research (Ind-Ra) revised its outlook on the domestic steel sector from negative to stable for FY22. It expects FY22 steel volumes to improve year-on-year and compensate for a likely moderation in per tonne margins, as an up-cycle in steel prices in expected to continue in FY22.

Absence of China from the world export market and higher import of steel from China is one of the major factor keeping steel prices elevated. Continued higher demand from China on the back of a stimulus package and the country's desire to bring down production levels in 2021 to reduce Co^{2} levels will be an important factor that will strengthen steel prices. Demand-supply imbalance in the global market will also continue to present export opportunities to domestic players.

EAF, the preferred route for Green Steel

Steel production through the EAF route has seen a 3% CAGR over the long term (say 15-20 year period). This trend is expected to continue considering the inherent benefits of the EAF route with regard to environmental concerns and sustainability.

EAF steel segment

Around 75% of all types of modern-day steel were developed only in the last two decades; there are as many as 3,500 different grades of steel and each grade offers environmental, chemical and physical properties unique to that grade of steel. All this customisation of steel for varied applications is done primarily by the secondary steel sector more particularly through the EAF route.

EAFs can produce all kinds of steels, from metal for basic products like reinforcing bar to stainless and high alloyed special steels, where flexibility and smaller capacities are advantages.

After holding at approximately 25% of global steel-making production for about a decade through 2012, the migration to Electric Arc Furnace (EAF) steel-making accelerated during the past seven years.

Performance in 2020: In the first half of 2020 (CY), steel production through the EAF route was down in some large steel producing nations such as Europe, the US, Japan, Russia and Turkey, besides India owing to the slowdown in demand, trade tensions between the US and China and other geopolitical tensions in other parts of the world.

With the phased unlocking of business activities, steel production through the EAF route picked up.

Covid impact on India's secondary steel sector: The pandemic has dealt a body blow to the fortunes of the secondary steel producers.

During the peak lockdown period, primary steelmakers were able to catch up with the lost domestic demand through exports, which the secondary players could not due to limited reach and infrastructure.

Also, limited scale of operations and weaker financial flexibility to cope with the multiple challenges thrown by the pandemic delayed their recovery.

Further, in the second half of FY21, while a surge in steel prices bolstered the fortunes of ISPs (integrated steel plant), it had very little impact on the profitability of secondary steel producers as raw material prices too shot up at the same time. A number of secondary steel manufacturers were unable to pass on the input cost increase.