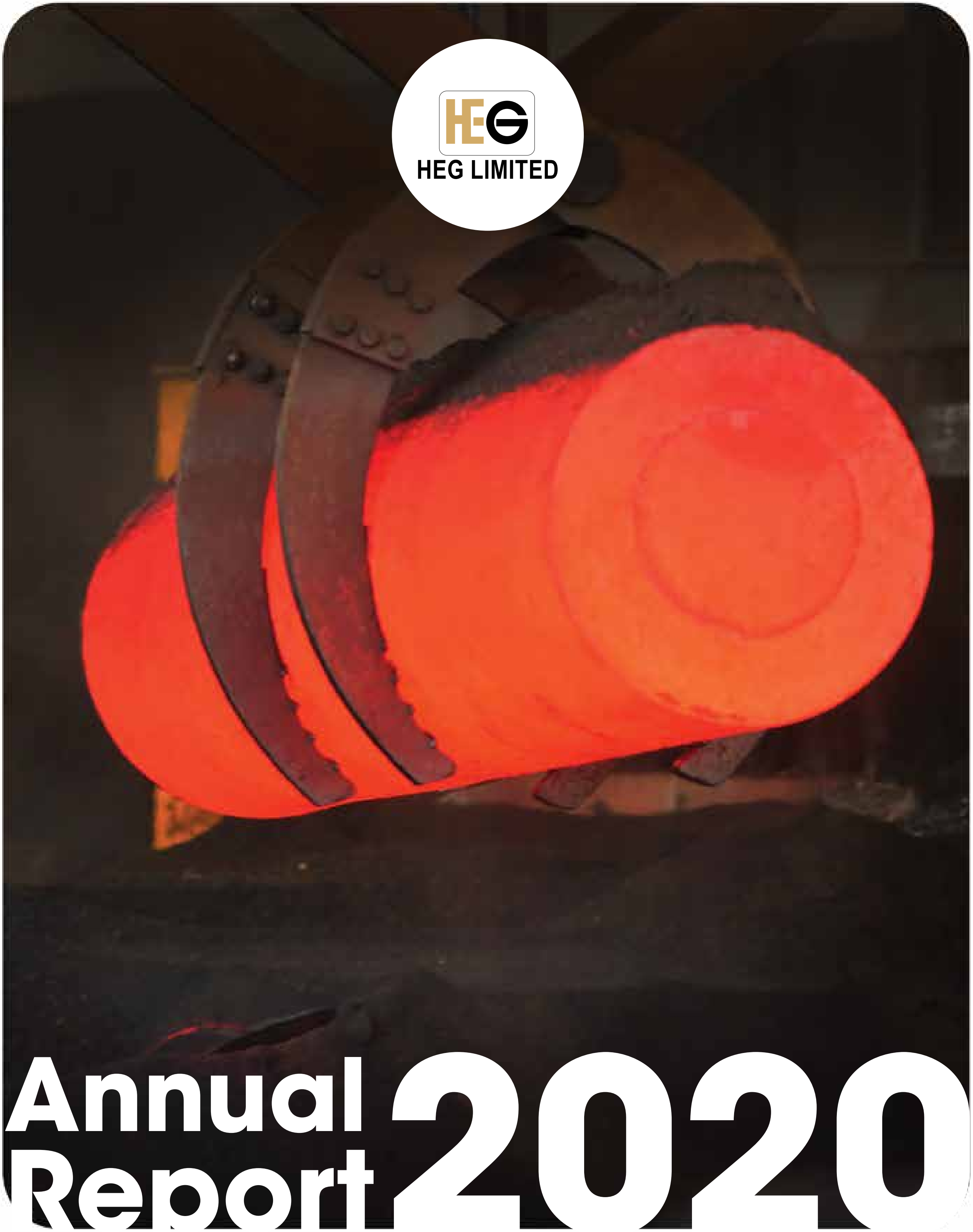


HEG LIMITED

# Annual Report 2020

# Contents



At HEG, we believe that there is just one way to be sustainably successful.

Going beyond the conventional standards – in product quality and customer service.

We have done this repeatedly to the point that this has become our culture and an inherent part of our value system.

In doing so, we have emerged as one of the world's most dynamic graphite electrode manufacturers.

What is even more remarkable is that HEG is not only one of India's leading players of graphite electrodes but also features among the most trusted corporates in the business space.

## Trusted by more than 100 steel manufacturers across the globe.

# About HEG

A premier company of the LNJ Bhilwara Group.

Among the Top 5 Graphite Electrode manufacturers in the world.

Possesses the world's largest Single-Site Integrated Graphite Electrode plant, located at Mandideep (Bhopal), Madhya Pradesh.

Largest Graphite Electrode Exporter from India - consistently exporting to more than 30 countries.

## 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.

Headquartered in Noida, NCR Delhi, India

Business operations managed by an 867-member-strong team.

Capability to manufacture both UHP and HP electrode variants; flexibility to manufacture 100% UHP grade electrodes.

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

# From the Chairman's desk

"Our Company's edifice is robust enough to withstand every challenge. For, our people have successfully encountered numerous ups and downs in our four-decade journey, their 'bring-it-on attitude' is what has and continues to inspire me to surge ahead with confidence."

*Dear shareholders,*

It's always a pleasure to paint a picture of our performance and prospects. There are times when the shades are dull and, at times, they are brighter than sunshine. This year, it has been a smudged palette of delight and deep breaths.

All around us we see faces smeared by the fright of a dreaded microbe that's claiming lives in thousands every day across the world. It leaves no room for sunshine to sneak in and a darkness of uncertainty only gets thicker. Let's look

beyond the blackness and wait for the green shoots to emerge, heralding the advent of brighter prospects.

A year ago, when I had picked up the palette last time, I had drawn the footsteps of the industry retracing itself from the heady highs it scaled in 2018-19 to a plateau where it could stabilise. Let's look back at the picture, for this will help us comprehend our present, and more importantly, our future.

## A collage of blues

For two years spanning over 2017 and 2018, unprecedented tightness in supply of electrodes pushed the prices upwards like a wild stallion. Steel majors across the world stocked up inventories more than required to sustain operations and optimise their cost structures. The surge helped the company enjoy exceptional profits.

A year later, the landscape changed, and the steel sector headed into the red. Global crude steel production in 2019 slumped to minus-1.7%, excluding the exceptional 8.3% growth in Chinese output. China jacked up the global average to a meagre 3.4% during the year under review.

Electrodes could not retain the heat in 2019 and a slack in demand eased the prices sequentially. But the inventory overhang did not dissipate entirely; this dimmed our performance. Our sales volumes dropped, and so did realisations. A decline in revenues hung over our profits. Our profitability fell faster in the face of high-cost inventory of needle coke.

> The Ultra High Power (UHP) grade electrodes are used in large furnaces, which are melting furnaces. The HP electrodes are used in ladle furnaces (which support the electric arc furnaces) which are used for refining and do not require electrodes with stringent quality specifications. So UHP and HP are not switchable.

The blues continued with the Covid-19 pandemic morphing two fiscal years and prompting a blanket ban on all activities.

## A portrait of 'now'

At the first glance, the palette for today looks woefully splotched by an undesired abundance of gray.

Fiscal 2020-21 began amid an unanticipated catastrophe, seemingly potent enough to wipe out the rainbow race. For the unprecedented tragedies it unleashed, no planning whatsoever deemed fit. Standing even amid this reign on uncertainty, I truly appreciate the proactive steps taken up by the central and the state governments and the untiring efforts of healthcare professionals and civic authorities in containing the spread of Covid-19 to minimise the loss of lives. I can't help bowing down to the dogged determination of our brave frontline warriors.

It is because of their passionate and patient endeavour that India has recorded a more than 50% recovery rate in economic activities.

HEG, like many other enterprises dotting the Indian landmass, didn't give in to the pain inflicted by the pandemic and the containment measures that had brought everything to a standstill. Adversity, we believe, is the true test of character. And, I feel proud to declare that your Company prioritised the health and safety of its employees above everything else. We stayed distant, but remained more connected than ever. As a team, we became more cohesive during the lockdown days.

The colour begins to look brighter as I look for the prospects.

The first quarter appears to be a washout. Business activity was abysmal. This makes our shareholders concerned about the Company's stability. But am I worried? To be honest, no.

First, from an economic perspective, I believe that the green shoots of recovery are close at hand. Although the spread of Covid-19 continues unabated, people have begun stepping out to push the wheels of progress forward. Developed nations commenced business activities in a phased manner. India, too, began easing the lockdown in a staggered way. I strongly hope to see a pickup in economy over the next 3-6 months.

Second, our liquidity war chest built prudently over the last two great years, powers us to tide over today's slump, even as we continue operating our plant at about 50% capacity.

Lastly, aligned to the 'slowbalisation' prevailing across the globe, our peers continue to operate at similar or lower capacity utilisation. The consequent reduction in supply should help reduce the inventory pile-up with global steel majors and rekindle demand and stabilise realisation.

The slowdown in electrode demand caused a fall in needle coke prices bringing them to more realistic levels.

Despite the brighter hues behind the gloomy gray, I believe, the dullness will prevail in the very short term. Our financial performance will remain muted in 2020-21 – a drop from the 2019-20 numbers appears imminent.

## A frame for the 'next'

Tomorrow comes as a landscape painted with all the shades of possibility. Electrodes, I believe, are fully charged for a spike around the end of this fiscal for a long run.

The crisis has taught us to be more focused on medical facilities. Developed economies have started working towards a stronger and more effective healthcare infrastructure. Communication network and infrastructure, which emerged as the most critical lifeline during the lockdown across the world, would be reinforced. Strategic and capital investments will start moving and stalled projects will once again be brought to life. All these point to one reality – a turnaround in the fortune of the steel industry. And, that will inevitably fuel the demand for electrodes.

Also, the pandemic has brought the spotlight on the benefits of EAF steelmaking because of its faster stoppage and inexpensive restart as opposed to the blast furnace, which continued to work even during the lockdown. This could veer new investments in steelmaking infrastructure towards EAF.

## The final brush strokes

Our Company's edifice is robust enough to withstand every challenge. For our people have successfully encountered numerous ups and downs in our four-decade journey. Their bring-it-on attitude is what has and continues to inspire me to surge ahead with confidence.

Going forward, while we refrain from making any predictions or estimates, we are preparing ourselves for every eventuality. This would enable us to shift gears almost instantly to align with the increasingly dynamic ecosystem we are operating in.

The HEG team worked aggressively towards cost optimisation in all spheres and manpower rationalisation to make the Company a lean fighting machine and emerge stronger from this slowdown.

I take the opportunity to thank the entire HEG team for their unique passion and dedication to our clients and our business. I express my sincere gratitude to fellow Directors for their commitment and professionalism in paving HEG's long-term path. My thanks to our other stakeholders, who continue to be our partners in growth. I also place on record my deep appreciation to all our loyal and valuable shareholders for their continued confidence and support.

It's your confidence that has brought us this far, it is this fuel that will accelerate us into a new orbit.

Warm regards

**Ravi Jhunjhunwala**

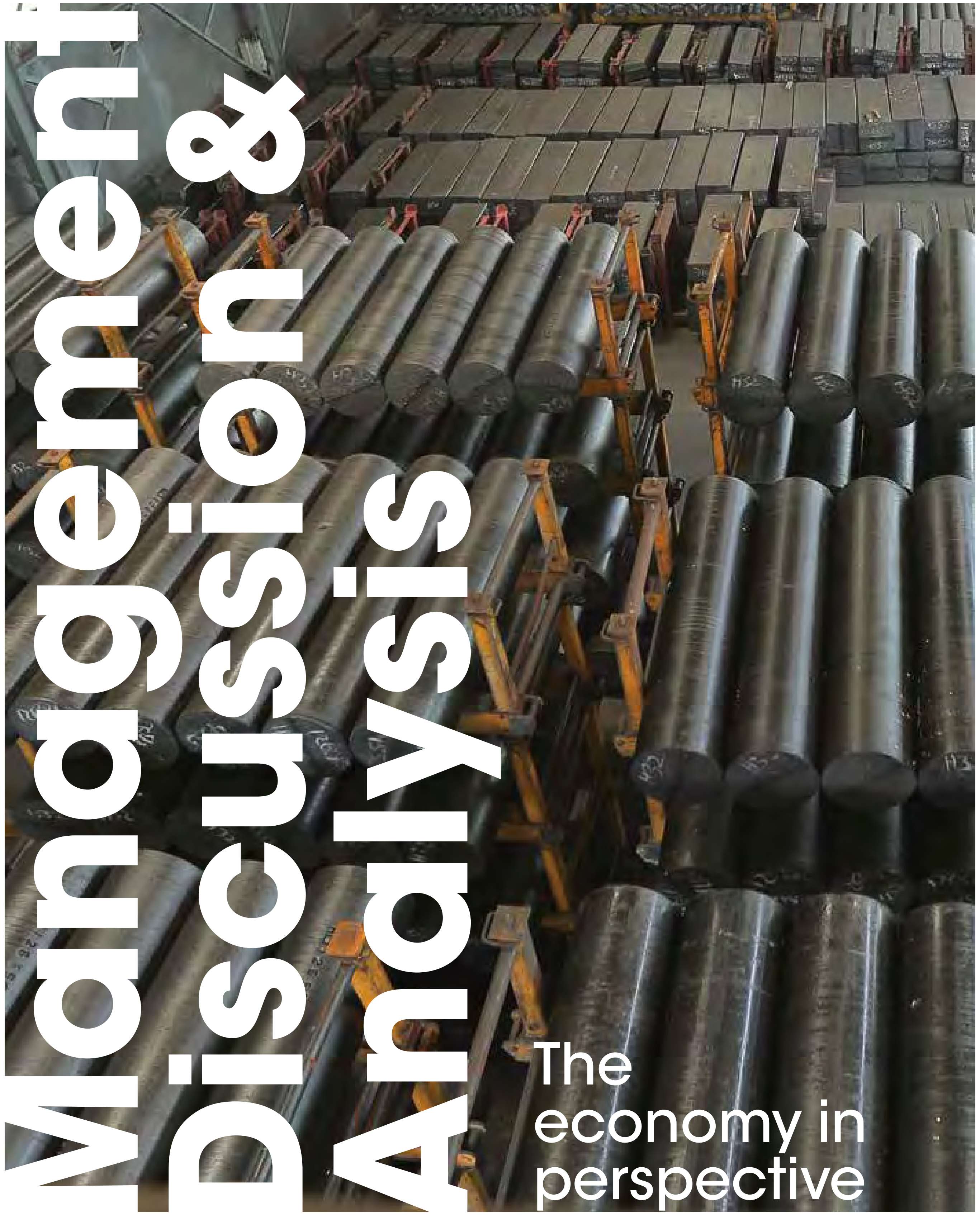
*A fellow shareholder*

# Key Performance Indicators

| | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
|---|---|---|---|---|---|
| Net Revenue (₹ crore) | 914 | 903 | 2,771 | 6,702 | 2,293 |
| EBIDTA (₹ crore) | 140 | 88 | 1,734 | 4,767 | 138 |
| Net Profit (₹ crore) | (8) | (49) | 1,081 | 3,050 | 53 |
| Net cash from operations (₹ crore) | 271 | 157 | 594 | 1,488 | 878 |
| Networth (₹ crore) | 923 | 872 | 1,809 | 3,719 | 3,423 |
| Debt-equity ratio (x) | 0.28 | 0.31 | (*) | (*) | (*) |
| Earnings per share (₹) | (1.92) | (12.54) | 270.61 | 763.60 | 13.83 |
| Dividend payout (₹ crore) | - | - | 120 | 320 | 289 |

(*) Long- term debt fully repaid

# Management Discussion & Analysis



## The economy in perspective

### Across the globe... economic activity was dull and down.

Global growth decelerated markedly in 2019 with continued weakness in global trade and investment. This weakness was widespread, affecting all – advanced economies, particularly the Euro Area, emerging markets and developing economies. Various key indicators of economic activity declined parallelly, approaching their nadir since the global financial crisis.

In particular, global trade in goods was in contraction for a significant part of 2019, and manufacturing activity slowed markedly over the course of the year. Bilateral negotiations between the United States and China since mid-October resulted in the Phase One agreement, including a planned partial rollback of tariffs, that de-escalated trade tensions.

Financial markets were fragile for most part of 2019. Concerns about growth prospects triggered widespread monetary policy easing by major central banks last year, as well as flight to safety flows into advanced-economy bond markets. But the sentiment improved appreciably towards the end of the year along with the easing of trade tensions.

Against this global backdrop, economic growth weakened to an estimated 2.9% last year — the lowest rate of expansion since the 2008-09 financial crisis.

### 2020: Unprecedented

This has been a year of fright not for businesses alone, but for the entire human race. The Covid-19 pandemic ravaged the world, spelling doom and drawing the civilisation to its knees. The world never experienced such a shock since the end of the World War II.

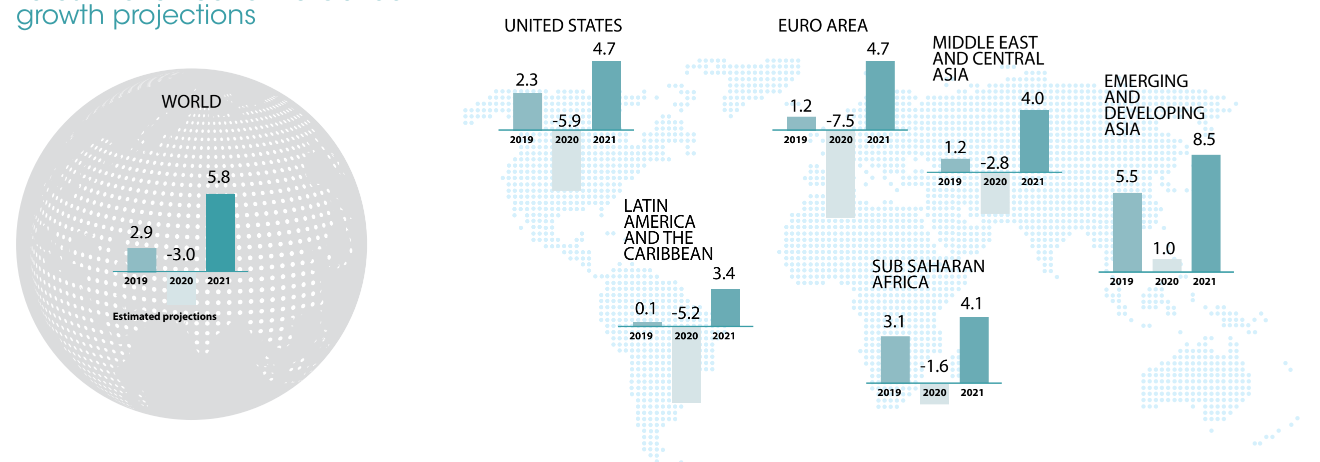
The pandemic has inflicted a rise in human costs worldwide. Protecting lives and allowing healthcare systems to adapt to the time called for isolation, lockdown, and widespread closure to check the spread of the virus. The loss in businesses because of this crisis and its containment measures possibly dwarf the losses that the two global financial crises had caused. Moreover, the shock isn't over yet. The pandemic has driven the world into a state of severe uncertainty of unknown duration.

The health crisis has left a severe impact on economic activities. As most countries fight this unprecedented threat with measures like strict lockdowns and isolations, the wheels of the economy have come to a teetering halt. As a result of the pandemic, the global economy is projected to contract sharply by 3% in 2020.

In a baseline scenario, which assumes that the pandemic fades in the second half of 2020 and containment efforts can be gradually unwound, the global economy is projected to grow by 5.8% in 2021 as economic activity normalises, helped by policy support.

*(Source: IMF April, 2020)*

Latest World Economic Outlook growth projections




(real GDP growth,percent change)

# In India... economic fragility preceded the pandemic.

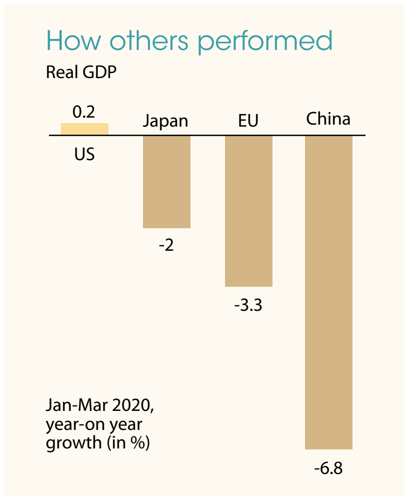
The Indian economy was in its worst phase even before the Corona virus outbreak, with the growth rate in gross domestic product (GDP) hitting an 11-year low of 4.2% in 2019-20. The economy grew by 3.1% in the January-March quarter of 2019-20 as against 5.7% at the same time a year ago, the slowest growth in at least eight years.

The slowdown was triggered by a mix of both internal as well as external factors such as a synchronised global slowdown, demonetisation, poor implementation of GST, historically low automobile sales, a flat growth in core sectors and a steady decline in investment into construction and infrastructure. A stalemate in real estate developments, record unemployment and rising costs paint a gloomy picture of the economy.

According to National Statistical Office data, the manufacturing sector has grown merely 0.03% in FY2019-20, compared to 5.7% in the previous year. The growth of the construction sector, which is responsible for a spillover effect on several other industries, too declined to 1.3%.

The gross capital formation remained low in FY 2019-20, while the growth of deposits in banks declined to 7.9%, compared to 10% in the previous fiscal, hinting at low-level savings. Bank credit growth more than halved to 6.1%, compared to the previous fiscal's 13.3% growth, which shows that consumption too will remain tepid.

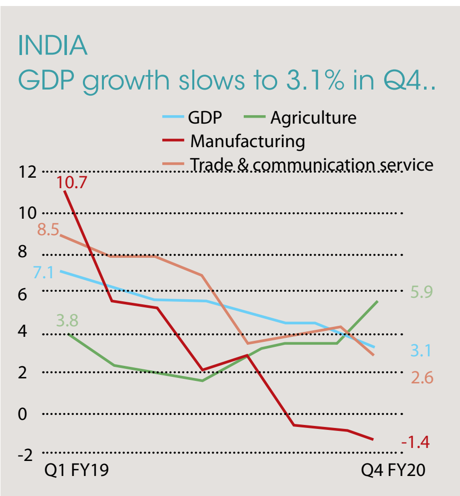
The situation worsened when most public sector banks began gasping for breaths under a huge burden of non-performing assets (NPAs). There was an obvious freeze in lending and consequently the banks started seeking deposits and making provisions for bad debt. The NBFC crisis weakened the financial health of the economy further with a massive liquidity crunch in the system.

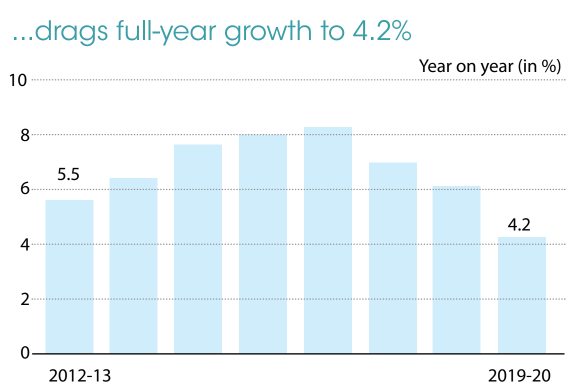


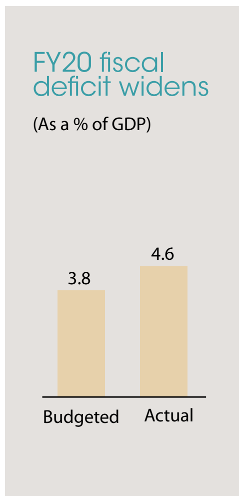

To add to the government's woes, India's fiscal metrics worsened beyond estimates, with the fiscal deficit for FY20 widening to 4.6% of the GDP as against the finance ministry estimate of 3.8%.

And, just when the green shoots of recovery were seen emerging, the Corona virus struck India. The nation enforced one of the longest and strictest lockdowns in the world to contain the spread of the disease. It triggered severe demand-supply shocks and nixed the economy's incipient recovery with further job losses across sectors.

Despite this economic disruption, experts are optimistic about India's resurgence. They believe that while the economic damage of the pandemic has so far been deep-rooted and far-reaching in India, there still is hope that economic activities will spike once the lockdown is lifted.




# Steel sector

Steel. It's indispensable and invaluable.

Every individual is in touch with this metal every moment. Almost everything that we use is either made from or manufactured with steel. It is a uniquely versatile material and is widely regarded as a high performance, contemporary engineering material.

What is even more exciting about steel is that it continues to lend itself to being improved and innovated to meet dynamic and challenging demands through the decades. This intrinsic benefit of steel makes it a sustainable choice in a growing number of applications. This has made it integral to our modern living and critical to economic growth.

## Meltdown in global steels

Global crude steel production increased 3.4% year-on-year to 1.87 billion tonnes in 2019. Production contracted in all regions during the year except for Asia and the Middle East.

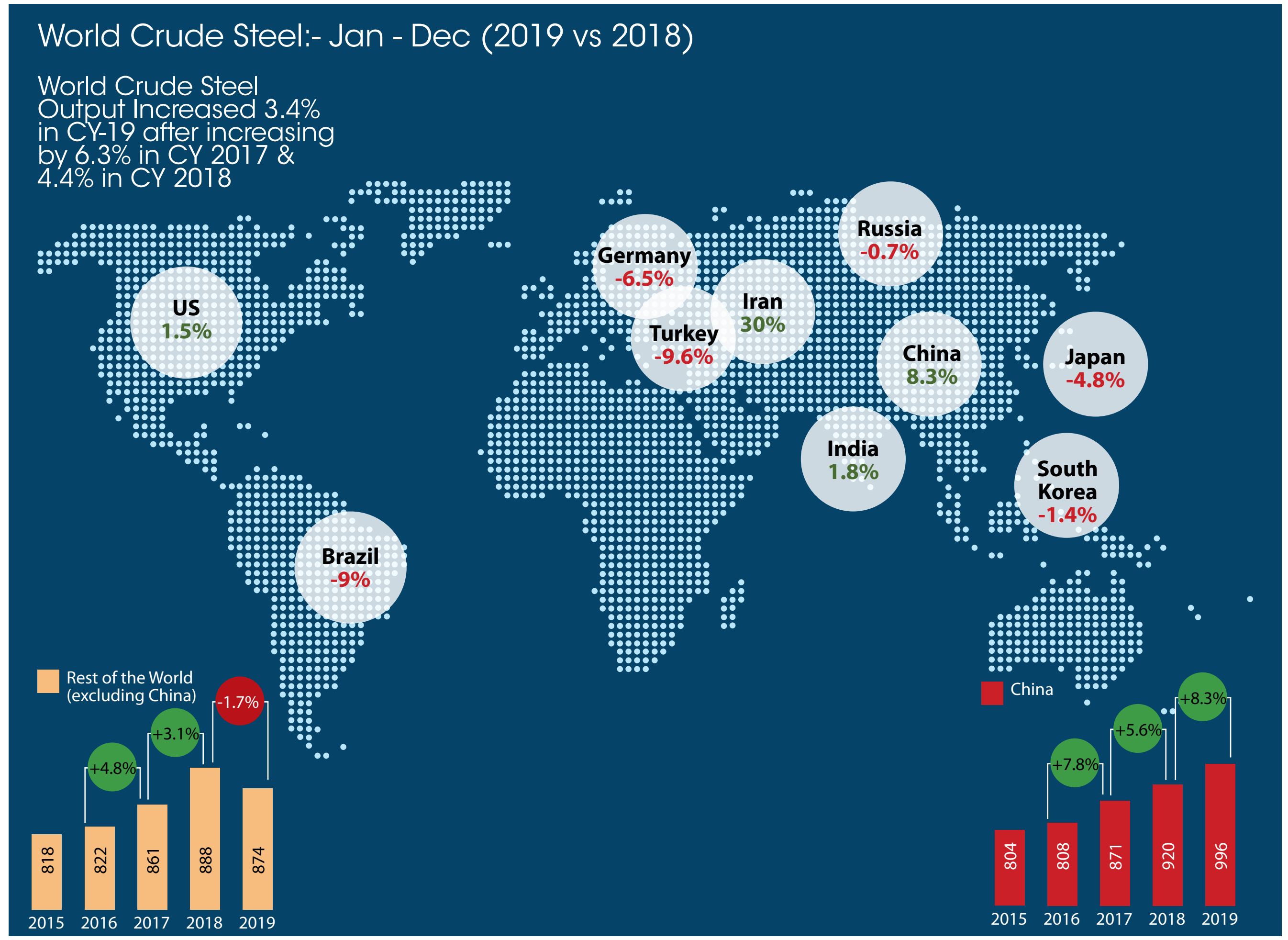
Asia produced 1.34 billion tonnes of crude steel in 2019, an increase of 5.7%, compared to 2018. China's crude steel production in 2019 reached 996.3 million tonnes (MT), up by 8.3% on 2018. China now accounts for 53.3% of global crude steel production – its largest share ever.

Globally, the monthly output on an annualised basis had topped 1 billion tonnes (BT) over April-September, supporting expectations that production can exceed this psychological mark in future.

In Europe, the negative trend in steel demand in 2019 hurt the domestic producers. The new EU import quota regulations created a rush for consumption by overseas suppliers, including finished steel products stock building, disrupting the stagnating EU steel market. Worldsteel data shows that crude steel production in Europe declined 5% YoY to 154.9 MT in 2019.

In 2020, Worldsteel forecasts that steel demand will contract by 6.4%, dropping to 1,654 MT due to the Covid-19 crisis. In 2021, steel demand is expected to recover to 1,717 MT, an increase of 3.8% over 2020.

**The overall impact of the steel industry is $2.9 trillion value added, and 96 million jobs globally.**



## … India was no exception to the global trend.

For Indian steel producers, 2019 was a year of woes.

Like its global counterparts, the Indian steel industry witnessed a steep price fall not seen in the past three years. For example, the prices of hot-rolled steel coil fell for 21 straight weeks. It was only towards the end of 2019 did some steel companies raise the price.

Production-wise, Indian steelmakers continued to face the challenge of imported steel flooding the market. This, and the lack of pickup of steel, led to some companies reducing their steel output.

Typically, 60-62% of steel end-use mix is accounted for by construction, while 8-10% of demand comes from automobile segments.

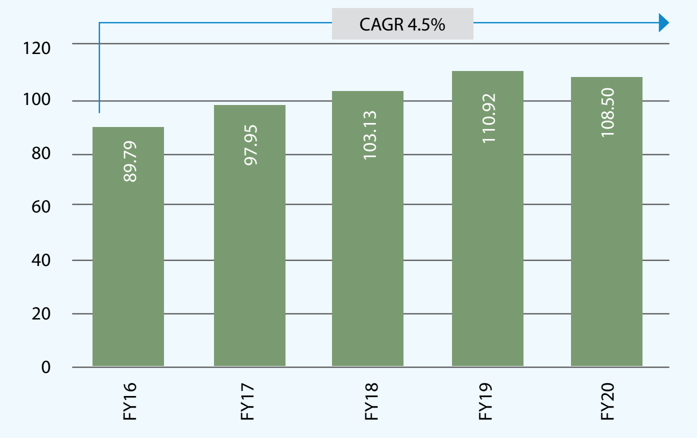
## Outlook

Covid-19 has disrupted operations irreversibly, setting the stage for a new normal that will see a realignment of power centres in different domains. The Corona virus crisis has impacted almost all supply chains dependent on China, which includes the steel sector.

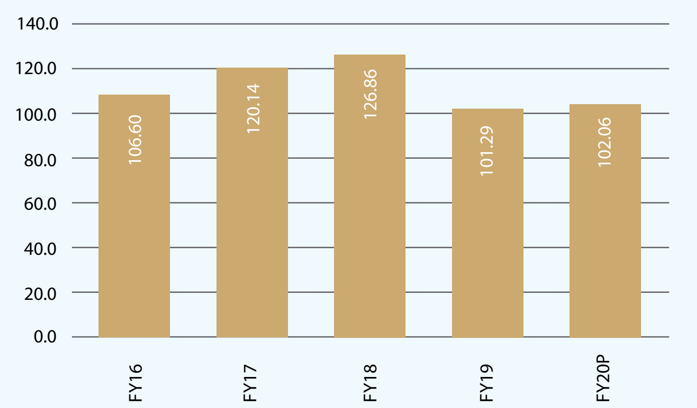
Fiscal 2020-21 promises to be very challenging for the steel industry for multiple factors like

- The closure of operations in most industries are expected to erode the nation's steel demand in 2020-21 by about 15%.
- Demand from infrastructure, construction and real estate sectors is likely to be subdued in the first half of FY21.
- Demand from automobile, white goods and capital goods sectors is likely to reduce with consumers deferring discretionary spends in the near term.
- Challenges with regard to availability of workforce and logistics movement of raw material and finished goods is expected to persist.
- An oversupply position would lead to price correction which would impact the profitability of steel manufacturers.

Total crude steel production(million tonnes)




Total finished steel production (million tonnes)*




## EAF steel segment

After holding at approximately 25% of global steelmaking production for about a decade through 2012, the migration to electric arc furnace (EAF) steelmaking accelerated in the past eight years.

The EAF steel production hit a new high in 2017 with a 14% year-on-year increase. This was followed by an additional 10% increase in 2018, taking the EAF contribution of almost 477 MT to 26% of the 1.8 BT of steel produced globally.

Electric arc furnace is an environmentally efficient way of manufacturing steel. About 45% of the steel produced globally is through this process, except in China.

**Performance in 2019:** Global Steel production through the electric arc furnace route was down by 1.15% in 2019, though in China, it paced up at a very healthy 59% and 33% in the two preceding years of 2017 and 2018 and went down to (4)% in 2019.

Some of the large steel producing regions like Europe, Japan, South America and Turkey registered a decline mainly resulting from slowdown in demand due to an overall sluggishness in the global economy, trade tensions between the US and China and other geopolitical tensions prevailing in some parts of the world.

In the US, steel production through this route grew by a healthy 3.9% where more than two-thirds of the total steel is produced through the electric arc furnace process. Iran's steel production, which is mainly EAF based, grew in 2019 by 4%. But due to sanctions imposed on China, India could not yield much of a benefit from this growth.

## EAF – the key to be carbon neutral

Looking forward to the next decade, EAF steelmaking will be a big winner in the race to produce green, carbon-neutral steel. European steel producers have worked diligently over the past two decades to reduce the carbon footprint of the steel produced through traditional integrated steelmaking, having accomplished the lowest levels possible from a scientific perspective.

The only path available to them to further reduce their carbon emissions is to shift to EAF production using alternative metallics, diverting large capital investments that would have been used to sustain their blast furnace/basic oxygen furnace (BF/BOF) production with EAFs.

# Graphite electrode sector

Graphite electrode is a key component for electric arc furnaces (EAFs) that turn scrap into steel. These are the only products available that have high levels of electrical conductivity and the capability of sustaining extremely high levels of heat generated in the EAF's demanding environment.

The past two years of 2017 and 2018 and the first quarter of 2019 saw an unprecedented tightness in the supply of electrodes. This fear created a surge in demand. Many large steel companies overbought electrodes, leading to excess inventory stockpile.

With the steel market getting tougher from the start of fiscal 2019-20, demand declined and production slowed causing an excess inventory of electrodes with the customer. This cascaded into a drop in demand for graphite electrodes and stabilisation of prices. In keeping with this global trend, all graphite electrode players reduced production by 15-20%.

The current year could see the return of normalcy in the market after the projected completion of inventory correction. The price of UHP electrodes, which saw extraordinary increase over the past two years, have stabilised and the current levels are expected to sustain in the short term.

## China: making a difference

China continued to register strong steel production growth, backed by an equally strong internal demand. China's export of steel to the rest of the world still remains at the same low level as the last 2-3 years.

The country continues to remain on the path of replacing its old blast furnaces with new electric arc furnace capacities to take its share to 20% through electric arc furnace production. But in all likelihood, it would miss its articulated target by 2020. It would take another 18-24 months to reach there.

China also continues to add electrode capacities to meet its internal demand. Since the EAF capacity is slower to come on stream, the country has excess inventory of electrodes which it is exporting. This is impacting the market for lower-grade HP-grade electrodes. This excess is expected to peter out as the planned EAF capacities see the light of day.

# Business operations

HEG produces two grades of graphite electrodes – Ultra High Power (UHP) and High Power (HP) – at its facility at Mandideep, India. The products are exported to leading steel producers across the globe.

### Standing out of the clutter

- Growing size in a single location provides economies of scale.
- An experienced senior management team helps it stay the course.
- Flexible plant operations (swing capacity between UHP and HP) helps capture opportunities.
- Wide geographic presence reduces overdependence in some markets.

Revenue vertical 1

# Graphite electrodes

A subdued steel sector across the globe resulted in depressed demand for graphite electrodes from key consuming markets. Realisation dropped sequentially in every quarter which impacted both revenue and profitability.

One key reason for a decline in profitability is the lag effect owing to the nature of the business in which the Company operates. There is a huge time gap of 6-9 months between raw material procurement and sale. So, while it used raw material (needle coke) procured at high prices, it had to sell the products at the prevailing depressed rates. This time-difference, inherent in the business model, impacted profitability.

The Company negotiated mutually beneficial terms with a government utility company which has enabled it to replace part of its high-cost self-generated power with power purchased from the state electricity board. While this step has reduced revenue and the bottomline of the Company's power segment, it has had a very favourable impact on the overall power cost for the graphite electrodes.

From a marketing standpoint, the Company continued to strengthen relations with the existing customers. It also worked on establishing its credentials among new buyers to widen its customer base. This should augur well for maintaining sales volumes in the prevailing ecosystem.