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Vol. 28 No. 10 | October 2022

Registered-RNI No. 62719/94

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D. A. Chandekar
Editor

Dear Readers,

The global IT industry headquartered in the US, has started job cuts on massive scale. Yes, the same IT industry which attracted millions of youth by its huge packages, designer offices, lavish and free working environment, is struggling to survive today. The job cuts have mainly happened in the US which is a clear sign of recession being just round the corner. I am sure the job cut wave will soon hit the Eurozone too. In the last few years IT sector had become an integral part of 'The Great American Dream' of almost every teenager across the world and this sector was seen as the 'gateway to the US' for a quality and wealthy lifestyle.

In the pandemic period this sector first started the concept of 'work from home' on a mass scale and saved millions which were being spent on the infrastructure and employee welfare. If one scans through the balance sheets of IT companies, surprisingly many have shown rise in the profits in this period, not by increasing the business but by reducing the costs. Again, I am not saying that this recession will dent the IT sector permanently but it's impact will surely be felt till the world completely comes out of the recession tunnel. I do understand that one can not imagine a world without IT or ITES. Such is its impact on all walks of life !

In all these discussions and analysis, we tend to forget one basic fundamentally important fact. The IT is not an industry by itself. It is a supporting sector to the real world economy. This means if there would have been no brick and mortal industry, no IT would be required, isn't it ? We all know that for the last 2/3 years, the deadly pandemic not only damaged the human life but also made a deep dent in the world economy. The real world activity followed by the companies suffered tremendous losses during this period and it is natural that their IT budgets would get squeezed or at least differed till the situation normalizes. Thus, though IT companies made temporary profits in the pandemic period, ultimately they have to follow the fortune of brick and mortal economy. If there are not enough IT projects in the market, the job cuts are inevitable, isn't it ?

The core activity in the real world economy is undoubtedly infrastructure development and the iron & steel industry is positioned exactly in the center of this activity, assuming the most important position. Our industry not only imparts strength to the building or any structure, but to the whole economic activity all over. Thus strengthening of this core activity will ultimately impact positively on all the stakeholders of the economy including the IT sector. After all, a healthy, sustainable economy model will have the right amount of emphasis on every aspect of it, agriculture, industry (meaning brick and mortal) and the services (including IT & ITES).

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Government to incentivise ore processing technologies

Haresh Melwani, B E (elect)

The mineral and mining sector is playing an important role for India's development agenda going forward as the country aims at a multi-fold growth in GDP.

The government aims to double the sector's contribution to GDP to five per cent by 2030 from 2-2.5 per cent now while emphasising on productivity with sustainability, greater use of mechanisation and digitisation.

The sector contributes 2-2.5 per cent of GDP and supports 1.1 crore employment. The industry captains also stated that critical minerals are important for India to derisk itself from dependence on imports for new-age technology products.

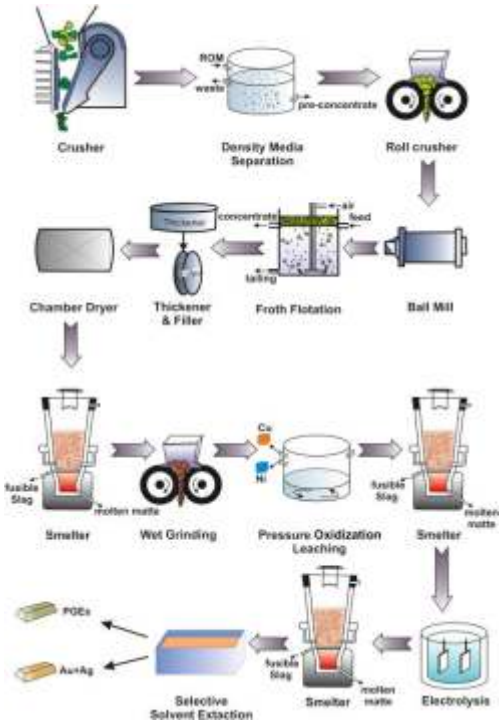
India's mining sector contribution to GDP needs to push beyond 2.5 per cent otherwise It will be difficult for the country to meet the aspirations of becoming he 5-trillion economy by 2030. It serves various sectors of the Indian economy including energy security, electronics, mobility, defence among others, it will be difficult to meet the projected growth.

Looking at India's mining and mineral important growth enabler for the Indian Economy, Mr D A Chandekar, Editor & CEO of Steelworld had an exclusive one to one interview with Haresh Melwani, B E (elect) to understand the present present status of the mining industry, various bottlenecks, government support for the policy frameworks, etc

Excerpts :

How is the present situation in India's mining and mineral sector ?

While Central Government is quite positive on developing the mining sector, in Major Minerals area, much work has to be simplified on the Environmental Aspects, clearances, etc.



Also, we do not have any incentive in the policy for discovery of strategic Minerals, which are very vital for the New

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As also there are no incentives for developing innovative technologies for raw ore processing to win maximum usable Minerals for downstream use.

What policy changes do you advocate for this core sector of economy ?

First of all recognize Mining as an Industry, since it is now mature and can grow under right Policy Conditions and being a long term Investment with High Risk Factor, the Investment Climate needs to acknowledge and allow for it.

How is the situation in Goa's mining sector ?

Goa Govt has recently auctioned 4 block, but my Investment is being directed into Benefication & Ore processing technologies, sin Goa has mostly lower grade Iron Ores of below 54% Fe content.

Goa is poised to regain its lost position in mining sector with the entry of new companies which hopefully will bring in latest technologies so the mining will have a smaller ecological footprint.

Where are the bottlenecks ? What needs to be done to bring the mining activity back on track ?

As is normal, while inviting in estment into High Risk Long Gestation Sector, many economic tools like accelerated depreciation, liberal labour regime, incentives for new and innovative exploration & processing technologies, etc should be brought into play to excite the young minds to work in this area.

With a good policy support, how can mining industry support the growth of national economy ?

Mining is Core to all economic growth, however recently it has acquired a bad reputation.

It has to be accepted that Mining is by nature destructive, but with modern technologies and good practices, the adverse impacts can be greatly reduced, and we just need to bring these best practices being followed all over the world into implementation by way of enhanced information exchange. Without Mining there cannot be any downstream activity. ■

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Export duty on steel, iron ore removed, industry hails the decision

These decisions were taken amidst's steep fall in October steel exports, as per Steel Ministry.

Steel industry on Saturday hailed withdrawal of export duty. The government on 18th November notified withdrawal effective from 19th November 2022. Duty was imposed in May this year.

As per the Finance Ministry notification, exports of iron ore lumps and fines with 'less than 58 per cent Fe' will attract NIL export duty. In the case of iron ore lumps and fines with more than '58 per cent Fe', the rate of duty will be 30 per cent. Exports of iron ore pellets will attract NIL export duty. Similarly, exports of pig iron and steel products (classified under Harmonised System or HS 7201, 7208, 7209, 7210, 7213, 7214, 7219, 7222 & 7227) will attract NIL export duty.

Steelworld Market Report

"The current measures will provide a fillip to the domestic steel industry and boost exports," Finance Ministry said in a statement. In May, the government had levied an export duty charges varying from 15 per cent for steel exports to around 50 per cent iron-ore (including concentrates). Steel prices in domestic markets have been

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falling ever since Further, import duty on Anthracite/PCI & coking coal and ferronickel will be 2.5 per cent, while it will be 5 per cent for coke and semi-coke. These were given exemption in May.

Duty withdrawal has been initiated at a time when India's steel exports dipped 66 per cent in October – the highest for this fiscal – to 360,000 tonnes on weakened global demand and higher prices compared with competitors. Exports in October 2021 were 1.05 million tonnes, according to

Steel Ministry data.

The Indian Steel Association in a tweet said, the move (reducing export duty on iron ore and removal of levy on stainless steel) "will go a long way in correcting India's balance of trade".

"Decision to withdraw the export duty immediately once the inflation numbers came to reasonable level shows the concern of the Government of India towards common man and the industry," Alok Sahay Secretary -General, Indian Steel Association, said.

According to Dilip Oommen, President, Indian Steel Association and, CEO, ArcelorMittal Nippon Steel India and Executive Vice President, ArcelorMittal, this will re-energise and further motivate the industry to move forward with full confidence to put steel sector towards an inclusive growth path.

Abhyuday Jindal, Managing Director, Jindal Stainless said withdrawal was need of the hour to enable domestic manufacturers to compete with global counterparts. "I am confident this will give a thrust to Make in India and Local to Global vision of the government," he said. At the same time, Seshagiri Rao, Joint MD, JSW Steel & Group CFO said,"It will be a big sentimental booster to revive domestic steel demand particularly when the global steel demand is on the steep decline."

Saket Dalmia, President, PHD Chamber of Commerce and Industry emphasized that since iron ore is a basic input for many industries across the countries, so, at this Juncture, this is a great opportunity to enhance our exports trajectory as there are no supply constraints in the domestic market. "We have a great opportunity to export iron ore and steel to various countries, a calibrated approach at this juncture becomes crucial to to support the domestic industry," he said.

However, a section of steel industry was disappointed on decisions related with coal. "Restoring import duties on coking coal and coke are kind of a tiny dark spot, especially when international prices are witnessing a rising trend Saket Dalmia, President, PHD Chamber of Commerce and Industry emphasized that since iron ore is a basic input for many industries across the countries, so, at this Juncture, this is a great opportunity to enhance our exports trajectory as there are no supply constraints in the domestic market. "We have a great opportunity to export iron ore and steel to various countries, a calibrated approach at this juncture becomes crucial to to support the domestic industry," he said.

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The Pathway to Steel Decarbonization

To effectively tackle the climate crisis and reach net-zero emissions by 2050, the United States must provide a pathway to accelerating the decarbonization of heavy industry while supporting high-quality, union jobs and a clean and equitable environment.

Modern society and its infrastructure would look vastly different without steel and cement. Glance around your office or house and notice how fundamental these basic materials are to daily life. Now, consider that future society requires changes in how these materials—and many more—are used and made in the face of the climate crisis.

According to the report released by the Intergovernmental Panel on Climate Change, global greenhouse gas (GHG) emissions must peak by 2025 to limit global warming to 1.5 degrees Celsius above preindustrial levels.[1] Every year of continued carbon pollution increases the peak temperatures that will be inflicted on the planet, threatening environmental degradation and social upheaval that can never be undone.

The industrial sector is currently responsible for nearly one-third of global carbon emissions and 30 percent of U.S. emissions.[2] By 2030, it will be the largest source of domestic emissions.[3] Just three industries—iron and steel, chemicals, and cement-making—account for roughly 55 percent of global industrial emissions, and the top 10 industries are responsible for roughly 90 percent of global industrial emissions.[4] Industry also supplies core materials and transformational technologies and supports

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high-quality, union jobs. Above all, most parts of modern-day society function because of heavy industry.

To tackle the climate crisis and reach net-zero emissions by 2050, it is imperative that the United States remove emissions from industrial operations. This is why decarbonization must be a priority.

Decarbonization is the process of significantly reducing or eliminating carbon dioxide and other GHG emissions that result from human activity. The pathway to decarbonization can vary sector by sector due to the differences in processes and materials in different industries but achieving decarbonization will require a clear vision for what the time frame looks like and what steps are necessary for each industry.

The Department of Energy recently released an "Industrial Decarbonization Roadmap"[5] that begins to establish this vision for the United States. For example, the steel industry will need to anticipate that the conversion to production processes using green-hydrogen, direct-reduced iron will more than likely require—in some parts of the world at least—utilization of gas-fired, direct-reduced iron or gas-based hydrogen as a requisite step on the pathway toward fully decarbonized steel.[6] For cement, the multiple stages of production will need to integrate multiple shifts, from changes in inputs to shifts toward cleaner fuels to electrification and incorporation of carbon capture. While pathways to industrial decarbonization will share some similarities across the board, each industry is likely to require unique approaches tailored to its specific processes.

Only through focusing on these unique pathways that incorporate various product and process improvements will the United States achieve the large reductions in industrial GHG emissions necessary to reach a decarbonized economy.

Regardless of variable pathways, however, all solutions for decarbonization should incorporate the following recommendations:

- People-focused stakeholder engagement
- Massive direct investments and incentives
- Ambitious administrative action
- Clear and connected trade policy

On August 16, 2022, President Joe Biden signed into law the Inflation Reduction Act, which provides, among other historic achievements, the ambitious administrative action needed to combat carbon pollution from industrial processes. The act provides significant investments in critical manufacturing industries—including core materials such as steel and cement—to support decarbonization efforts and strengthen U.S. industries' ability to compete globally. The Advanced Industrial Facilities Deployment Program invests nearly $6 billion to adopt transformational technologies to help heavy-manufacturing facilities reduce emissions. The transformational legislation also strengthens the ability of governments to "Buy Clean" by including $250 million in grants to help manufacturers produce and supply Environmental Product Declarations—a best-practice tool for capturing and communicating embodied emissions in final products such as concrete.[7] The critical extension of clean energy tax credits that support the build-out of solar and wind now includes a bonus 10 percent credit for the inclusion of American-made materials. The passage of the Inflation Reduction Act—taken in conjunction with the previously passed CHIPS and Science Act, the bipartisan Infrastructure Investment and Jobs Act, and President Biden's work to expand Buy America—establishes a true American industrial policy for the 21st century.

Greenhouse gas emissions by industry

Experts and advocates typically focus discussions surrounding emissions reductions and decarbonization interventions on the electric power, transportation, and buildings sectors. A wide variety of other fossil fuel combustion and process emissions are lumped together in a vague category of "industry" or with a complicated set of definitions.[8]

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Solutions are too often obscured behind the problematic "hard to decarbonize" label, but the diversity within industry simply means that some sectors will have clear and rapid pathways to decarbonization, while others will require additional time, investment, and innovation.

The picture becomes even cloudier when the international trade of goods is considered. One-quarter of all GHG emissions are caused by the manufacture of internationally traded products.[9] Additionally, national emissions inventories, including the one found on the website of the U.S. Environmental Protection Agency (EPA), only count emissions from industrial processes in the United States, ignoring the emissions that go into producing and shipping the $2.8 trillion in goods imported from other countries every year.[10] The emissions associated with these goods are often referred to as "embodied carbon" and are roughly two times the value of domestically produced goods.[11]

Breaking down these emissions into easier-to-understand segments is an important first step in planning appropriate decarbonization strategies. For example, the majority of emissions in most definitions of the industrial sector come from the fossil fuel refining, petrochemical, and plastics industries, where reductions in demand will be a major part of strategies. In contrast, the emissions that result from the production of cement, metals, and glass—durable products with limited alternatives—need solutions that can provide a clear path to eliminating emissions while allowing for continued production of these critical materials.

Industrial greenhouse gas emissions

In 2020, total gross U.S. GHG emissions were 5,981.4 million metric tons of carbon dioxide equivalent.[12] Fossil fuel combustion alone accounted for more than 92 percent of carbon dioxide emissions. Of that, 27.1 percent came from industrial carbon dioxide emissions in 2020. The GHGs emitted during industrial production are split into two categories: 1) direct emissions that are produced at the facility; and 2) indirect emissions that occur offsite but are associated with the facility's use of electricity.

Direct emissions are produced by burning fuel for power or heat, through chemical reactions, and from leaks from industrial processes or equipment. Most direct emissions come from the consumption of fossil fuels for energy,[13] and approximately 65.2 percent of these emissions result from direct fossil fuel combustion to produce steam and/or heat for industrial processes.[14] A smaller number of emissions, roughly one-third, comes from leaks from natural gas and petroleum systems and chemical reactions during the production of chemicals, iron and steel, and cement.

Heavy industries have precipitately been described as hard to decarbonize. No matter how well-intended, this broad label can obscure the variety of real solutions that are available and needed. While industrial decarbonization requires significant investments to

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advance existing infrastructure and technological innovation at scale, the baseline efforts to decarbonize—fuel and process switching, efficiency, and emissions capture—are not fundamentally different from the efforts already underway to decarbonize the electricity and transportation sectors.

representative of that dedication.

Moreover, decarbonizing heavy industry will only succeed if there is a comprehensive approach involving both the private and public sectors, one that attempts to accelerate research, development, and deployment of transformational technologies. These efforts

largely in changing feedstocks from natural-gas-based hydrogen to green hydrogen produced by electrolyzers using renewable electricity. Two sectors, steel and cement, are worthy of a deeper dive because they are among the largest emitters and, perhaps more importantly, are irreplaceable materials for many applications.

Finally, any discussion of

Obfuscation can also arise from too strong a focus on prioritizing minor efficiency gains. There must be dedication from industry and governments to complete or nearly complete decarbonization of the sector as a whole and chosen pathways must be representative of that dedication.

There must be dedication from industry and governments to complete or nearly complete decarbonization of the sector as a whole, and chosen pathways must be

will have similarities across industries, but the intricacies of each industry call for some industry-specific pathways to decarbonization.

For example, a large part of the discussion on decarbonizing plastics and petrochemicals should focus on reducing product use and full-scale substitution of the materials. For other industries, such as electronics and semiconductors, the focus should be on electrification. For still others, such as fertilizer, the solutions are

decarbonization of materials that are trade-exposed global commodities, such as steel, must be intertwined with requisite trade remedies. Restriction of emissions in one nation can lead to increased emissions in another—often referred to as carbon leakage. This typically occurs when domestic heavy polluters relocate to another country to escape strict emissions regulations, thus continuing to pollute in the more lax country and not reducing global GHG emissions. Strong pathways should include methods that support domestic

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decarbonized and decarbonizing materials, such as government procurement or a carbon border adjustment, not methods that shut down domestic manufacturing and increase reliance on dirty imports. Even for goods that are not trade exposed, such as cement, the United States should look for methods that, through export of technologies and policy harmonization, can be replicated in other countries, advancing global climate benefits.

Changing how steel is made

Eradicating greenhouse gas emissions from the steel industry will require multiple technological changes in how steel is currently made. This will require significant investment from the industry and public sector. Currently, steel is made via two main processes—blast furnace/basic oxygen furnace (BF/BOF) and electric arc furnace (EAF).[15] There are different methods and components within these two overarching processes that are required to achieve the proper chemical composition of the final product at the facility. For example, making basic rebar to hold up a bridge often requires a different process and can utilize different components than making advanced lightweight, high-strength steel that forms the body of a car. Currently, EAF steelmaking accounts for 71 percent of total steel produced in the United States.[16]

Before diving into the technical aspects of steelmaking and the potential pathways for decarbonization, consider the steelmaking process. In short, the steelmaking process is that by which iron ore is turned into iron and iron is turned into steel. Decarbonization means changing the source of electricity, changing the fossil-fuel-based feed stocks that are used to make iron and to turn that iron into steel, and integrating an emissions-free method of producing high heat or drastically lowering the heat altogether.

Electric arc furnace

The pathway to decarbonization differs depending on the method of steelmaking. For example, many pieces of rebar do not need to be a grade of steel that lacks significant impurities, which means that they can be produced with a lot of scrap steel. Therefore, rebar is often produced by EAF steelmaking, which has significantly less carbon intensity of BF/BOF steelmaking but uses a massive amount of electricity.[17] EAFs, therefore, require investments and innovation in emissions-free electricity production and storage capable of producing the necessary high heat in crude steelmaking. EAFs also currently utilize pig iron, which is often imported and produced in emissions-intensive processes. Eradication of dirty pig iron from EAF steelmaking, alongside integration of emissions-free electricity production, is critical to achieving significant decarbonization. But this only accounts for production of certain types of steel, such as rebar. Making steel with significantly different grades that do not include impurities—such as certain grades of lightweight, high-strength steel used in automobiles—currently requires the complex steelmaking process and will require additional steps toward decarbonization.

Blast furnace and basic oxygen furnace

The primary complex steelmaking process can be condensed into four key steps: 1) raw material preparation, including refining the iron ore into pellets and the coal into coke and/or gathering the scrap steel; 2) iron making, or chemically reducing the iron ore in either a blast furnace or through a direct reduction process that requires introducing carbon and carbon monoxide to coal, oil, or natural gas to create pig iron or sponge iron; 3) steelmaking, or running the pig iron in a basic oxygen furnace or an electric arc furnace; and 4) casting, rolling, and finishing processes to convert the crude steel into the final steel products desired.

Pathways to decarbonization

For the United States to achieve deep decarbonization goals—and still provide steel that is used in everything from building materials to automobiles to pots and pans—it will need to integrate or adopt the following

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methods:

- Green-hydrogen, direct-reduced iron (DRI): In the iron-reducing process in DRI ironmaking, hydrogen—preferably green hydrogen—can be used to replace natural gas. Green hydrogen[18] is produced by the process of electrolysis powered by renewable energy sources.[19] This results in direct-reduced iron, also referred to as sponge iron, which is then melted via electric current in an EAF and turned into crude steel. Save for minimal process emissions and potential hydrogen leaks, the production of crude steel in this manner is effectively free of carbon emissions. Rolling and finishing processes will also need to switch to decarbonized fuels to complete the deep decarbonization process.

- Using electricity: Perhaps the most innovative processes in the pilot stage are two distinct efforts that use electricity in very different ways to achieve ironmaking completely without fossil fuels. The first involves the effort to directly reduce and melt iron ore with electricity, referred to as molten oxide electrolysis. If the electricity is produced using renewable energy, then this process eradicates all steps in the crude steelmaking process that involve fossil fuels. Boston Metal is currently piloting this technology and claims it will be able to produce commercially available steel by the second half of this decade.[21]

- Carbon capture utilization and storage (CCUS): Capturing carbon dioxide waste streams for BF/BOF steelmaking can achieve significant emissions reductions, though not full decarbonization, while still utilizing steelmaking processes that produce the highest-grade steel—an area where scrap-based EAF production currently struggles. ArcelorMittal has invested in this process in a few of its facilities in Europe, notably its Catalyst project in Belgium,[23] where waste carbon will be utilized and turned into fuel. Carbon capture will need to prove its economic viability for the long term, especially on a material as trade exposed as steel.

Ideally, decarbonizing steel would occur through electrification powered by renewable energy. However, unlike the transportation sector—where direct electrification is both technologically feasible now and economically advantageous—electrifying the industrial sector has technological and economic barriers that make it the most difficult sector to fully electrify. Although carbon capture is not a silver bullet for addressing decarbonization in all sectors, in the case of cement and steel production, it currently offers a scalable alternative for existing production to decarbonize processes in the short term.

The jobs impact of decarbonizing steel

The pathways to decarbonizing steel and cement-making will affect labor forces and front-line communities. It is essential that any innovations aimed at achieving net-zero emissions in the industrial sector meet the needs of diverse stakeholders and provide benefits to these communities. In 2022, the U.S. steel and iron industry are estimated to employ nearly 131,000 individuals,[35] and cement manufacturing is projected to have employed nearly 219,000 people. This only considers direct employment, and durable manufacturing such as these two industries is known to support many indirect jobs, upward of eight times as many.

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India turns net importer of steel for the second consecutive month in October 2022

India turned a net importer of steel for the second time in four months in October, while exports plummeted to a more-than-three-year low.

Imports of finished steel last month rose to the highest since October 2019 at 593,000t, and were higher by 19pc on the month and 57pc against the previous year, provisional data from the steel ministry's joint plant committee (JPC) show. Finished steel comprises alloyed and non-alloyed steel.

India become a net importer of steel in July for the first time since January 2021.

Imports have picked up in recent months as global prices are at a discount to domestic prices. Most imports to the country in April-September were recorded from South Korea, China, Japan and Russia.

Meanwhile, finished steel exports in October touched their lowest since June 2019 at 360,000t, data shows. Shipments plunged 66pc on the year and 38pc on the month.

Lower price realisations in the export market, coupled with weaker global demand and competitive offers amid the 15pc export tax kept Indian exports limited last month.

Production of finished steel held flat on the year and increased by 2pc on the month at 9.85mn t last month, while consumption increased by 11pc against the previous year and 7pc on the month to 10.1mn t.

Crude steel production in October rose by 0.6pc on the year and was up by 3.7pc on the month at 10.2mn t. Hot metal production rose by 2.6pc on the year at 6.57mn t, while pig iron output rose by 14pc to 483,000t.

Steel industry reports rise in domestic demand in Apr-Oct

India's steel production and consumption grew 6.4% and 11.4%, respectively, year-on year (YoY) during the first seven months of FY23 (April to October), CareEdge Research said in a report.

"The production and consumption growth rate to be around 3-5% and 9-10%, respectively in FY23," the report said.

The rating agency estimates that the government's thrust towards infrastructure projects, a pick-up in construction and real estate activity as well as healthy demand from the automobile sector augur well for steel demand.

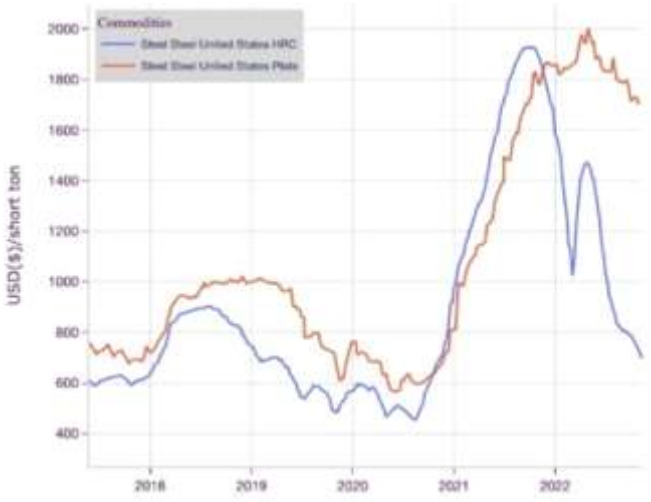
It added that the geopolitical tensions, a fall in iron ore prices and weak international demand continue to keep steel prices and realisations under pressure. Domestic prices are expected to remain subdued in the near term, while strong demand would provide some respite amid subdued exports.

"India is expected to witness a decline of about 50-55% in exports in FY23 because of the export duty announcement on a range of finished steel products made by the government in May 2022," the report stated.

"The domestic steel demand growth will be strong at 9-10% in FY23, due to the government's infrastructure push and increased investments in real estate and construction sectors amid an overall economic rebound. In addition to this, lower raw material prices (on account of increase in export duty on iron ore from 30% to 50% in May 2022) will also support steel production in India, though steel prices will continue to remain moderate. The operating profitability margins of the steel players will see a contraction in FY23 from the peak of FY22, on account of moderation in realizations despite relatively lower raw material costs", Tanvi Shah, Director, CareEdge Advisory & Research, said.

Steel Prices face further downward pressure as extra supply looms

The Raw Steels Monthly Metals Index (MMI) fell by 5.08% from October to November. A number of factors played into steel prices dropping.



After U.S. steel prices appeared to flatten, the descent for hot rolled coil, cold rolled coil, and hot dipped galvanized prices accelerated throughout October. Hot rolled coil prices now sit at their lowest level since November 2020. Plate prices, however, remain sideways, experiencing only modest declines throughout October.

American steel giant Nucor announced no change in discrete plate prices for December, meaning they will hold at $1,620/st. This marks the second consecutive month that Nucor kept prices flat after the company lowered them by $120/st in mid-September.

As flat rolled steel prices remain in free fall, plate prices continue to diverge from the larger trend. Since plate prices peaked nearly seven months ago, they have so far declined only 14.76%. For comparison, HRC prices fell a whopping 52.69% during that same period.

For months, buyers have complained about the widening spread between the two commodities. Until HRC prices peaked in October 2021, plate prices averaged around $107/st over HRC. However, that average has since ballooned to almost $600/st, with the current spread

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sitting at an all-time high of $1,014/st.

New Brandenburg Mill to Test Sideways Plate Trend

The sideways trend will face its next major threat as new capacity comes online. Indeed, operations at Nucor's Brandenburg, Kentucky plate mill officially began on October 20. At full capacity, the mill can produce up to 1.2 million short tons per year. That said, operations remain in their early stages, and it is still unclear when the mill will reach maximum production.

According to the company, the mill will primarily supply the renewable energy sector, providing plates for solar and wind energy projects. Nonetheless, as the mill begins to add supply to the plate market, the sideways price trend will face increasing downside pressure. Thus far, steel prices have resisted any meaningful decline. However, this new mill could prove the tipping point.

New steel coalition seeks global emissions standard

An international group of leading steel manufacturers, including Nucor, Steel Dynamics, and CELSA Group, has formed a coalition to urge the United States and European Union to adopt a global emission standard that incentivizes steelmakers to use the cleanest steel production process available.

The new coalition – the Global Steel Climate Council (GSCC) – supports a global standard that accelerates the transition to low-emission steel and recognizes the potential of the recycled, circular steel model to reduce carbon emissions.

"We have the technology to reduce carbon emissions in steel production by 70% today," said Leon Topalian, chair, president, and CEO of Nucor Corporation, a founding member of the Council. "The global industry needs to build on the innovation that has already led to cleaner steel production in the United States because the green and digital economies around the world are going to be built with steel, and the steel they are built with matters."

"This new standard will accelerate the actual reduction of greenhouse gas emissions and provide key decisionmakers with accurate data to make informed decisions."
Mark D. Millett, chairman, president, and CEO of Steel Dynamics, chairman of the Steel Manufacturers Association

"Steel is essential for our economies, including the world's essential infrastructure. This new standard will accelerate the actual reduction of greenhouse gas emissions and provide key decisionmakers with accurate data to make informed decisions," said Mark D. Millett, chairman, president, and CEO of Steel Dynamics, chairman of the Steel Manufacturers Association, and a founding member of the Council.

The primary focus of the GSCC is to establish a standard, focusing on the following guiding principles:

- Reducing GHG emissions from the global steel industry.
- Establishing a standard that is technology/production method agnostic.
- Establishing a standard that has a system boundary that includes Scope 1, 2 and 3 emissions.
- Establishing a standard that aligns with a science-based glide path to achieve a 1.5 degree scenario by the year 2050.
- Providing relevant information on sustainable steelmaking to appropriate decision makers.

"The GSCC single standard will encourage all producers to reduce their carbon emissions and create a level playing field for all manufacturers."
Philip K. Bell, president of the Steel Manufacturers Association

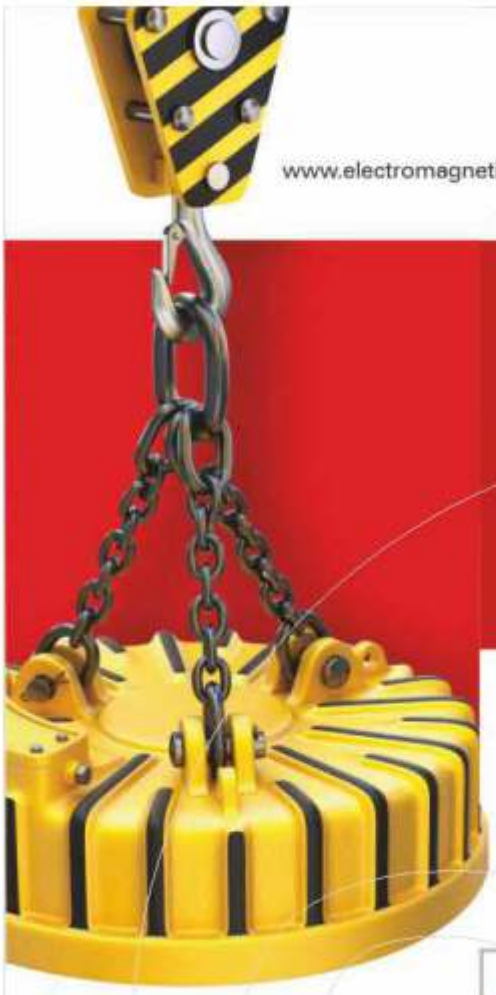
"The GSCC single standard will encourage all producers to reduce their carbon emissions and create a level playing field for all manufacturers. The U.S.-EU negotiations should not create a double standard and a slippery slope toward a dirtier environment. We can do better," said Philip K. Bell, president of the Steel Manufacturers Association and founding member of the Council.

China October steel output drops 8.3% on month

The world's top steelmaking country produced 79.76 million tonnes of the metal last month, according to data from the National Bureau of Statistics, down from 86.95 million tonnes in September. China's October steel output fell 8.3% from the previous month, official data shwed on Tuesday, as ongoing COVID curbs and a deepening crisis in the country's property sector hit demand, leading some mills to start maintenance outages early.
The world's top steelmaking country produced 79.76 million tonnes of the metal last month, according to data from the National Bureau of Statistics, down from 86.95 million tonnes in September.
https://infra.economictimes.indiatimes.com/news/construction/china-october-steel-output-drops-8-3-on-month/95555674

Steel Ministry hosts Conference of Ministers of Industry, Mines, State Govt

Taking forward the “whole of Government” approach, Ministry of Steel, Government of India, hosted a “Conference of Ministers of Industry/Mines/Steel of State Governments “in New Delhi, today to provide the State and Central Governments an opportunity to deliberate on matters related to issues in mining of raw material, growth, and future challenges of steel sector.
In his inaugural remarks, Shri Jyotiraditya M. Scindia, Union Minister of Steel and Civil Aviation highlighted the



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achievements made by India's steel sector and observed that the sector has grown from strength to strength in last 8 years. Minister urged the states to take all-out efforts towards increasing rural consumption of steel, utilising all grades of iron ore in steel-making, timely auctions of mines, formalisation of recycling industry and bringing to scrappage the End-of-Life Vehicles.

These measures will future-proof the sector and make steel sector a sustainable one. Prime Minister's emphasis on producing green steel is especially crucial and appropriate steps are necessary to move towards that from now on. The Government believes in Zero waste-Zero harm policy and gradual decarbonisation is essential for steel sector, the Minister added.

Secretary Steel, Shri Sanjay Singh, enlightened the major trends in growth of the steel sector, way forward and assistance required from the States. Recalling PM's vision for the steel sector, he suggested that the steel sector will have to focus on development and deployment of environment-friendly technologies, effective partnership between the Government and the industry.

State Ministers, Shri Nand Gopal Gupta 'Nandi', Minister of Industrial Development and Export Promotion, Government of Uttar Pradesh, Shri Prafulla Kumar Mallick, Minister for Industry and Energy, Govt of Odisha, Shri Rajvardhan Singh Dattigaon, Minister for Industry Policy and Investment Promotion, Govt of Madhya Pradesh participated in the Conference. Thanking the Minister for organising the Conference, they assured cooperation with the Union Government.

Chairpersons/CMDs of PSUs under Ministry of Steel, representatives from the State Governments of Andhra Pradesh, Karnataka, Chhattisgarh, Gujarat, West Bengal, Goa participated in the Conference, Union Ministries of Mines, Environment, Forests & Climate Change, Coal, NITI Aayog participated in the Conference and placed their views on growth and development of steel sector in India

Minister thanked all the participants and stressed the need for all the stakeholders to find a common platform to overcome challenges in the steel sector for its assured growth.

ArcelorMittal Nippon Steel India unveils 'Reimagineering' Campaign

ArcelorMittal Nippon Steel India (AM/NS India) – a joint venture between ArcelorMittal and Nippon Steel, two of the world's leading steelmakers – today launched its first corporate brand campaign, titled 'Reimagineering'. 'Reimagineering', a fusion of the words reimagination and engineering – key levers that will shape India's growth and development over the coming decades. The campaign aims to promote the AM/NS India brand as being aligned with India's ambitions and serves as a strategic business asset to the company. The brand is accompanied by a new positioning statement: 'Smarter Steels, Brighter Futures'.

The theme and focus of the multi-channel campaign were determined following comprehensive research with internal and external AM/NS India stakeholders, conducted by a leading global branding agency. The new brand campaign and positioning statement also draw on the unique attributes of AM/NS India's parent companies, which are globally recognised for their leadership in research and development, embrace of new technologies, and efforts to decarbonise the steel industry.

Mr. DilipOommen, Chief Executive Officer, ArcelorMittal Nippon Steel India (AM/NS India), said, “As a relatively new entrant to the Indian steel industry, this campaign reflects our energy and excitement about the potential we see for our sector. AM/NS India is young and dynamic. It has a sharp focus on business planning and execution. Above all, it is a responsible steelmaker, committed to safe, sustainable, and ethical business practices, and creating value for our communities, our employees, our customers and India. I am delighted to see these qualities embodied so aptly in our Reimagineering campaign.”

The advertisements have been created by a leading agency Creativeland Asia (CLA), showcasing AM/NS India's vision for futuristic steels, aligning with India's growth strategy. The campaign will be rolled out through a 360-degree media approach which includes television, print, digital media, Out-of-home (OOH) advertising, radio, etc.

BMW Group secures CO2-reduced steel supplies for global production network

New supply agreements in US and China; lower CO2 emissions for over one- third of global steel purchasing volume; focus on innovative technologies, renewable energies and circular economy.

In what is now a trend with global automakers, the BMW Group is significantly reducing the carbon footprint of its steel sourcing and systematically pursuing its climate goals for the supplier network. Following initial contracts with European suppliers, the BMW Group has now concluded further agreements for the supply of CO2-reduced steel in the US and China.

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"Steel is one of the main sources of CO2 emissions in our supply chain. That is why we are comprehensively reorganising our steel portfolio – so we can supply our global production network with over one third of CO2-reduced steel from 2026. This will reduce the carbon footprint of our supply chain by 900,000 tonnes per year, while at the same time driving the transformation of the steel industry," said Joachim Post, member of the Board of Management of BMW AG responsible for Purchasing and Supplier Network.

In the medium term, the BMW Group will increase CO2 savings through agreements with additional steel suppliers and thus consistently drive forward the decarbonisation of its supplier network. Around 20 percent of supply chain CO2 emissions for a mid-sized fully-electric vehicle are attributable to steel – which comes in third, after battery cells and aluminium. With its versatile properties, steel is nevertheless one of the key materials for automotive manufacturing and will be no less important for future vehicle concepts and generations.

Focus on renewable energies in the US and Mexico

For the Americas region, agreements have already been reached with domestic steel producers Steel Dynamics (SDI) and Big River Steel, a U. S. Steel facility, to use renewable energy sources in their local steel production. In the US and Mexico, about half of the BMW Group's flat steel requirements are supplied by the electric arc furnace (EAF) steelmaking process, which relies on electrical energy to melt down iron and steel scrap.

Steel cos post 75-90% decline in EBITDA

What goes up also comes down. That is the nature of law. Indian steel companies aptly followed nature's rule and the scintillating performance that they staged in the past 2 years has reversed. Indian steel companies reported worse than expected second quarter performance as aggressive monetary tightening by central banks despite slowing global GDP along with China going into decline, weighed heavily on these companies.

The slowdown in performance is worrisome as steel was

one of the biggest forex earning commodities for India in the lJast fiscal, a country that otherwise relies heavily on the import of commodities right from cooking oil to coking coal, to crude, and gold. The ballooning trade deficit is another matter of concern for the Indian government as the country's merchandise trade deficit has reached $148.46 billion in the first half of the fiscal while the rupee has lost approx 10% against the dollar in the calendar year.

Shining metal losing sheen

For the past two years, steel companies were the darlings of the street. But the fortune has turned its back and is evident from the massive fall of 75% to 90% in the Earnings before Interest, Taxes, Depreciation, and Amortisation (EBITDA) per tonne of steel companies within a time span of 15 months. The EBITDA per tonne of these companies declined primarily due to steep fall in steel prices. Prices of steel products dropped between ₹12,000 per tonne and ₹13,000 per tonne on quarter-on-quarter basis (QoQ). Also, lower export realisation due to export duty played a role.

EBITDA per tonne is the best gauge for the operational and financial performance of any mining company as the number reflects performance irrespective of the capital structure of these companies.

India's largest steel manufacturer Tata Steel with a production capacity of 34 million tonnes per annum saw its reported consolidated EBITDA per tonne decline from ₹22,779 in Q1 FY22 (April-June 2021) to ₹8,673 in Q2 FY23 (July-Sep 2022), a 62% fall. In the same period, its standalone EBITDA per tonne declined by 70% from ₹33,568 to ₹9,986.

Tata Steel's consolidated operation includes 21 million tonnes per annum steel production capacity in India, 12 million tonnes per annum in Europe (7 million tonnes in Netherland and 5 million tonnes in the U.K.), and 1 million tonne in South East Asia. The Indian arm of Tata Steel produced 19 million tonnes of steel in FY 22.

India's second largest steel manufacturer, JSW Steel with 28.5 million tonnes per annum of production capacity saw its consolidated EBITDA per tonne declining around 90% from ₹29,000 crore in Q1 FY22 to ₹3,000 crore in Q2 FY23. JSW consolidated numbers include steel manufacturing operations in the U.S. JSW Steel runs 1.5 million tonnes of the upstream unit in the U.S. while Indian production

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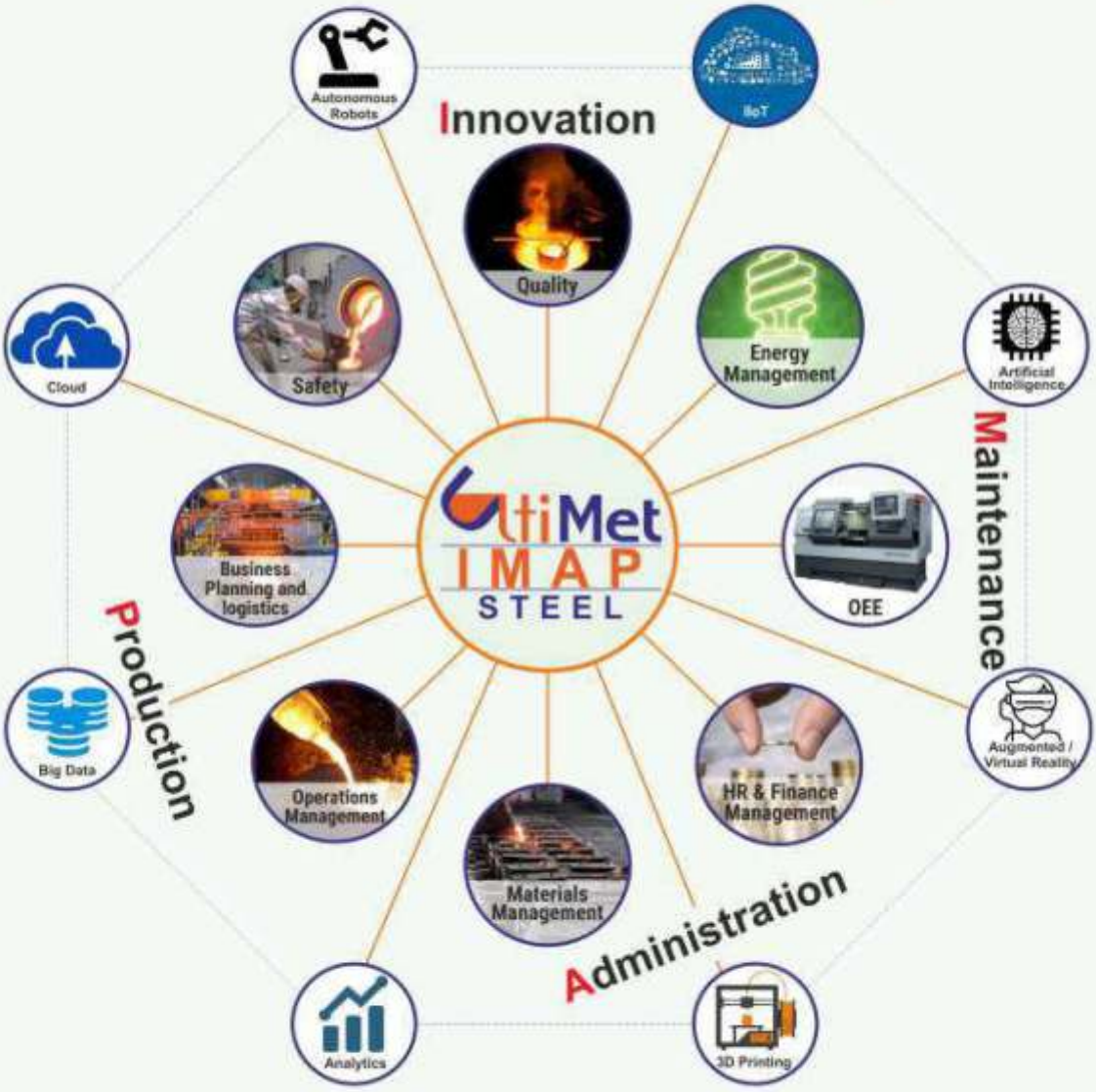

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capacity stands at 27 million tonnes. In FY22, JSW produced 19 million tonnes of steel of which it exported 5 million tonnes of steel worth $5.3 billion accounting for approximately 25% of India's forex earnings on the export of steel and steel products.

India's third largest private steel manufacturer, Jindal Steel and Power Limited (JSPL) does not reveal EBITDA per tonne numbers but market based sources reveal that the company's consolidated EBITDA per tonne declined approximately 75% in the last 15 months. JSPL's adjusted consolidated EBITDA per tonne declined to ₹7,000 in Q2 FY23 from ₹28,000 in Q1 FY22. JSPL's consolidated operation includes mining operations in Australia, Mozambique, and Africa. In the last fiscal, the company produced 7.64 million tonnes of steel.

In the last fiscal (FY22), India exported 13.5 million tonnes of finished steel but due to the global slowdown and government taxation policies on steel, export has dipped drastically. In the first half of the current fiscal, India's steel exports dipped nearly 54% to 3.6 million tonnes viz a viz 7.8 million tonnes in the last fiscal.

Jindal Steel & Power Q2 Results: Profit nearly halves on high input costs

"The steel industry has been in a death spiral," Bimlendra Jha, the newly appointed managing director of JSPL told ET. He was referring to the sharp and continuous dip in steel prices that has followed after the alloy reached historically high prices in April this year

Jindal Steel& Power reported a sharp decline in its consolidated profit for the July-September quarter on account of high input costs even as steel prices sharply corrected and a one-off provision related to a loan extended to its Mauritius subsidiary.

Jindal Steel and Power expects its net debt to remain at current levels, if not lower, due to investments such as coal block auction payments. The company has room to increase borrowings 1.5 times, but doesn't plan to do so in this financial year, said managing director Bimlendra Jha. The company's net debt on a consolidated level stood at Rs 7,054 crore at the end of September.

Jha sounded cautious on the 15:15:50 model, where the company plans to achieve an operating profit (EBIDTA) of Rs 15,000 crore; net debt of Rs 15,000 crore and a gross turnover of Rs 50,000 crore. The new strategy is to do better than before, Jha told Moneycontrol in an interview. However, he didn't mention any numbers.

"We have been able to do a gross revenue of Rs 30,272 crore (consolidated H1). Export volumes reported a drop. But realisations should be better, and even though we were able to sell 2.01 million tonnes of steel in this quarter (standalone), we reduced our inventory substantially" as mentioned by Jha. He further mentioned that the company reduced their inventories, which were based on a higher price, a hit was taken on the EBITDA front of roughly Rs 600 crore, which is about Rs 3,000 per tonne, by liquidating inventory. This is where the financing gets a bit complex.

Vedanta to re-assess future in steel business

The Bokaro-based company, later renamed ESL Steel Ltd, is doubling capacity to 3 million tonnes by 2023.

ining giant Vedanta has undertaken an evaluation of its steel business which may also include a potential exit from the sector.

The company, one of the largest producers of zinc and aluminium in the world, does not want to remain a fringe player in the steel business which is dominated by big boys such as the Tatas, the Jindals and the Mittals.

The evaluation of the future of the steel business also includes growing the capacity in multiples from the present level to be a "force to reckon with" or potentially exit from this segment.

"The question is going on in the mind," Sunil Duggal, group CEO of Vedanta Ltd, said when asked by The Telegraph if the company wants to remain in the business or not.

Vedanta entered the steel sector with the acquisition of Electrosteel Steel Ltd from the insolvency court in 2018, outbidding Tata Steel. It marked one of the first successful resolutions of 12 non-performing assets which were sent for corporate insolvency resolution process by the RBI.

The Bokaro-based company, later renamed ESL Steel Ltd, is doubling capacity to 3 million tonnes by 2023. The unit produces ductile iron pipe, TMT and wire rod, among others. Vedanta also has a 1 million tonne pig iron unit in Goa where the company has iron ore mines under the Sesa division.

"If we want to be in the steel business, we should be a force to reckon with. The 4-5 million tonnes are not a small capacity either but ultimately we would like to convert Electrosteel into a mega location of 10 mt. We also have a site in Bellary. We may like to put up a plant there. So we may be on a path of 10-20 mt steel player in the next 3-5 years if we want to stay," Duggal explained the choices before Vedanta.

There are multiple factors which may help the company remain in the sector. It has a few metallurgical coke plants, ferroalloy units and iron ore mines completing the steel value chain. Duggal, however, was clear about the roadmap of the iron ore business which Vedanta will take to 40-50 million tonnes in the next 2-3 years. It has mines in Odisha, Karnataka and Liberia.

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Higher passenger vehicles sold reported in October 2022 boosted by festive sales: SIAM

The Society of Indian Automobile Manufacturers (SIAM) in its latest report has that there was significant growth across all passenger vehicles following the domestic festive season. As per the latest data, a total of 291,113 passenger vehicles were sold in October, which is almost 60,000 units more than the October 2021 numbers. But it is less than the September 2022 figures, where 307,389 passenger vehicles were sold. Earlier this year, sales were affected due to a global shortage of semiconductors, which had affected automakers across all segments forcing them to cut down production. Besides, the monthly sales and export in 2022 have shown significant growth despite the challenges. The overall picture of the Indian automotive manufacturers is positive after the pandemic period.

Total vehicles sold in the Indian market were 20,93,378 units. This indicates an increase in total vehicle retail in India by 6,75,652 units which translates to 47.62 percent year-on-year increase in total vehicle retail. The figures for total vehicles retailed in the Indian market for October 2021 stood at 14,18,726 units.

As per the SIAM latest data reported that the total production of Passenger Vehicles*, Three Wheelers, Two Wheelers, and Quadri cycle in the month of October 2022 was 2,191,090 units. Domestic sales includes Passenger Vehicles 291,113 units, Three-wheeler sales were 54,154 units and Two-wheeler sales were 1,577,694 units reported in October 2022.

For the month of October 2022 the total two-wheelers sold in the Indian market were 1,577,694units. This indicates an increase in two-wheelers retail in India by 5,31,320 units which translates to 51.09 percent year-on-year increase in total two-wheelers retail. For the month of October 2022 the total commercial vehicles sold in the Indian market were 74,443 units. This indicates an increase in total commercial vehicle retail in India by 15,080 units which translates to 25.40 percent year-on-year increase in total commercial vehicle retail. The figures for total commercial vehicles retailed in the Indian market for October 2021 stood at 59,363 units.

Commenting on October sales, Vinod Aggarwal, President, SIAM said, "Good market sentiments coupled with festive boost, resulted in higher sales in October, especially for Passenger Vehicles. Higher inflation and rising interest rates have impacted the rural market more, thereby returning marginal growth of the Two-Wheeler segment. Passenger Three-Wheelers is seeing better off-take due to increased shared mobility in semi-urban and urbanareas."

Commenting on Industry performance, Rajesh Menon, Director General, SIAM said,"Though the Passenger Vehicles have reported highest ever domestic sales in April to October period, Sales of Two-Wheelers in these 7 months of 2022 is still lower than that of 2016, whilefor Three-Wheelers it is lower than 2010. Similarly, exports of Passenger Vehicles continued to grow, while there has been a drop in exports of both Two and Three-Wheelers."

While commenting on how October'22 and Festive Period performed, FADA President, Manish Raj Singhania said, "Auto Retail for the month of October'22 saw an overall growth of 48%. With most of the month under festive period, the sentiments were extremely positive across all categories of Dealership outlets".

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SIAM						
Segment wise Comparative Production, Domestic Sales & Exports data for the month of October 2022						
						(Number of Vehicles)
Category	**Production**		**Domestic Sales**		**Exports**	
Segment/Subsegment	**October**		**October**		**October**	
	2021	**2022**	**2021**	**2022**	**2021**	**2022**
Passenger Vehicles (PVs)*						
Passenger Cars	126,001	170,622	103,829	140,926	26,639	33,045
Utility Vehicles (UVs)	120,544	151,457	112,112	141,254	12,719	14,614
Vans	10,634	8,910	10,412	8,933	308	1
Total Passenger Vehicles (PVs)	**257,179**	**330,989**	**226,353**	**291,113**	**39,666**	**47,660**
Three Wheelers						
Passenger Carrier	61,198	73,253	21,408	41,246	41,844	34,038
Goods Carrier	10,453	9,936	9,048	10,326	852	217
E-Rickshaw	1,252	2,629	1,322	2,323	-	-
E-Cart	29	293	34	259	-	-
Total Three Wheelers	**72,932**	**86,111**	**31,812**	**54,154**	**42,696**	**34,255**
Two Wheelers						
Scooter/ Scooterettee	481,616	514,292	479,459	512,761	38,619	30,151
Motorcycle/Step-Throughs	1,349,273	1,217,910	1,017,874	1,020,295	334,781	256,934
Mopeds	64,438	41,655	55,356	44,638	672	234
Total Two Wheelers	**1,895,327**	**1,773,857**	**1,552,689**	**1,577,694**	**374,072**	**287,319**
Quadricycle	269	133	2	71	264	84
Grand Total	**2,225,707**	**2,191,090**	**1,810,856**	**1,923,032**	**456,698**	**369,318**
* BMW, Mercedes, Tata Motors and Volvo Auto data is not available						
Society of Indian Automobile Manufacturers (11/11/2022)						

SIAM						
Summary Report: Cumulative Production, Domestic Sales & Exports data for the period of April-October 2022						
						Report I
						(Number of Vehicles)
Category	**Production**		**Domestic Sales**		**Exports**	
Segment/Subsegment	**April-October**		**April-October**		**April-October**	
	2021-22	**2022-23**	**2021-22**	**2022-23**	**2021-22**	**2022-23**
Passenger Vehicles (PVs)*						
Passenger Cars	987,848	1,261,022	784,959	1,020,880	208,888	234,745
Utility Vehicles (UVs)	884,238	1,262,751	765,803	1,123,710	114,219	133,177
Vans	64,678	83,617	63,305	83,263	1,193	591
Total Passenger Vehicles (PVs)	**1,936,764**	**2,607,390**	**1,614,067**	**2,227,853**	**324,300**	**368,513**
Three Wheelers						
Passenger Carrier	373,243	424,313	81,694	182,804	295,202	243,971
Goods Carrier	48,590	56,180	41,114	53,323	5,506	2,410
E-Rickshaw	4,020	12,784	4,272	12,749	-	-
E-Cart	184	1,932	183	1,890	-	-
Total Three Wheelers	**426,037**	**495,209**	**127,263**	**250,766**	**300,708**	**246,381**
Two Wheelers						
Scooter/ Scooterettee	2,680,455	3,496,463	2,445,508	3,276,888	224,193	257,775
Motorcycle/Step-Throughs	7,646,846	8,497,931	5,369,358	6,427,012	2,387,679	2,132,607
Mopeds	303,980	264,100	287,915	272,258	7,534	1,782
Total Two Wheelers	**10,631,281**	**12,258,494**	**8,102,781**	**9,976,158**	**2,619,406**	**2,392,164**
Quadricycle	3,286	1,132	8	361	3,593	828
Grand Total	**12,997,368**	**15,362,225**	**9,844,119**	**12,455,138**	**3,248,007**	**3,007,886**
* BMW, Mercedes, Volvo Auto data is not available and Tata Motors data is available for Apr-Sep only						
Society of Indian Automobile Manufacturers (11/11/2022)						

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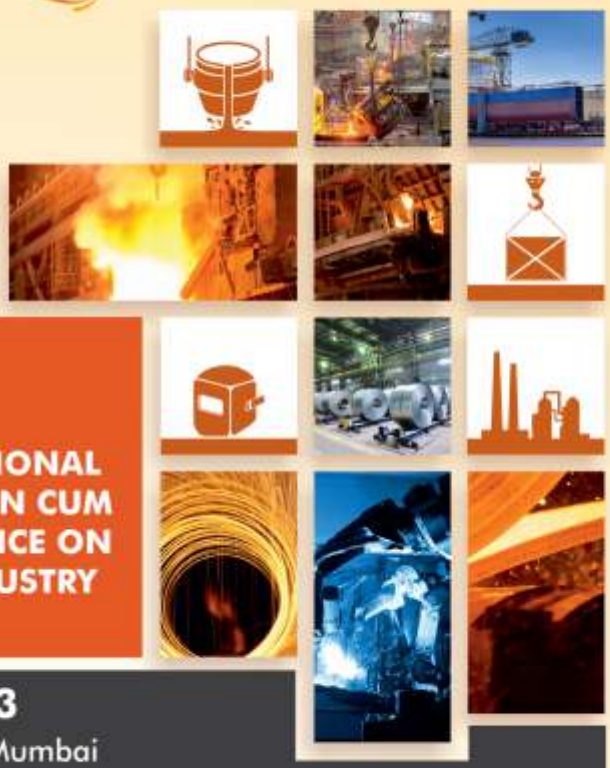
FICCI



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Schedule for the Webinars

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Date	Time	Subject
5th Dec	11:00 A.M.	Inauguration
	3:00 P.M.	Digitalization - New Driver for Metallurgical Industry
6th Dec	11:00 A.M.	Green steelmaking - How near, How far?
	3:00 P.M.	Future of steel projects in India
7th Dec	11:00 A.M.	Future of Foundries in India
8th Dec	11:00 A.M.	Aluminium Sector-Technology, Process & Applications
	3:00 P.M.	Future of Copper Business in India
9th Dec	11:00 A.M.	Recycling Industry – Present & Future
	3:00 P.M.	Emerging Trends in Indian Automobile Industry
10th Dec	11:00 A.M.	International Co-operation – Possibilities and Opportunities

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