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Business Analysis Report for October - 2021

1. Introduction

A Business Analysis Report for October'21 has been prepared which covers the business trends in international and domestic markets. Latest developments in domestic steel market and SAIL's competitors' activities have been captured. Item wise production levels of domestic steel majors and item wise details of India's steel trade have been captured. An attempt has been made to capture the overall domestic economic outlook. Trends in stock markets have been analysed.

In the international market, current status of major economies, steel price trends and other important trends in the steel market have been recorded.

A conclusion to the report attempts to highlight the emerging signals.

2. Domestic Economic Scenario

2. (A) Indian Economy

- **India's Prime Minister Narendra Modi** has launched the digital platform for the first ever National Infrastructure Master Plan through which the entire network of projects - from roads and railways to telecom networks and gas pipelines - until 2020, with plans up to 2024-25, will be laid out. Rs. 100-lakh-cr. PM Gati Shakti multi-modal connectivity plan will improve ease of doing business and unleash India's growth potential.

  The Plan targets to cut logistic costs, increase cargo handling capacity and reduce the turnaround time. It aims to lend more power and speed to projects by connecting all the departments concerned, on one platform. The infrastructure schemes of various Ministries and State Governments will be designed and executed with a common vision.

  India's economic growth over the next few years is likely to be driven by large-scale coordinated infrastructure initiatives like the Delhi Mumbai Industrial Corridor, Chennai Bangalore Industrial Corridor and the more recent East Coast Economic Corridor. Each of these schemes comprises over hundreds of projects involving development/upgrade of roads, railway linkages, ports, airports, industrial & logistics parks, utilities like power & water and residential & commercial infrastructure. If end-to-end supply chain logistics costs are to be brought down, it is imperative that all the involved agencies operate in a coordinated manner.

The GatiShakti platform will provide that information instantaneously, allowing for better coordination. The platform will require the 16 Ministries to upload data on their various projects.

- **Sitting on healthy cash reserves and aided by stronger** balance-sheets post Covid, India Inc. is looking to step up its capital expenditure and investment plans. Industry analysts say that a mix of factors such as accommodative monetary policy, lower interest rates, lower corporate tax rates and Government incentives such as Production-Linked Incentive (PLI) scheme, global liquidity and an upward commodities cycle, are fueling optimism among companies.

  Executives of big business groups confirmed that investments were on the rise following the abatement of the pandemic. Significant investments have been committed in recent months, betting on higher growth in an upbeat economy.

	FY21 (₹ Cr)	% Change Over FY20	FY19
Net Sales	94,07,305	-2.15	-2.78
PAT	6,50,972	82.70	22.66
Reserves	66,04,385	16.94	21.70
Capital WIP	8,57,654	6.84	0.69
Investments	86,78,756	28.48	38.75
Cash & Bank Balance	26,67,813	28.42	51.84

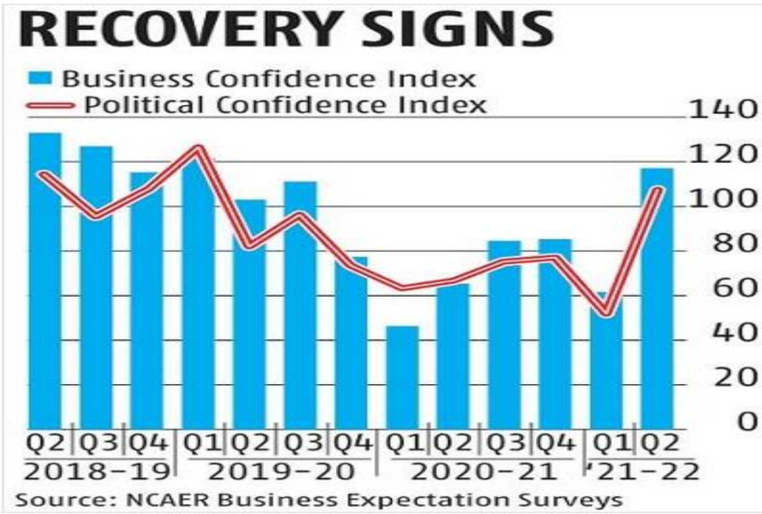
Note: Data for all listed cos Source: ETIG Database

  Listed Indian corporates reported record reserves and surplus of Rs. 66.04 lakh cr. as of March 31, 2021 up from Rs 56.48 lakh cr. last year. The aggregate value of investments of about 4000 listed companies were at an all-time high of Rs 86.78 lakh cr. in FY21 compared to Rs. 67.55 lakh cr. a year ago. These companies held nearly Rs. 26.68 lakh cr. in cash and bank balance, a record figure and posted more than Rs. 6.5 lakh cr. profits in FY21.

- **As the second wave of Covid-19 eased off,** business sentiment in the country hit an over two-year high in the September quarter (Q2) of the current financial year, according to a survey by NCAER.

  The NCAER Business Confidence Index (BCI) increased by about 80% to 117.4 in Q2'FY 22 from the year-ago quarter.

  The index showed improvement -- sequentially, year-on-year as well as compared with the pre-Covid period -- in all the four parameters. viz. : Overall economic conditions in the next six months, financial conditions in the next six months, present investment climate and present capacity utilisation. The recovery was broad-based across firm size, ownership, and industrial sectors. The index was also higher over these periods for the consumer durables, consumer non-durables, intermediate goods, capital goods and services industries.



- **Sentiment in the real estate industry** has turned optimistic and touched an all-time high during July-September'21 period and the outlook for the next six months also remained positive with the recovery in the Indian economy and rapid progress in vaccination, according to a joint report by Knight Frank, FICCI and Naredco. They have released their "Real Estate Sentiment Index Q3 2021" based on the survey of developers, banks, financial institutions and private equity players operating in the sector.

  As per the report, both the current and future sentiments of the real estate sector have improved across all parameters in the quarter, on account of economic recovery and waning of the second wave of the pandemic.

  In Q3' 2021, the Current Sentiment index score rose to 63 – the best ever, after the dismal score of 35 recorded in Q2' 2021. The Future Sentiment Index score rose from to 72 in Q3' 2021 from 56 in Q2' 2021 which was also the highest ever in the history of the Index.

  A score of above 50 indicates 'Optimism' in sentiments, a score of 50 means the sentiment is 'Same' or 'Neutral', while a score below 50 indicates 'Pessimism'.

  In Q2' 2021, sentiment was at the lowest which has turned around dramatically in a matter of mere 90 days to be one of the highest in Q3' 2021.

- **Indian Automobile Sector -**

Domestic Sales(No.)	**Sept.'21**	***% Change y-on-y***
Passenger vehicles	1,60,070	*(-)41.16%*
Commercial vehicles	NA	*NA*
Two wheelers	15,28,472	*(-)17.36%*
Three wheelers	29,185	*53.80%*
Total	**17,17,728**	***(-)19.75%***

(Source – SIAM)

- Indian automotive industry is yet to come out of woods. The industry is being affected by persistent shortage of semiconductors and rise in input costs. Many producers curtailed their production plans. Gap between demand and supply widened and it was sellers' market in September. Going forward, a positive recovery from second wave and hopes for a bumper festive season may provide momentum to sales in November.
- Sales of passenger vehicles were 1,60,070 in September'21 down by 41.16% y-on-y. Maruti Suzuki, the bellwether of the passenger vehicle industry, reported as much as a 57% YoY sales decline in September, on semiconductor shortage.
- Sales of two wheelers at 15,28,472 units in September'21 was down by 17.36% over the previous year.
- Sales of three wheelers at 29,185 units, was up by 53.80% in September'21.
- Total vehicle sales in Sept.'21 were 17,17,728 units, down by 19.75% over CPLY.

H1 passenger vehicle sales were still below the 2016-17 levels, that of two wheeler were below 2011-12 levels and that of three wheelers were still below 2000-01 levels.

- **India's external Merchandise Trade :**

	Sep.'21 *(US$ bn.)*	***% change over CPLY***	**(Apr.-Sep.)'21** *(US$ bn.)*	***% change over CPLY***
Exports	33.79	*22.63%*	197.89	*57.53%*
Imports	56.39	*84.77%*	276.02	*81.67%*
Trade Balance	(-)22.59	*(-)663.48%*	(-)78.13	*(-)196.91%*
Oil Imports	17.44	*199.27%*	72.99	*127.99%*
Non Oil imports	38.95	*57.75%*	203.03	*69.30%*

- India's merchandise trade deficit widened to a record US$ 22.59 billion in September, the highest in at least about 14 years.
- Led by petroleum products and engineering goods, India's merchandise exports in September rose by 22.63% y-on-y at US$ 33.79 bn. Recovery in the global economies across the world has led to continuous growth in exports.
- Imports grew at a faster pace of 84.77% at US$ 56.39 bn.
- Oil imports grew by 199.27% to US$ 17.44 bn. India's crude oil imports in September hit a five-month high as a pick up in economic activity and mobility led to higher fuel demand. Reliance Industries Ltd. imported nearly 12% more oil in September than in August.

  There has been a sharp jump in the prices of oil and thermal coal which has prompted concerns of higher inflation. UBS said that a US$ 10 per barrel increase in crude prices would widen India's Current Account Deficit by US$ 14 billion or 0.5% of GDP.
- Non oil imports grew by 57.75% to US$ 38.95 bn. in Sept.'21.

- **Growth in Infrastructure Sector Industries :**

(% change y-on-y)

Sector	Weight (%)	Sep.'21	Sep.'20	(Apr.-Sep.)'21-22	(Apr.-Sep.)'20-21
Coal	10.335	8.1%	21.0%	11.7%	(-)6.1%
Crude Oil	8.983	(-)1.7%	(-)6.0%	(-)2.9%	(-)6.1%
Natural Gas	6.876	27.5%	(-)10.6%	22.1%	(-)13.2%
Refinery Products	28.037	6.0%	(-)9.5%	11.2%	(-)16.3%
Fertilizers	2.627	0.02%	(-)0.3%	(-)1.3%	3.7%
Steel	17.916	3.0%	6.2%	35.0%	(-)25.2%
Cement	5.372	10.8%	(-)3.4%	37.7%	(-)25.1%
Electricity	19.853	0.3%	4.8%	12.7%	(-)8.0%
Overall Infrastructure Index	**100.00**	**4.4%**	**0.6%**	**16.6%**	**(-)14.5%**

- Growth of eight core sector industries increased to 4.4% in September'21 from 0.6% in September'20.
- Natural gas production grew by 27.5% in Sept.'21 as compared to contraction of 10.6% in Sept.'20.
- Growth in Refinery Products sector was 6.0% in Sept.'21 as compared to contraction of 9.5% in Sept.'20.
- Cement production grew by 10.8% in Sept.'21 as compared to a contraction of 3.4% in Sept.'20.

– Core sector growth rose by 16.6% in H1'21 against a contraction of 14.5% in CPLY.

- **US Dollar & Euro Movement :**

	1/10	8/10	15/10	22/10	29/10
Exchange Rate (Rs./US $)	74.18	75.09	74.97	74.95	74.99
Exchange Rate (Rs./Euro)	86.02	86.90	86.92	87.20	86.63
Brent Crude oil fob (US$/Bbl)	79.28	82.39	84.86	85.53	84.38

2. (B) Industrial Production

Table 1
INDEX OF INDUSTRIAL PRODUCTION : SECTORAL
(Base: 2011-12=100)

	Mining (Weight – 14.37)		Manufacturing (Weight-77.63)		Electricity (Weight-7.994)		General (Weight-100)	
	2021-22	20-21	2021-22	20-21	2021-22	20-21	2021-22	20-21
% Growth over the corresponding period of previous year								
Aug.	23.6%	(-)8.7%	9.7%	(-)7.6%	16.0%	(-)1.8%	11.9%	(-)7.1%
Apr.-Aug.	25.1%	(-)18.0%	31.2%	(-)27.9%	15.4%	(-)10.4%	28.6%	(-)25.0%

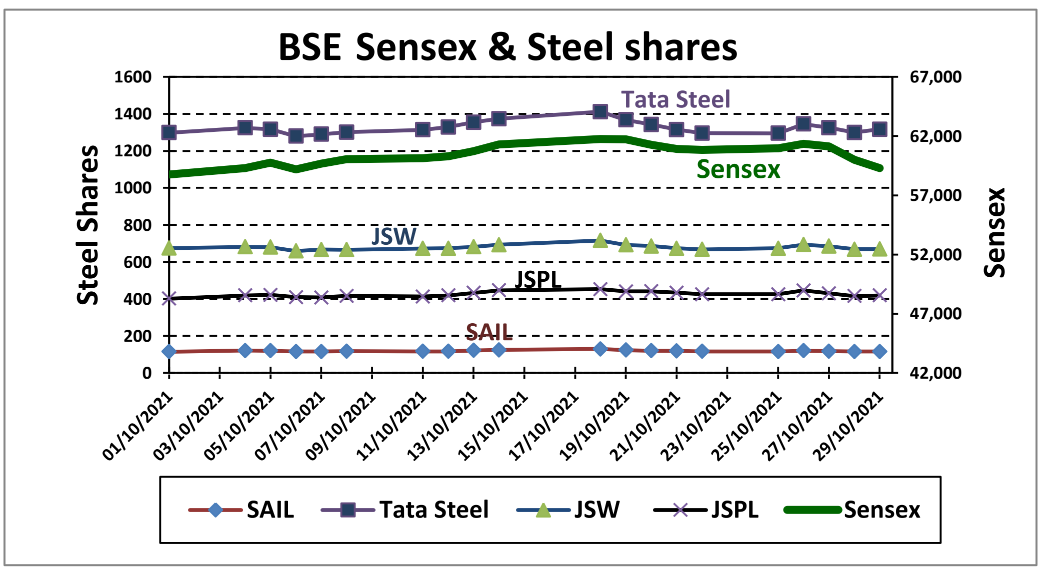
Table 2
INDEX OF INDUSTRIAL PRODUCTION: USE-BASED
(Base: 2011-12=100)

	Primary Goods (Weight – 34.05)		Capital goods (Weight – 8.22)		Intermediate Goods (Weight – 17.22)	
	2021-22	20-21	2021-22	20-21	2021-22	20-21
% Growth over the corresponding period of previous year						
Aug.	17.0%	(-)10.7%	19.9%	(-)14.4%	10.3%	(-)4.8%
Apr.-Aug.	18.2%	(-)16.4%	60.1%	(-)47.6%	39.9%	(-)27.2%
	Infrastructure/ construction Goods (Weight-12.34)		**Consumer Durables (Weight- 12.84)**		**Consumer Non durables(Weight-15.33)**	
	2021-22	**20-21**	**2021-22**	**20-21**	**2021-22**	**20-21**
Aug.	11.1%	0.0%	8.0%	(-)10.2%	5.2%	(-)3.0%
Apr.-Aug.	44.9%	(-)30.2%	54.0%	(-)47.5%	10.2%	(-)10.3%

- Industrial production grew by 11.9% in August mainly due to a low-base effect and good performance by manufacturing, mining and power sectors that surpassed the pre-COVID level.
- Manufacturing sector which constitutes 77.63% of the Index, grew by 9.7% in August.
- Mining sector output rose by 23.6% in August while power generation increased by 16%.
- Output of capital goods which is a barometer of investment, grew by 19.9% in August'2021. It had witnessed a contraction of 14.4% in the year-ago period.
- Consumer durables manufacturing increased by 8% in August'21 against a decline of 10.2% in August'20.

As per a monthly survey by IHS Markit India, India's manufacturing sector activities gained further strength in October as companies scaled up production and stepped up input purchasing in anticipation of further improvements in demand. The October data pointed to an improvement in overall operating conditions for the fourth straight month. Indian companies also observed a notable pick-up in international demand for their goods.

2. (C) Sensex and Steel Shares



Sensex during the month rose to a record level of 61,765 mark but subsequently came down and ended the month at a level of 59,306 mark.

On 4th, Sensex went up by 534 points due to all round buying interest. On 7th, Sensex went up again by 488 points on the back of positive global cues.

On 13th, Sensex went up by 453 points, on the back of a rally in Tata Group shares following the Tata Motors-TPG deal.

On 14th, Sensex went up by 569 points, powered by gains in technology stocks following upbeat results from top companies, Infosys and Wipro.

On 18th, Sensex went up to a record level of 61,765 mark led by gains in metals, information technology and banking stocks.

On 20th, however, Sensex cracked by 456 points led by Reliance Industries. On 21st, Sensex went down by 336 marks to end below 61,000-mark.

On 28th, Sensex plunged by massive 1,159 points on across-the-board selloff as monthly derivatives expired amid a weak trend in global markets.

On 29th, Sensex went down by 678 points on the back of unabated selling pressure in select index heavyweights and ended the month at 59,306 mark.

3. International Economic Scenario

- **International Monetary Fund** has slightly downgraded its outlook for global economic recovery from the pandemic recession, reflecting the supply chain disruptions in industrialized countries and huge disparities in vaccination rates between rich and poor nations.

  In its latest World Economic Outlook, the IMF foresees global growth this year at 5.9% as compared with its earlier projection of 6%.

  For the United Sates, IMF predicts a growth of 6% for 2021, below its July forecast of 7%. The downward revision reflects a slowdown in economic activity, resulting from a rise in COVID-19 cases and production disruptions caused by supply shortages and resulting acceleration of inflation.

  China, the world's second-largest economy, is expected to register growth of 8% this year, down slightly from the IMF's forecast of 8.1% in July.

  IMF predicts that for the world's advanced economies as a whole, growth will amount to 5.2% this year. For the low income developing countries, GDP growth rate has been predicted as 3%. IMF attributed the divergence to the sizable disparities in vaccine access between wealthy and low income countries. While nearly 60% of the population in advanced economies is fully vaccinated, only about 4% of the population in the poorer countries is fully vaccinated.

- **Customers worldwide are beginning** to feel the pinch from the surge in costs. The rebound in economic activity has exposed shortages across supply chains with companies scrambling to find workers, ships and even fuel, threatening the recovery.

  Inflation is rising in many countries across the globe. Euro zone inflation is expected to hit 4% before the end of the year, twice the ECB's target and is forecast to remain above the target throughout 2022.

  Power crisis, caused by shortages of coal, high fuel prices and booming post-pandemic industrial demand has halted production at numerous Chinese factories, including many supplying big global brands such as Apple Inc.

  Brent crude prices are also rising due to rising demand. Rising gas prices could further raise the demand for oil by an estimated half a million barrels per day (bpd). Higher energy prices are also adding to inflationary pressures that could lead to lower industrial activity and a slowdown in the economic recovery.

  A global shortage of semiconductor chips has forced carmakers to halt production again.

- **US economic expansion slowed dramatically** in the third quarter to an annual rate of just 2% as consumer spending moderated amid resurgent Covid-19 infections.

  The spread of the Delta variant of Covid-19 combined with renewed restrictions and global supply snags, including a shortage of workers, took a toll on the economy, slowing the growth from 6.7% annual rate in the previous quarter.

  During the third quarter, resurgence of Covid-19 cases resulted in new restrictions and delays in the reopening of establishments in some parts of the country.

  Pandemic-era loans to businesses, grants to State and local Governments and social benefits to households, also decreased.

  Among other things, sales of big-ticket manufactured goods fell by 26% during the period. In particular, sales of new cars fell sharply, as prices shot up amid a shortage of semiconductors. At the same time, growth in the US services sector decelerated to 7.9%, as consumers spent less on eating out and staying in hotels.

Inflation, meanwhile, hit 5.4% in September, with global supply chains struggling to meet soaring consumer demand as the economy reopened.

- **The Euro zone economy grew by more than expected** and at its fastest pace in a year in the third quarter, as COVID-19 restrictions were steadily eased.

  GDP of the 19 countries sharing the Euro area grew by 3.7% in Q3 y-on-y.

  The economy had contracted in Q4'2020 and Q1'21.

  Germany, Euro zone's largest economy, grew by a lower than expected, at 1.8% quarter-on-quarter, while France, the second largest economy, expanded at a faster than expected, at 3%.

- **China's economic growth slowed down in Q3** as a slowdown in construction along with the debt troubles of the property sector, curbs on energy use, supply chain problems and continuing coronavirus troubles, affected its recovery. Chinese economy grew by 4.9% y-on-y in Q3, down from the previous quarter's 7.9% growth.

  Factory production, retail sales and investment in construction, all weakened. Construction, an industry that supports millions of jobs, has slowed since regulators tightened control last year over borrowing by developers. One of the biggest construction groups, Evergrande Group, is struggling to avoid defaulting on billions of dollars owed to bondholders. That has fueled fears about the health of other developers.

  The energy crisis has been hitting China particularly hard. Manufacturing was hampered in September by power cuts imposed by some major provinces to meet energy efficiency targets.

  China's growth is expected to slow down further due to three factors: Government policy to emphasise quality growth over quantity growth, which implies continuous tightening of regulation in key sectors such as real estate, e-commerce and fintech sectors; energy crisis and a snowball effect due to the two previous factors.

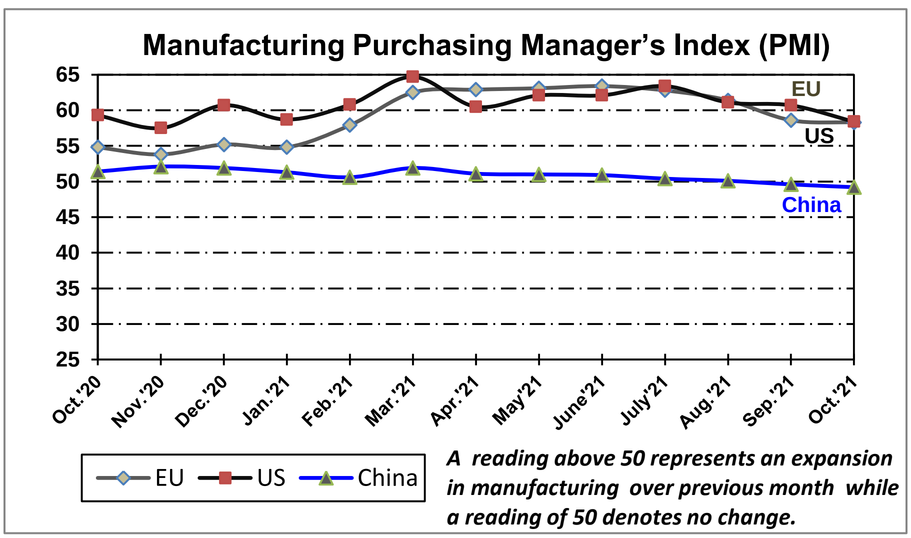
  Most major investment banks have trimmed their economic predictions for the year. Banks that cut China's GDP forecast :

ANZ	: Cut to 8.3%, from 8.8%
Morgan Stanley	: Cut to 7.9%, from 8.2%
Bank of America	: Cut to 8.0%, from 8.3%
Citi	: Cut to 8.2%, from 8.7%

Deutsche Bank : Cut to 8.4%, from 8.9%
Goldman Sachs : Cut to 7.8%, from 8.2%
HSBC : Cut to 8.3%, from 8.5%
Nomura : Cut to 7.7%, from 8.2%
Standard Chartered : Cut to 8.2%, from 8.8%
JPMorgan : Cut to 8.3%, from 8.7%

	1/10	8/10	15/10	22/10	29/10
Exchange Rate (Euro/US$)	0.86	0.86	0.86	0.85	0.86
Exchange Rate (Yen/US$)	110.96	112.15	114.29	113.57	114.04
Exchange Rate (GBP/US$)	0.73	0.73	0.72	0.72	0.73

Car sales (nos.)	**Sep.'21**	***% change y-on-y***
China	17,50,000	*(-)16.1%*
US *(avg. monthly rate)*	12.6	*(-)24.5%*
EU *(registrations)*	718,598	*(-)23.1%*
Japan	3,18,371	*(-)32.2%*



4. Domestic Steel Scenario

Tata Steel

– Tata Steel BSL reported over a five-fold jump in its consolidated net profit to Rs. 1,837 cr. for the September' 2021 quarter, mainly on account of higher income.

It had clocked a net profit of Rs. 341.7 cr. during the corresponding period of the previous financial year 2020-21.

Its total income during July-September' 2021 quarter rose to Rs. 8,330 cr., from Rs. 5,545 cr. in the year-ago period.

Jindals

– JSW Steel reported a 350% year-on-year rise in consolidated net profit to Rs. 7,170 cr. for the quarter ended September which was sharply above analysts' expectations. It reported a 69% y-on-y jump in consolidated total revenue at Rs. 32,503 cr. which was also above Street's estimate. Both the topline and bottomline reported by the company were the highest ever quarterly figures in its history reflecting the strong upswing in the domestic steel industry.

During the quarter, the company's cost of raw material surged by 48% year-on-year to Rs. 12,329 cr. reflecting the impact of the ongoing commodity inflation in the global economy. Revenue of the company was largely boosted by the diversion of saleable steel towards export markets.

JSW Steel continued to reduce the leverage on its balance sheet as net gearing declined to 0.92 times in the quarter from 1.04 times in the previous quarter.

– JSW Steel fired up its second blast furnace at Dolvi, Maharashtra, on Oct. 3, doubling the Dolvi Steel Work's production capacity to 10 MTpa. This is the biggest ever single phase expansion undertaken in the Indian steel industry.

This marks the end of an expansion program for the plant which included the 4.5 MTpa BF with a supporting 5 MTpa steel melt shop and a 5 MTpa hot strip mill.

Following the takeover and expansion, JSW Steel is expected to have a capacity of more than 26 MTpa.

– JSW Steel plans to spend around Rs. 28,000 cr. to expand its steel-making capacity by 12 MTpa to 36.5 MTpa by March' 2024, from the current 24.5 MTpa.

  It will expand the capacity of its major plant at Vijayanagar, Karnataka to 19.7 MTpa from 12 MTpa. The capacity of Bhushan Power and Steel will be increased to 5 MTpa from 2.5 MTpa. It recently completed the doubling of its capacity at Dolvi, Maharashtra to 10 MTpa and is in the process of building mining infrastructure in Odisha.

  The company will require around Rs. 28,000 cr. for new projects at Vijayanagar and BPSL. It will arrange the capital for new projects at a debt-equity ratio of 1:1.

  JSW Steel will invest Rs. 150 cr. to set up a 1.2 lakh Tpa color coated steel manufacturing facility in Jammu and Kashmir.

– JSW Steel Limited has increased its stake to 80% of the paid-up equity capital of Neotrex Steel Private Limited, an under-construction project to produce Low Relaxation Pre-Stressed Concrete (LRPC) strands.

  The company's Board approved the acquisition of a 51% stake in Neotrex Steel from the JSW Group promoters' owned company Everbest Consultancy Services.

  The company has infused Rs.33 cr. in Neotrex Steel. JSW Steel now owns 80% of Neotrex Steel and has made it a wholly-owned subsidiary.

  JSW Steel will make a strategic investment of Rs. 96 cr. in the under-construction project to set up 1.44 lakh Tpa LRPC strands at an investment of Rs. 340 cr. The project is expected to be completed by April' 2023.

– JSPL has received consent to operate (CTO) to enhance its BF (4,554 m3) production capacity at its integrated steel facility in Odisha's Angul, to 4.25 MTpa from the existing 3.2 MTpa

  The steelmaker has also received CTO for enhancing the production from the sinter plant (490 square metres) from the existing 4 MTpa to 5 MTpa.

  JSPL is doubling its steelmaking capacity at Angul to 12 MTpa from 6 MTpa, raising its India crude steel capacity by 66% to 15.9 MTpa.

AMNS

– ArcelorMittal Nippon Steel plans to take the capacity of its Hazira plant to 18 MTpa. In Odisha, it is looking at setting up an additional 12 MTpa capacity between Paradeep and Kendrapara. The company has signed an initial pact with the Odisha Government to build a 12 MTpa steel mill.

It plans to invest Rs. 50,000 cr. in Hazira and a similar amount in Odisha.

AMNS India is also diversifying into renewable energy, including solar and hybrid power, as part of its sustainability efforts.

The company is also keen on having its own logistics support by way of jetties.

- **The Commerce Ministry's investigation arm DGTR** has recommended continuation of anti-dumping duty on certain steel imports from China for another 5 years, with a view to guard domestic manufacturers from cheap imports. DGTR has said that there is a likelihood of continuation/ recurrence of dumping and injury to the domestic industry in the event of revocation of the existing duty on imports of certain 'bars and rods, hot-rolled, in irregularly wound coils, of iron or non-alloy steel or alloy steel' from China.

  The recommended duty is the difference between the landed value of the goods and US$ 546/T.

  India's DGTR has also commenced a 'sunset review' of current anti-subsidy measures or countervailing (CVD) on imports of hot and cold rolled stainless steel flat products from China. Earlier, DGTR had recommended the levy of CVD in July'17 for a period of 5 years.

- **Ind-Ra has revised the rating outlook** for domestic steel companies to positive for H2'FY 22 from Stable, due to stronger balance sheets on account of deleveraging despite normalising per tonne margins and increased capex outflow.

  Higher coking coal prices are likely to moderate the per tonne earnings although softening of iron ore prices amid somewhat stable steel prices, will keep it elevated. However steel sales volumes and price levels, are likely to remain robust.

  Coking coal prices increased by 250% year-on-year in mid-September' 2021 and are likely to remain volatile. Iron ore prices could correct with supply improving gradually but will remain elevated due to structural changes post mine auctions.

Both demand and supply are likely to be strong. The Government's Rs. 111 trillion infrastructure investment plan and budget's emphasis on capex and infra investment, is likely to ensure a steady domestic demand.

- **India's domestic prices of HRC** went up from a level of Rs. 66,000/T (exc. GST) at the end of September'21 to a level of Rs. 72,500/T at the end of October'21. Domestic steel producers increased prices by a total of three times during the month. These are the highest price level touched since January' 2009. Factors behind price hike :

1. Increased coking coal prices
2. Increase in restocking activities: The distribution network participants had restarted restocking as the mills announced their intent on price increase for Oct'21.
3. Anticipation of demand recovery: Demand is likely to improve as the monsoon season is over. Further, manufacturers are of the view that demand shall pick up with an increase in sales ahead of the Diwali festival.
4. Export opportunities amid declining production from China: Manufacturers might gain access to more opportunities in overseas trades as China is reducing its production levels.

Indian rebar prices also escalated and are now over 10-year highs. Secondary (induction furnace-route) mills' prices were at around Rs. 53,900/T ex Mumbai.

The long products market is pegged at 45 MT in which the share of primary mills is 30-35%, the balance 60-65% held by the largely sponge-based players. Sponge iron is heavily dependent on coal. But with the runaway coal inflation, cost of production of these units, shot up. Moreover, there were fears of power disruption due to shortage of coal which also supported prices.

Global scrap prices have been moving upwards as due to production cuts at auto majors, domestic scrap generation was down.

- **India's steel prod., cons., imports and exports :**

Finished Steel				
	Oct.'21	***% chng y-on-y***	**(Apr.-Oct.)'21**	***% chng y-on-y***
Gross Production (MT)	9.03	*(-)1.2%*	62.37	*28.9%*
Imports (MT)	0.38	*4.4%*	2.75	*17.2%*

Exports (MT)	1.05	*90.1%*	8.8	*24.1%*
Consumption(MT)	8.28	*(-)11.9%*	57.39	*25.0%*

(Source – JPC)

- **Production of domestic steel majors :**

	Hot Metal Prod. (MT)		**Crude Steel Prod.(MT)**		**Fin. Steel Prod. (MT)**	
	Sep.'21	*% chng. y-on-y*	**Sep.21**	*% chng. y-on-y*	**Sep.'21**	*% chng. y-on-y*
SAIL	1.55	*12.3%*	1.44	*14.9%*	1.15	*15.1%*
Tata Steel	1.55	*(-)0.8%*	1.52	*(-)0.6%*	1.50	*(-)2.7%*
JSW	1.26	*6.0%*	1.32	*5.3%*	1.22	*1.2%*
JSPL	0.49	*5.9%*	0.61	*9.5%*	0.42	*7.4%*
AMNS	0.26	*(-)8.8%*	0.58	*0.5%*	0.60	*5.6%*
RINL	0.50	*29.8%*	0.47	*29.7%*	0.31	*30.2%*

(Source – JPC)

- **Itemwise Steel Imports-Exports :**

	Imports		**Exports**	
	(Apr.-Sep.)'21 ('000 T)	*% chng. y-on-y*	**(Apr.-Sep.)'21 ('000 T)**	*% chng. y-on-y*
Carbon Steel				
Semis	**64.4**	*(-)46.0*	**2983.5**	*(-)32.1%*
of which Slabs	1.2	*(-)97.0*	271	*(-)24.1%*
Billets	7.2	*(-)69.7%*	1857	*(-)37.2%*
Longs	**88.7**	*5.3%*	**1373.8**	*143.6%*
of which Plain Rounds	9.6	*10.7%*	50.2	*135.7%*
Rebars	15.6	*(-)1.3%*	677	*121.2%*
Wire Rods	17.6	*10.0%*	528.8	*192.8%*
Structurals	7.5	*(-)45.5%*	109.4	*131.3%*
Rly. Matl.	38.1	*32.5%*	0.4	*(-)93.9%*
Flats	**1410.7**	*13.3%*	**5807.9**	*4.2%*
of which Plates	126.4	*(-)38.4%*	441.8	*63.2%*
HRC	389.7	*18.2%*	3434.2	*(-)23.5%*

CRC	144.5	*72.7%*	681.5	*127.1%*
GP/GC	290.1	*49.1%*	1004.8	*170.3%*
Colour Coated	46.3	*(-)7.0%*	148.1	*190.4%*
Elec.sheets	226.1	*25.7%*	17.0	*0.5%*
Tin plates	50.2	*1.5%*	22.3	*178.8%*
Pipes	71.2	*1.7%*	55.3	*(-)1.2%*
Alloy/SS	**894.0**	*34.7%*	**578.1**	*29.1%*

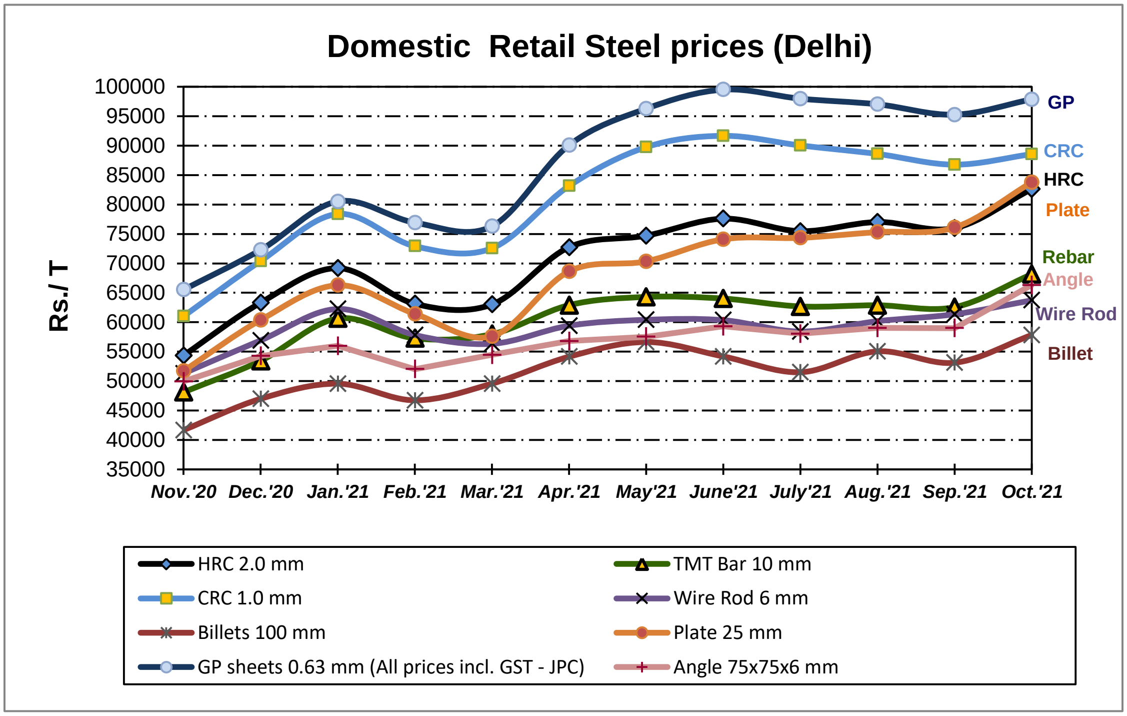
(Source – JPC)

- **Itemwise Finished Steel production of domestic steel producers:**

	Production (MT) (Carbon Steel) - (Apr.-Sep.)'21							
Category	SAIL	Tata	RINL	AM/NS	JSPL	JSW	Others	**Total**
Longs	**2.42**	**1.67**	**1.77**	**0**	**1.40**	**1.63**	**16.07**	**24.97**
of which Plain Rounds	*0*	*0.03*	*0.27*	*0*	*0*	*0.42*	*1.52*	*2.24*
Wire Rods	*0.36*	*0.43*	*0.29*	*0*	*0.18*	*0.58*	*1.46*	*3.32*
Rebars	*1.01*	*1.19*	*0.83*	*0*	*0.79*	*0.60*	*10.48*	*14.92*
Structurals	*0.46*	*0*	*0.18*	*0*	*0.35*	*0*	*2.27*	*3.27*
Rly. Matl.	*0.58*	*0*	*0*	*0*	*0.08*	*0*	*0.006*	*0.66*
Flats	**3.98**	**7.2**	**0**	**3.67**	**0.95**	**5.66**	**3.49**	**24.97**
of which **Plates**	*1.52*	*0*	*0*	*0.37*	*0.55*	*0*	*0.05*	*2.49*
HRC	*2.45*	*7.2*	*0*	*3.3*	*0.4*	*5.66*	*3.43*	*22.48*
of which HSM Plate/Sheet	*0.06*	*0.06*	*0*	*1.02*	*0.06*	*0.17*	*0*	*1.38*
CRC/Sheets	*0.59*	*1.74*	*0*	*0.81*	*0*	*3.97*	*2.41*	*9.53*
GP/GC	*0.08*	*0.52*	*0*	*0.49*	*0*	*0.98*	*1.22*	*3.30*
Color Coated	*0*	*0.10*	*0*	*0.19*	*0*	*0.42*	*0.42*	*1.12*
Galvalume	*0*	*0.10*	*0*	*0*	*0*	*0.40*	*0.13*	*0.63*
Electrical	*0.03*	*0*	*0*	*0*	*0*	*0.08*	*0.09*	*0.21*

Tin plates	*0*	*0*	*0*	*0*	*0*	*0.09*	*0.18*	*0.27*
Pipes(large dia)	*0.03*	*0.14*	*0*	*0.14*	*0*	*0*	*1.25*	*1.56*

(Source – JPC)



5. International Steel Scenario

MEPS world average hot rolled coil prices declined by 3.6% month-on-month in October, after reaching an all-time high figure in September. This brought to an end a 14 -month price rally. The downturn in automotive production due to semiconductor shortage, is widely regarded as the driving force behind the deterioration in the global steel market.

Looking ahead, steelmaking raw material and energy costs are likely to remain high through the winter months. Consequently, despite the potential for further reductions in global HRC prices, the same are expected to remain elevated in H1'2022.

USA

Hot rolled coil prices in the US finally yielded to the negative pressure witnessed in the European and Asian regions.

US domestic prices of HRC decreased from a level of US$ 1,956/s.T. at the end of September'21 to a level of US$ 1,890/s.T. at the end of October'21.

Inventory levels rose and buyers became increasingly reluctant to place the forward orders. The coil availability rose quickly and buyers lost urgency for buying coil. Lead times also came down below 8 week mark. There were plenty of domestic options for November shipments. In addition, imports also started arriving. Everyone believed that prices will continue dropping and that pushed them to buy only what they essentially needed.

Looking ahead, decreases in prices is anticipated in the interim. Nevertheless, few market participants expect that steel prices will go into free-fall, amid healthy end-user demand and planned mill maintenance outages.

In the longs section, US domestic prices of rebar remained unchanged at a level of US$ 970/s.T. as steady market conditions in most regions supported prices. Demand remained strong and scrap prices remained unchanged in most regions.

Looking ahead, upcoming maintenance outages and limited mill availability would support steady rebar prices.

Europe

Sentiment in European steel market has weakened substantially since the summer period. Availability of HRC has improved. Mill delivery lead times are reducing. Volumes, initially intended for the car manufacturers, are being diverted into the general market. Moreover, steel import tonnages have risen sharply throughout 2021. Steel mills are passing on higher energy costs to their customers. Confirmed surcharges stood between Euro 25-50/T. Escalating energy costs may stem the price decreases in this region.

N.Europe domestic prices of HRC came down from a level of Euro 1,050/T at the end of September'21 to a level of Euro 1,020/T at the end of October'21. Pressures like cheap imports, greater availability and a lack of demand were the main reasons behind the price fall. Some mills were even offering discounts in efforts to book material. Semiconductor shortages led to stoppages at some of the car manufacturers which ultimately had an influence on steel prices and led to increasing stocks of steel. The semiconductor shortage is projected to continue into 2022.

Import prices were also seen to be more attractive than domestic prices. Indian flat steel volumes vastly dominated European import levels with most quotas for Indian flats already exhausted for Oct.-Dec. quarter.

European market is looking toward possibilities of more production levels with Thyssenkrupp having restarted its biggest blast furnace on Oct. 1 after a reline.

In the longs section, N.Europe's domestic prices of rebar went up from a level of Euro 790/T at the end of September'21 to a level of Euro 815/T at the end of October'21.

Prices were higher amid high energy and transportation costs, despite decease in scrap prices.

China

Tight power availability dragged down China's steel production in October. In addition to the power crunch, winter output cuts scheduled from Nov. 15 to March 15, will require steel mills in major cities to keep their crude steel production at 30% lower than a year ago. Several mills in northern China expect winter output cuts to be much more strictly implemented than in previous years.

China's export prices of HRC went down from a level of US$ 925/T fob at the end of September'21 to a level of US$ 880/T fob at the end of October'21. China's steel prices fell due to bearish sentiment, falling steel demand and falling futures sentiment.

Total new home starts over January-September fell by 4.5% y-on-y. Power rationing across China forced manufacturing activity to contract in September. But the key problem for manufacturing sector was the slow recovery in Chinese consumption. Sporadic occurrences of local COVID-19 cases also slowed the consumption recovery.

Steel prices also fell due to Chinese Govt.'s efforts to control coal prices. Bearish mood emerged in Chinese markets after the NDRC announced on Oct. 19 that China may adopt several measures to stabilize thermal coal prices.

China's largest steel producer Baosteel rolled over HRC list prices for November shipment.

In the longs section, China's export prices of rebar increased slightly from a level of US$ 735/T fob at the end of September'21 to a level of US$ 748/T fob at the end of October '21.

In China's domestic market, prices of rebar surpassed those of HRC. Steeper falls in the output of the rebar following power cuts, was responsible for the rebar price overtaking HRC. Previously, the policy of cutting steel output mainly targeted BF-BoF mills but recently due to power rationing, EAF mills were severely affected.

As per CISA, Chinese domestic steel prices are likely to stay range-bound during the coming term as supply and demand should remain in balance.

CIS

Black Sea export prices of HRC went up from a level of US$ 810/T fob at the end of September’21 to a level of US$ 850/T fob at the end of October’21.

Prices of flat steel products in the Black Sea spot market extended gains amid recovering demand. There was stronger demand for imports in Europe, North Africa and the Middle East.

Russian steel mills increased their domestic prices for November deliveries of HRC and CRC in Moscow despite buying interest being cooler with the end of the construction season.

In the longs section, Black Sea export prices of rebar were stable at US$ 685/T fob.

Developments in International Steel Industry :-

- **The World Steel Association has forecast** that world steel demand will grow by 4.5% in 2021 to reach 1,855.4 MT. In 2022, steel demand will see a further increase of 2.2% to reach 1,896.4 MT. The current forecast assumes that with the progress of vaccinations across the world, the spread of variants of the COVID virus will be less damaging and disruptive than seen in previous waves.

  China’s steel demand is forecast to go down by 1% in 2021 at 985.1 MT as compared with a previous outlook of 3% growth. No growth in steel demand in China is expected in 2022, with the real estate sector remaining depressed in line with the Government policy.

  Meanwhile, steel demand outside China was expected to return to its pre-pandemic level in 2021, earlier than previously forecast due to the stronger economic recovery. The world, excluding China, is expected to grow by 11.5% in 2021 to 870.3 MT and by 4.7% in 2022 to 911.3 MT.

SRO October 2021, finished steel products

Regions	million tonnes 2020	2021 (f)	2022 (f)	y-o-y growth rates, % 2020	2021 (f)	2022 (f)
European Union (27) & United Kingdom	140.8	158.7	167.4	-11.2	12.7	5.5
Other Europe	36.0	41.9	44.9	9.4	16.4	7.1
CIS	58.1	59.9	61.7	-0.3	3.1	3.0
USMCA	114.0	129.6	136.5	-15.8	13.7	5.4
Central and South America	38.8	47.9	48.3	-7.2	23.2	0.9
Africa	35.4	39.1	42.0	-9.7	10.4	7.5
Middle East	47.2	48.1	50.5	-4.4	2.0	4.9
Asia and Oceania	1 305.0	1 330.2	1 345.1	3.7	1.9	1.1
World	**1 775.4**	**1 855.4**	**1 896.4**	**0.1**	**4.5**	**2.2**

- **China's crude steel output in September** fell to the lowest level since December' 2017 with mills cutting production on tight power supply and on Beijing's requirements to reduce steel production.

  Crude steel output at 73.75 MT in September fell by 21.2% on the year.

  More steel mills started to cut output in September as tight thermal coal supply led to power shortages. Nationwide capacity utilisation of electrical arc furnaces (EAFs) fell to 60% in September from 80% from a year earlier. BF utilisation rate fell by 15% y-on-y to 73% in September.

  Shagang Group, China's largest privately-owned steel producer began slashing production from October 19th, on severe power shortages. It will cut rebar output by 60% and wire rod output by 80% and suspend operations of its hot strip and cold strip mills, as well as its medium plate mills.

  China has also asked its steel mills in 28 cities in northern China to cut production from Nov. 15 to March 15 next year, in order to clear the smog-blanketed sky in the region and to ensure the achievement of the country's steel output reduction target. The winter output cuts will require steel mills in major cities in Hebei, Shanxi, Henan and Shandong to keep their crude steel output at 30% lower than a year ago.

- **Chinese Government has laid out action** plans to accelerate energy conservation and carbon reduction in some key industrial sectors that are considered energy- and emissions-intensive, including steel and aluminium.

  The country will formulate energy efficiency reference and benchmark levels for these sectors during 2021-2025 and aims to have more than 30% of its domestic steel and aluminium capacity qualify for the benchmark levels by 2025.

The action plans support the country's goal of reaching peak carbon emissions by 2030 and achieving carbon neutrality by 2060 and are in line with Beijing's commitment to curb blind development of energy- and emissions-intensive projects.

The Government will take measures and provide support to encourage producers to upgrade to production techniques that will reduce their energy consumption and carbon emissions and allow inefficient and backward production capacity to be phased out in the next five years. It will also encourage the producers to develop green and low-carbon technologies and products such as high-quality, high-strength and long-life steel, through innovations.

China has intensified restrictions on energy consumption in the last few months to meet its carbon emission reduction targets.

- **Baoshan Iron & Steel Co.'s third-quarter net profit** rose by 68.6% on an annual basis, defying intensified pressure from production curbs and higher raw material prices. It earned 6.5 billion Yuan (US$ 1.02 billion) during the July-September quarter. That was down from 9.7 billion Yuan it earned in the second quarter but still well above profits the company made in the same period of 2020.

  Downstream demand like vehicles, home appliances and engineering machineries were relatively weak. China's steel production and energy consumption controls also affected the company's profitability as also the rising coal prices.

  In the first three quarters, the steelmaker's net profit stood at US$ 3.2 bn., surging by 174.5% from the Jan-Sept.' period of 2020.

- **Nucor Corporation, USA, announced** record quarterly consolidated net earnings of US$ 2.13 bn., for the third quarter of 2021. By comparison, Nucor had reported net earnings of US$ 193.4 mn. for the third quarter of 2020.

  In the first nine months of 2021, Nucor reported consolidated net earnings of US$ 4.58 bn. as compared with consolidated net earnings of US$ 322.6 mn. in CPLY.

  Nucor's consolidated net sales increased by 109% to US$ 10.31 billion in the third quarter as compared with US$ 4.93 billion in the third quarter of 2020.

  Average sales price per ton in the third quarter of 2021 increased by 86% as compared with the third quarter of 2020.

- **Tata Steel Netherlands has reached an agreement** to split from Tata Steel Europe and will now continue independently.

  In the new structure there is no longer an operational Tata Steel Europe organization, instead Tata Steel Netherlands and Tata Steel UK will operate side by side as two independent companies.

  Tata Steel Netherlands consists of two business units – IJmuiden and Downstream, which comprise of Tubes, Plating, Colors, Distribution and Building Systems. Tata Steel Netherlands has recently also announced the choice for the Hydrogen route as part of its sustainability strategy.

- **Eurofer said that the recovery of steel demand** in Europe is set to continue through 2021, but at "a moderate rate" and subject to a "considerable uncertainty" which is expected to last until the first quarter of 2022.

  The industry is rebounding from last year's lockdowns, but steel production had been in long term decline before the collapse. Eurofer said that the outlook was becoming increasingly uncertain particularly due to disruptions in the global supply chain which were likely to seriously affect demand from steel-using sectors, although by 2022 most of the current disruptions were expected to ease significantly.

  The association forecasts apparent steel consumption for the whole of 2021 to rise by 13% to 146 MT, up from its previous view of an 11.2% increase. Steel consumption is forecast to grow further by 4.7% in 2022 when it is expected to return to above-2017 levels.

  Total steel production is expected to rebound by 8.5% in 2021 and by 4.7% by 2022.

- **In Europe, wholesale gas prices hit new all-time highs** prompting warnings that factories could be forced to shut down over winter or switch to more polluting fuels. A shortage of natural gas in Europe had sent prices for electricity and gas soaring. With winter approaching, demand for gas and electricity would rise and prices could get higher.

  During the whole of September, electricity and natural gas prices remained at record levels. Electricity prices were in the range of Euro 160 to 200/MWH as compared to a normal rate of Euro 55 MWH. Natural gas prices were at more than Euro 100/MWH as compared to a normal price of around Euro 20/MWH.

  European steel mills were passing on these costs to their customers via higher product prices. Confirmed surcharges were between Euro 29 – 50/T. ArcelorMittal is advising customers of a Euro 50/T electricity surcharge on new orders for long products prices.

British Steel confirmed a temporary energy surcharge of GBP 25/T and a temporary transport surcharge of GBP 5/T.

The British steel industry's lobby group warned of an impending crisis due to soaring wholesale energy prices which could force plants into shutdowns.

Spain's Sidenor will halt steel production for 20 days at its Basauri plant due to soaring electricity prices.

- **Korean steelmakers witnessed t**heir highest-ever profits in the third quarter this year, backed by strong sales due to surging steel prices. The fall in steel output from China, also contributed to the strong performance of Korean steelmakers, as overall supply tightened. Recovery in demand for cars, ships and construction materials also drove the improvements in performance.

  POSCO posted its highest ever consolidated quarterly profit of US$ 2.37 bn. in Q3, more than 5 times over the profit recorded in Q3' 2020. The record profit was mainly attributed to high prices of steel and increased sales volumes, despite high raw material cost. POSCO International posted steel sales of 10.28 MT in Q3, a 43.6% surge from the year before.

  Hyundai Steel reported a consolidated net profit of US$ 509 million in the third quarter, turning from a net loss of US$ 40 mn. from a year earlier.

  Hyundai Steel attributed the sharp turnaround to strong demand and rising steel prices.

  It sold 6.18 MT of steel plates used for shipbuilding and other premium products during Q3.

- **Tokyo Steel, Japan's leading electric arc furnace producer**, will resume HRC production at its Okayama plant located in Kurashiki City, west Japan, at the end of CY'22. Operations at Okayama had been suspended since April' 2015 due to the ageing of the hot-rolling line and sluggish orders.

  It has since then producing flats steel only at its Tahara works in central Japan.

  The company's decision comes in the wake of the growing need for electric steel sheets against the backdrop of an accelerated decarbonisation drive.

- **T.S. Global Holdings (TSGH) Singapore—**a 100% indirect subsidiary of Tata Steel —has entered into a definitive agreement with TopTip Holding to divest its entire equity stake in

NatSteel Holdings for an equity value of US$ 172 million. Tata Steel had acquired NatSteel Holdings for Rs. 1,313 cr. in 2004.

TopTip Holding is a Singapore-based steel and iron ore trading company.

The group has, however, retained Siam Industrial Wires, the wires business of NatSteel in Thailand, as part of its downstream wires portfolio. Siam is a wholly-owned subsidiary of the Tata Steel group.

Towards Green Steel :-

- **Volvo, Sweden has** unveiled a new vehicle made with a majority of "fossil-free" steel and plans to begin smaller-scale series production using the new material as early as 2022.

  The prototype vehicle, a fully electric and autonomous load carrier for use in mining and quarries, is composed of over 3,000 kilograms of the new steel. Volvo targeted construction trucks first because, on average, around 70% of the vehicle weight comes from steel and cast iron.

The steel was manufactured by SSAB, a Swedish steelmaker with whom Volvo entered into a partnership earlier this year.

Majority of the components and particularly the large bucket on the back of the vehicle are fossil-free.

The steel from SSAB is identical in all ways to conventional steel, which means it can be used in all of Volvo's existing manufacturing facilities.

In 2026, SSAB plans to supply the market with fossil-free steel on a commercial scale.

- **German steelmaker Thyssenkrupp has delivered first** batches of its low-carbon intensity "bluemint" steel.

  Reduction of CO2 emissions at the blast furnace was verified by the international certification body DNV, with a carbon emission intensity per T of steel reduced by 70%.

  Thyssenkrupp, which operates Europe's largest integrated steel mill site, will continue its path to climate neutrality with the replacement of its conventional blast furnaces with hydrogen-fueled direct reduction plants. The commissioning of the first large-scale plant including a melter, is planned for 2025.

- **BMW Group has made a deal** to source green steel from Swedish startup H2 Green Steel starting in 2025. In addition to the delivery of green steel, the BMW Group and H2 Green Steel have also agreed to create a closed-loop material cycle. H2 Green Steel will take back sheet metal remnants such as those produced at press plants so that they can be used for steel melting.

  German steel stockholder Klöckner has also signed a distribution deal with H2GreenSteel to distribute up to 0.25 MTpa of green steel from 2025. The flat steel will be processed primarily through Klöckner's subsidiary Becker Stahl-Service which mainly caters for the automotive and white goods industries.

  ArcelorMittal Germany has secured its first order of 1,000 T of green-certified flat steel from bathroom equipment maker Bette. ArcelorMittal said that by the end of 2022 its European operations will have produced 600,000 T of XCarb-certified steel.

- **Nucor, USA, has launched a line of "net-zero carbon" steel,** named Econiq, with automaker General Motors slated to receive first shipments of the product in the first quarter of 2022.

  Econiq product will be the first-of-its-kind at this scale for the US steel industry and will represent the lowest greenhouse gas emission profile for any steel on the market. The brand of steel will be produced utilizing 100% renewable electricity and high-quality carbon offsets to negate any direct and indirect emissions.

  It is projected that all steel purchased by GM from Nucor will be carbon-neutral by the end of 2022.

- **Evraz North America's Steel plant in Pueblo, Colorado**, will begin sourcing most of its energy needs from solar power from an on-site solar project developed by Lightsource BP. Lightsource's 300 MW Bighorn Solar project is the largest on-site solar facility in the US dedicated to a single customer and its 750,000 solar panels will provide nearly all of the Colorado plant's annual electricity demand.

This will enable the mill to produce some of the world's greenest steel products.

Lightsource will sell the generated electricity to Evraz under a 20-year power purchase agreement.

- **Fortescue Metals Group has become one of the first** of Australia's major industrial operators to commit to fully decarbonise its operations and supply chains, including a shift to coal-free steel processing and Hydrogen-fuelled shipping. In addition to targeting net zero scope-3 emissions by 2040, Fortescue will aim to achieve a 50% reduction in the emissions intensity of its shipping operations by 2030.

  Fortescue Metals Group Ltd's green energy unit has purchased 60% stake in Dutch-based renewable firm High yield Energy Technologies (HyET) Group to boost green energy production. As part of the deal, Fortesue will provide a majority share of financing for the expansion of HyET Solar's Dutch photovoltaics factory.

  Fortescue Future Industries (FFI) – Fortescue's renewable energy and Hydrogen business arm – will build the Global Green Energy Manufacturing centre (GEM) in Gladstone, Australia. The first of six construction stages will be the world's largest electrolyser – which breaks water into Hydrogen and Oxygen – at two gigawatts of power per annum.

- **Rio Tinto is developing an innovative new technology** to deliver low-carbon steel, using sustainable biomass in place of coking coal, in a potentially cost-effective option to cut industry carbon emissions.

  It has developed a process over the past decade that combines the use of "sustainable" biomass with microwave technology to convert iron ore to metallic iron during the steelmaking process.

  The process is now being tested in a small-scale pilot plant in Germany. If this and larger-scale tests are successful, there is the potential for this technology to be scaled commercially to process Rio Tinto's iron ore fines.

  Rio Tinto's process uses plant matter known as lignocellulosic biomass, instead of coal, as a chemical reductant. The biomass is blended with iron ore and heated by a combination of gas released by the biomass and high efficiency microwaves that can be powered by renewable energy.

Rio Tinto researchers are working with the multi-disciplinary team in the University of Nottingham's Microwave Process Engineering Group to further develop the process. Lignocellulosic biomass includes agriculture by-products (i.e. wheat straw, corn stover, barley straw, sugar cane bagasse) and purpose-grown crops which would be sustainable sources for the process.

Rio Tinto and steel producer BlueScope will join hands to explore low-carbon steelmaking pathways using Pilbara iron ores, including the use of clean Hydrogen to replace coking coal at BlueScope's Port Kembla Steelworks. The two companies have signed an MoU to research and design low-emissions processes for the steel value chain.

- **BHPB will invest up to US$ 10 mn.** over the next five years to explore technology to reduce greenhouse gas emissions in steel production, in collaboration with South Korean steel producer Posco. The two companies have agreed on an initial deal for pilot and plant trials to cut down carbon in the steel-production process. The joint measures will include exploring ways to optimise coke quality and assessing carbon capture storage and utilisation options.

  Posco and BHP will also share research on Hydrogen-based direct reduction technology, use of biomass in steel production and potential to use BHP's carbon offsetting capability in the development of "carbon neutral" steel products.

- **Brazilian miner Vale** has signed an MoU with Chinese steelmaker Jiangsu Shagang Group to pursue opportunities to develop steelmaking solutions focused on reducing CO2 emissions.

  Vale and Jiangsu Shagang intend to pursue economic feasibility studies on usage of less carbon intensive raw materials in the iron making process such as high-grade iron ore products and to collaborate on Vale's Tecnored technology.

  Tecnored is a 100% subsidiary of Vale, focusing on the use of biomass and syngas to develop low-carbon iron-making processes. With the technology, there was no need for coking or sintering.

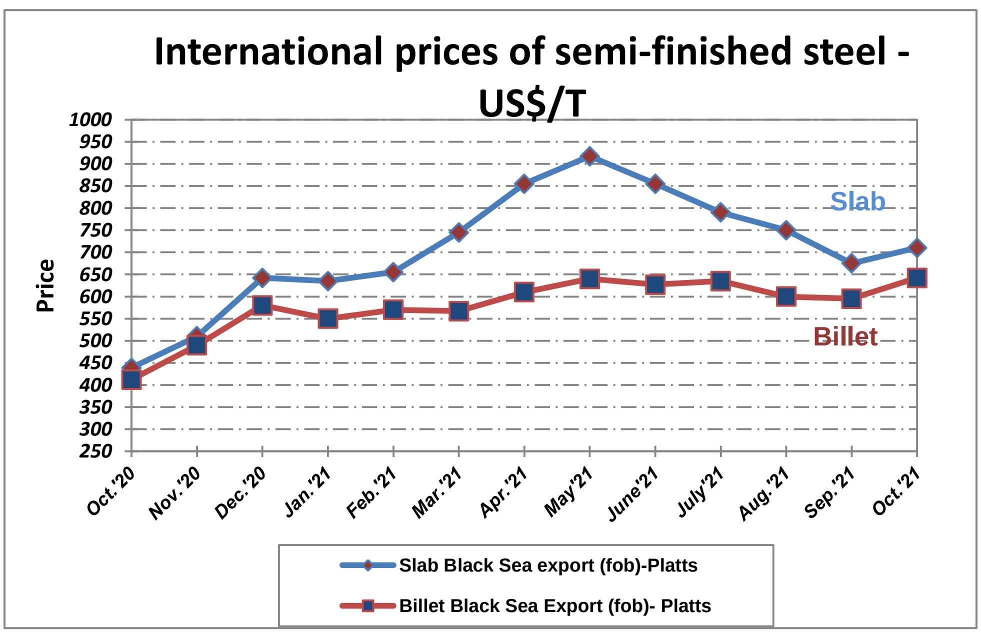
- **Tata Power and Tata Steel** have come together to develop grid-connected solar plants in Jharkhand and Odisha.

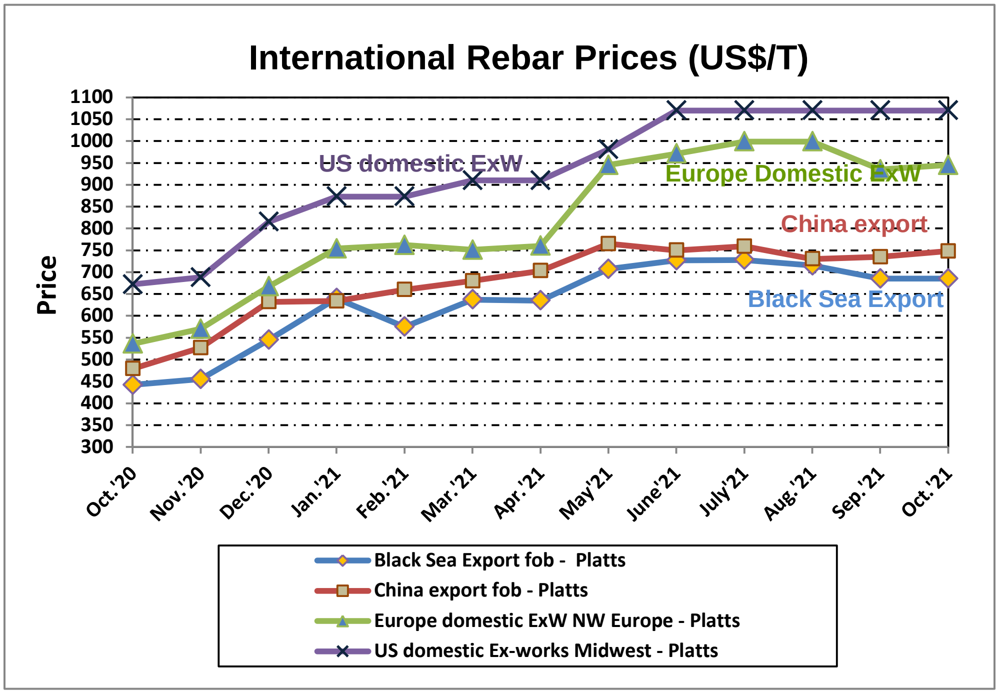
  The two companies have signed a Power Purchase Agreement (PPA) for a duration of 25 years to set up 41 MW solar project which will be a combination of rooftop, floating and ground mounted solar panels.

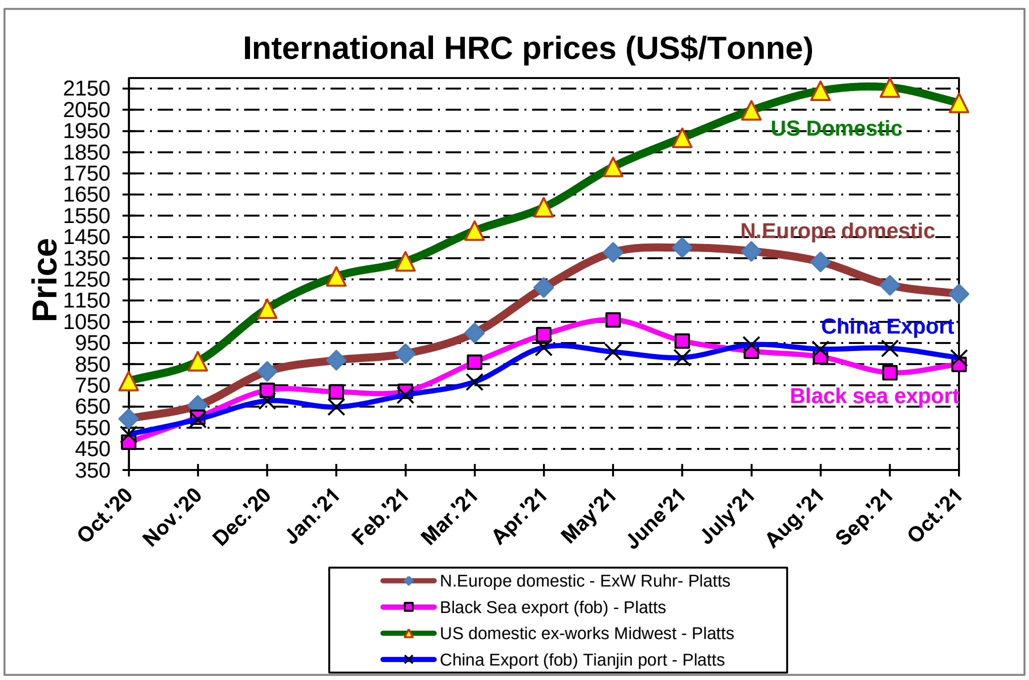
Under the project, Tata Power will develop Photo Voltaic capacities for Tata Steel at Jamshedpur (22 MW) and Kalinganagar (19 MW).

World Crude Steel Production *(Source –WSA)*

	Sep.'21 (MT)	*% change y-on-y*	(Jan.-Sep.)'21 (MT)	*% change y-on-y*
China	73.8	*(-)21.2%*	805.9	*2.0%*
EU27	12.7	*15.6%*	114.8	*19.8%*
India	9.5	*7.2%*	87.3	*23.3%*
CIS(6)	8.2	*(-)1.0%*	78.9	*6.4%*
Japan	8.1	*25.6%*	72.1	*17.9%*
USA	7.3	*22.0%*	64.4	*19.8%*
World	144.4	*(-)8.9%*	1461.2	*7.8%*




International Rebar Prices (US$/T)
Price
US domestic ExW
Europe Domestic ExW
China export
Black Sea Export
Oct.'20
Nov.'20
Dec.'20
Jan.'21
Feb.'21
Mar.'21
Apr.'21
May'21
June'21
July'21
Aug.'21
Sep.'21
Oct.'21
Black Sea Export fob - Platts
China export fob - Platts
Europe domestic ExW NW Europe - Platts
US domestic Ex-works Midwest - Platts


International HRC prices (US$/Tonne)
Price
US Domestic
N.Europe domestic
China Export
Black sea export
Oct.'20
Nov.'20
Dec.'20
Jan.'21
Feb.'21
Mar.'21
Apr.'21
May'21
June'21
July'21
Aug.'21
Sep.'21
Oct.'21
N.Europe domestic - ExW Ruhr- Platts
Black Sea export (fob) - Platts
US domestic ex-works Midwest - Platts
China Export (fob) Tianjin port - Platts

6. Steel Making Raw Materials

Iron Ore

Price of China's imported iron ore fines 62% Fe, went down from a level of US$ 117/dmt cfr at the end of September'21 to a level of US$ 107/dmt cfr at the end of October'21.

Iron ore prices fell on weak demand due to stricter steel production curbs in China.

Lower steel output and a decline in steel demand towards the end of the year, heavily affected iron ore demand.

Meanwhile, iron ore supply largely recovered and the increasing availability of iron ore was showing up in inventories at Chinese ports.

As per analysts, due to energy consumption controls, environmental curbs during winter heating season and Winter Olympics, steel supply is expected to be restricted continuously and iron ore demand will be dented.

Coking Coal

Australia's export prices of Premium Low Vol. Hard Coking Coal went up from a level of US$ 388/T fob at the end of September'21 to a record level of US$ 402/T fob at the end of October'21.

Prices of coking coal in ex China market remained high due to limited availability of coking coal from US, Canada and other non Australian countries.

China's NDRC announced on Oct. 19 that they were studying all necessary measures, including allowing the Government to limit profit rates on coking coal and set price limits and setting approval procedures for price increases, to bring back coal prices to a reasonable range. This led to bearish sentiments in the China's domestic futures market for coking coal.

The expectation is that price levels will come down with major Australian miners such as BHP and Anglo expected to raise production in Q1' 2022.

Scrap

Turkey's import prices of scrap went up sharply from a level of US$ 436/T cfr at the end of September '21 to a level of US$ 497/T cfr at the end of October'21.

The sharp hike was fueled by concerns over supplies in the upcoming winter season which led the Turkish purchasers to advance their purchases of scrap.

Rising energy costs also led a number of Turkish mills to buy deep sea cargoes in advance as mills were looking to secure their raw material costs, with energy prices unclear over the winter period.

Turkish domestic demand for rebar and billet was also strong to allow for price hikes of scrap.

- **China's metallurgical coal supply** was expected to remain tight over the near term, even as the number of Mongolian trucks entering into the country rose to 500 per day in the week ended Sept. 30, up from a mere 100 trucks in the prior week. Mongolian truck traffic into China hit a record of 2,233 trucks per day in August' 2020.

  China is facing a severe shortage of metallurgical coal amid a historic rally in coking coal prices caused by a disruption in trade flows due to the COVID-19 pandemic and the Chinese Government's unofficial ban on Australian coal since 2020.

  China's stricter coronavirus-related checks at its Mongoilian borders and a bleak chance of Australian coal imports resuming in the near term, were expected to keep the country's metallurgical coal supply tight.

- **Botswana's first iron ore mine, Ikongwe**, has started production and has delivered its maiden exports to China.

  The first exports from the Ikongwe mine, owned by Vision Ridge Investments, a unit of India's Yashomann Industries, reached China in September. The company has an order of 50,000 Tonnes per month from a state-owned steel manufacturing company there.

  Vision Ridge aims for Ikongwe to produce 1 MTpa of iron ore per year over an initial 10-year lifespan, with a grade of up to 65% Fe.

  The exports currently go via South Africa but Vision Ridge is in talks with Botswana Railways to organise bulk shipments through Mozambique's port of Maputo.

- **Vale expects to find a buyer for its Moatize** coal operation in Mozambique by the end of this year.

  Current high prices for both thermal and metallurgical coal should help the sale.

  Vale earlier this year finalized a revamp of Moatize which is currently producing at a rate of 15 MTpa and is expected to receive equipment to upgrade to 18 MTpa by the end of the year. The mine produces both metallurgical and thermal coal. Moatize which Vale brought in 2011, has a total capacity of 22 MTpa.

- **Vale reported a third-quarter net profit of US$ 3.9 billion**, significantly below analysts' forecasts, due to lower iron ore prices and an impairment of its coal business. Vale's net income fell by almost 50% from the previous quarter.

  Vale said its quarterly numbers were dented by falling iron ore prices that plunged by 31% as well as a labor disruption at its Sudbury Nickel mine in Canada that led to a hit in production.

  Vale was slowing down production of low-margin iron-ore in the fourth quarter by about 4 MT due to low prices and could cut back output in 2022 if prices did not rise.

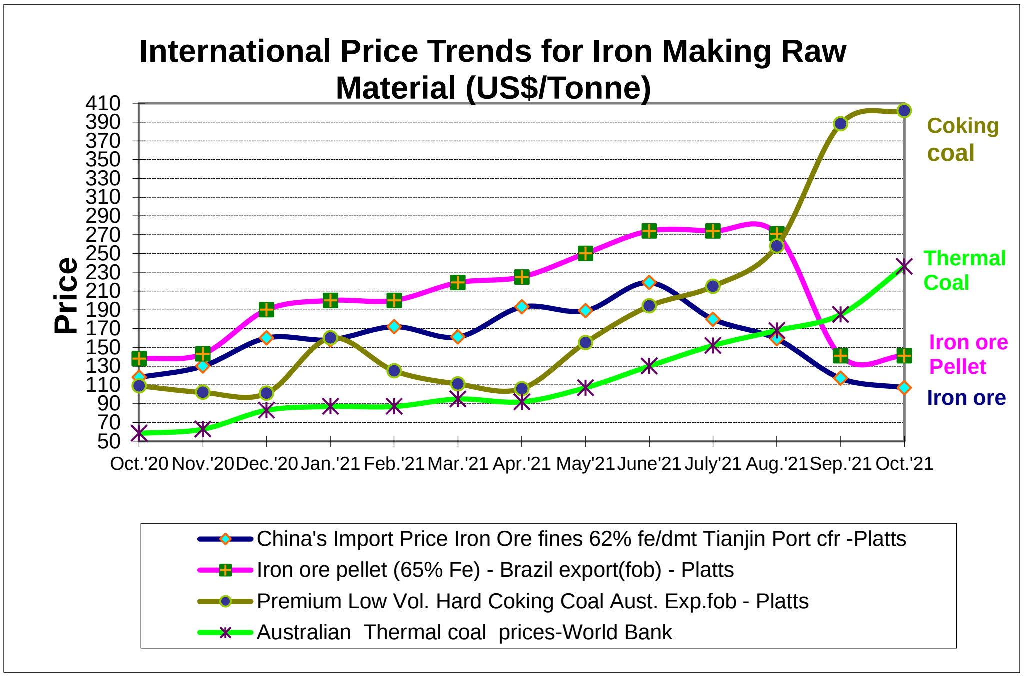
  Output for the year is now expected to fall within the lower half of its target range, currently set at between 315 and 335 MT.

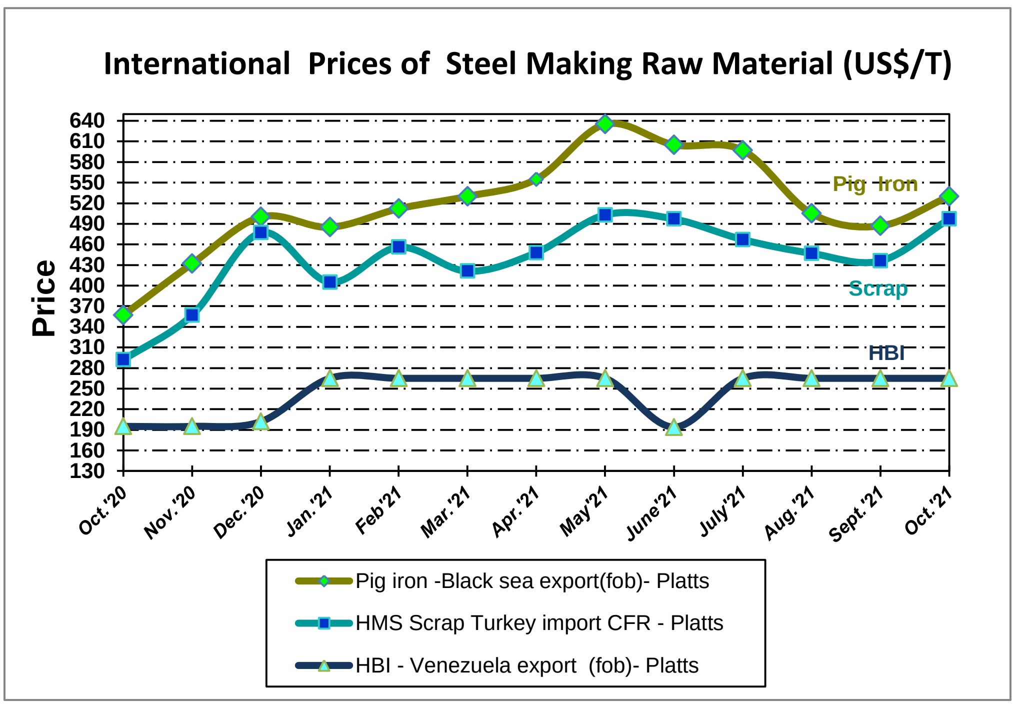
- **Indian Silico Manganese prices** are touching sky high amidst a bullish outlook, owing to higher cost of raw materials and improving demand. Most of the steelmakers are low on inventory and are actively trying to book material.

  On 18 Oct’21 the prices for the 60-14 grade Silico Manganese had skyrocketed to Rs. 135,000/T exw-Raipur and Rs. 130,450/T exw-Durgapur.

  Due to production cuts worldwide, buyers are showing good interest in Indian Silico Manganese, despite the container shortage.

  Higher prices were mainly accepted by European buyers due production curbs on ferro alloys due to rising energy costs in Europe. Record-high coal and coke prices also impacted the production cost of Silico Manganese.


International Price Trends for Iron Making Raw Material (US$/Tonne)
Price
410
390
370
350
330
310
290
270
250
230
210
190
170
150
130
110
90
70
50
Oct.'20 Nov.'20 Dec.'20 Jan.'21 Feb.'21 Mar.'21 Apr.'21 May'21 June'21 July'21 Aug.'21 Sep.'21 Oct.'21
Coking coal
Thermal Coal
Iron ore Pellet
Iron ore
China's Import Price Iron Ore fines 62% fe/dmt Tianjin Port cfr -Platts
Iron ore pellet (65% Fe) - Brazil export(fob) - Platts
Premium Low Vol. Hard Coking Coal Aust. Exp.fob - Platts
Australian Thermal coal prices-World Bank


International Prices of Steel Making Raw Material (US$/T)
Price
640
610
580
550
520
490
460
430
400
370
340
310
280
250
220
190
160
130
Oct.'20 Nov.'20 Dec.'20 Jan.'21 Feb'21 Mar.'21 Apr.'21 May'21 June'21 July'21 Aug.'21 Sept.'21 Oct.'21
Pig Iron
Scrap
HBI
Pig iron -Black sea export(fob)- Platts
HMS Scrap Turkey import CFR - Platts
HBI - Venezuela export (fob)- Platts

- **China's steel exports and iron ore imports :**

	Sept.'21 (MT)	*% change over CPLY*
China's finished steel exports	4.92	*28.79%*
China's iron ore imports	95.61	*(-)11.9%*

Summary & Conclusion

India's Prime Minister Narendra Modi has launched the digital platform for the first ever Rs. 100-lakh-cr. PM Gati Shakti multi-modal connectivity plan which will improve ease of doing business and unleash India's growth potential.

According to a survey by NCAER, business sentiment in the country hit an over two-year high in the July-September quarter. Sentiment in the real estate industry also turned optimistic and touched an all-time high during July-September'21 period.

Indian automotive industry is being affected by persistent shortage of semiconductors and rise in input costs. Total vehicle sales in Sept.'21 were down by 19.75% over CPLY.

India's merchandise exports in September rose by 22.63% y-on-y at US$ 33.79 bn. Oil imports grew by 199.27% to US$ 17.44 bn. due to pick up in economic activity.

Growth of eight core sector industries increased by 4.4% in September'21 from 0.6% in September'20. Industrial production grew by 11.9% in August mainly due to good performance by manufacturing, mining and power sectors that surpassed the pre-COVID levels.

Due to receding of corona wave, India's economic condition is looking up. Business sentiment and industrial production have improved which is a positive signal.

IMF has slightly downgraded its outlook for the global recovery due to supply chain disruptions and huge disparities in vaccination rates between rich and poor nations. It now foresees global growth this year at 5.9%, compared with its projection in July of 6%.

Customers worldwide are beginning to feel the pinch from rising inflation due to shortages of fuel, workers and ships.

US economic expansion slowed dramatically in Q3 to just 2% from 6.7% in Q2 as consumer spending moderated amid resurgent Covid-19 infections, supply chain problems and vanishing economic stimulus.

China's economic growth also slowed down in Q3 as slowdown in construction, curbs on energy use, supply chain problems and continuing coronavirus troubles, affected its recovery. Chinese economy grew by 4.9% y-on-y in Q3, down from the Q2's 7.9% growth.

US and Chinese economies have slowed down in Q3 due to resurgent corona infections and supply chain problems. IMF has slightly downgraded its outlook for the global recovery due to supply chain disruptions and huge disparities in vaccination rates between rich and poor nations.

Tata Steel BSL reported over a five-fold jump in its consolidated net profit to Rs. 1,837 cr. for Q2'21. JSW Steel reported a 350% year-on-year rise in Q2 PAT at Rs. 7,170 cr.

JSW Steel fired up its second blast furnace at Dolvi, Maharashtra, on Oct. 3, doubling the Dolvi Steel Work's production capacity to 10 MTpa. JSW Steel plans to spend around Rs. 28,000 cr. to expand its steel-making capacity further by 12 MTpa, to 36.5 MTpa by March' 2024.

JSPL has received consent to operate to enhance its production capacity at Odisha's Angul, to 4.25 MTpa from the existing 3.2 MTpa. ArcelorMittal Nippon Steel plans to take the capacity of its Hazira plant to 18 MTpa.

India's domestic prices of HRC went up from a level of Rs. 66,000/T (excl. GST) at the end of September'21 to a level of Rs. 72,500/T at the end of October'21. These are the highest price level touched since the launch of the assessment in January' 2009. Factors behind the price hike were : increased coking coal prices, increase in restocking activities, anticipation of demand recovery and increased export opportunities especially to China. India's secondary producers also raised prices of long products due to rising prices of thermal coal and power shortage.

India's domestic finished steel consumption came down by 11.9% in October'21 to a level of 8.28 MT while exports went up by 90.1% to 1.05 MT.

India's domestic steel producers recorded excellent financial performance in Q2 on rising steel prices. JSW Steel fired up its second blast furnace at Dolvi, Maharashtra doubling its production capacity to 10 MTpa. Indian steel companies raised prices of HRC by Rs. 6,500/T in October due to rising coking coal prices. India's finished steel demand remains poor and as a result domestic steel producers are increasingly resorting to exports.

MEPS world average hot rolled coil prices declined by 3.6%, month-on-month, in October, after reaching an all-time high figure in September. This brought to an end a 14 -month price rally.

US domestic prices of HRC decreased from a level of US$ 1,956/s.T. at the end of September'21 to a level of US$ 1,890/s.T. at the end of October'21 due to more availability and rising imports. N.Europe domestic prices of HRC came down from a level of Euro 1,050/T at the end of September'21 to a level of Euro 1,020/T at the end of October'21, due to cheap imports, greater availability and a lack of demand. China's export prices of HRC went down from a level of US$ 925/T fob at the end of September'21 to a level of US$ 880/T fob at the end of October'21. China's steel prices fell due to bearish sentiment, falling steel demand and falling futures sentiment.

The World Steel Association has forecast that world steel demand will grow by 4.5% in 2021 to reach 1,855.4 MT. In 2022, steel demand will see a further increase of 2.2% to 1,896.4 MT.

China's crude steel output in September fell to the lowest level since December' 2017 with mills cutting production on tight power supply and on Beijing's requirements to reduce steel production. China has asked its steel mills in 28 cities in northern China to cut production from Nov. 15 to March 15 next year, in order to reduce air pollution. Crude steel output was at 73.75 MT in September, down by 21.2% year on year.

Baoshan Iron & Steel Co.'s third-quarter net profit rose by 68.6% to US$ 1.02 bn. Nucor Corporation, USA, announced Q3 net earnings of US$ 2.13 bn. as compared to net earnings of US$ 193.4 mn. in Q3'20. POSCO posted its highest ever consolidated quarterly profit of US$ 2.37 bn. in Q3, more than 5 times over the profit recorded in Q3' 2020.

In Europe, a shortage of natural gas in Europe had sent prices for electricity and gas soaring and prompting warnings that factories could be closed down.

Tata Steel has entered into a definitive agreement with TopTip Holding to divest its entire equity stake in NatSteel Holdings, Singapore for an equity value of US$ 172 million.

Volvo, Sweden has unveiled a new vehicle made with a majority of "fossil-free" steel and plans to begin smaller-scale series production using the new material as early as 2022. Nucor, USA, has launched a line of "net-zero carbon" steel, with automaker General Motors. Evraz North America's Steel plant in Pueblo, Colorado, has tied up with Lightsource which has set up a 300 MW solar power project.

Worldwide steel prices have started to retreat from sky high levels due to better availability. Steel companies worldwide achieved record profits in Q3. China has clamped down its crude steel production levels in September.

Price of China's imported iron ore fines 62% Fe, went down from a level of US$ 117/dmt cfr at the end of September'21 to a level of US$ 107/dmt cfr at the end of October'21, due to stricter steel production curbs in China and recovering iron ore supplies.

Australia's export prices of Premium Low Vol. Hard Coking Coal went up from a level of US$ 388/T fob at the end of September'21 to a record level of US$ 402/T fob at the end of October'21. China's metallurgical coal supply was expected to remain tight over the near term, even as the number of Mongolian trucks entering into the country rose.

Vale expects to find a buyer for its 22 MTpa Moatize coal mine in Mozambique by the end of this year. It reported a third-quarter net profit of US$ 3.9 billion, down by almost 50% from the previous quarter, due to falling iron ore prices.

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