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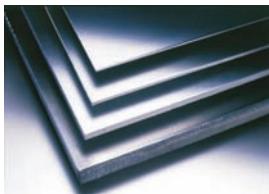
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INTRODUCTION

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Global and Indian Steel Sector – Some key Issues for Indian Steel Sector

S C Suri

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Abstract

The Indian steel industry holds the center stage in the economic policy of the country. In the existing ecosystem forecast and an assessment of the future trends in this critical constituent of economy has become imperative. In line with this objective an ambitious target for achieving crude steel capacity of around 300 million Tonnes by the middle of next decade has been envisaged in the National Steel Policy-2012(draft).

The paper covers a realistic diagnosis of various determinants for achieving this target by 2025-26 and presents a comprehensive picture covering the “matrix of contradictions” viz., Raw material security and abundant raw material availability, environmental commitments and existing resources in ecologically sensitive zones, HRD/manpower issues and Demographic dividend, land acquisition's social dimension and geographic-market dimension and existing outdated technology vis-à-vis new promising technologies and R&D issues.

Development of Indian Steel Capacity would need planning of infrastructural facility viz. Land, Water, Power, Railways and Roads including coastal transportation.

Background

The existing landscape is undergoing a renewed and accelerated transition. This rapidly evolving transition is clearly visible in terms of influential increment in the bargaining power of the developing economies in the globalised market. This has created a number of challenges and opportunities. The globalization of standards coupled with the presence of internal vulnerabilities, magnified by the “existing outdated-and-now-turned-amorphous institutions”, harvesting systemic deficiencies has become the most critical challenge for our country. To benefit most from the developments across the planet, there is an urgent need for reshaping the present economic paradigm in the country, which, can be considered to be organically integrated with the global geopolitical and economic paradigms.

It is largely felt now that manufacturing has to be the backbone of future growth strategy of India over the next decade. Foremost to the process of achieving economic maturity is the steel sectoral output and growth. Draft National Steel Policy 2012 also targets crude steel capacity of 300 Mt in the country by the middle of the next decade (2025-26).

Global & Indian Steel Scenario

The global steel industry has witnessed significant structural change over the last decade characterized by emergence of China as world leader. Significant changes are shifting of production and demand from the advanced to the developing world, seamless flow of steel across the globe through foreign trade, consolidation at local, regional and global levels. World crude steel production increased from 905 Mt in 2002 to 1547 Mt in 2012 registering a compounded annual growth rate (CAGR) of 5.51%. Global finished steel consumption increased from 822 Mt in 2002 to 1413 Mt in 2012 registering 5.57% CAGR. The share of China in global steel production and consumption increased from 20-23% in 2002 to around 46% in 2012.

The share of advanced economies like EU-27, NAFTA region, Japan etc. has shrunk during this period. About 30-35% of steel products are traded globally as evident from the following table.

Items	2008	2009	2010	2011	2012
Global production (MT)	1246.7	1151.5	1334.3	1432.4	1443.9
Exports (MT)	436.6	327.3	388.8	416.6	414
Exports as % of global production	35	28.4	29.1	29.1	28.7

Source: World Steel Association

Indian steel industry growth was fuelled by entry of private players in the post-liberalization era. Share of private sector in crude steel production increased from 37% in 1992-93 to over 75% to-day. In 2012-13, crude steel production stood at 78.31 Mt and domestic real steel consumption was 73.33 Mt. India has become net importer of steel due to higher growth in domestic demand vis-à-vis domestic availability especially of some special & value-added products like auto grade steel, electrical steel (CRGO/CRNO), special grade boiler quality plates, API grade large dia pipes, etc.

India has occupied the 4th rank in the world in terms of crude steel production lagging behind only China, USA and Japan. The country has remained world's largest producer of Sponge Iron for many years and expected to emerge as the 2nd largest producer of steel in the world in near future, next only to China. The present dynamic position of the country has strengthened its capability to achieve the sharpest steel output growth trajectory in the years ahead. However, the per capita steel use in India is still very low at 57 kg against world average of 216 kg as evident in the following table:

(Kg per capita)							
EU-27	CIS	NAFTA	Middle East	China	Japan	India	Global Average
278.8	218.2	281.1	221.9	477.4	506	56.9	216.3

Source: World Steel Association (Data for Year 2012)

Future Outlook for Global & Indian Steel Industry

Future outlook for global as well as Indian steel industry are summarised as follows:

SI No	Items	2012	2025	CAGR (2012-25), % pa
1	Global crude steel production	1547	2115	2.4
2	Crude steel – India	78	233*	8.8
	a. As per Draft National Steel Policy 2012		(300**)	
	b. As per World Steel Dynamics	78	170	6.2

* Finished steel by 2025-26 considering CAGR @ 8.8% corresponding to GDP growth @ 8% pa.

** Crude steel capacity target by 2025-26 as per Draft National Steel Policy 2012.

The present crude steel capacity in India is around 100 MT per annum. In case we have to achieve a crude steel capacity of 300 MT per annum by 2025-26, it would mean that we have to triple our steel capacity in a period of next 10-11 years. This is indeed a challenging task.

Regional concentration of steel capacities by 2025-26

As per NSP 2012 (Draft), regional concentration of steel capacities by 2025-26 is likely to be follows:

SI No	States	Likely steel capacity by 2025-26 (%)
1	Odisha	25
2	Chhattisgarh	13
3	Jharkhand	14
4	Karnataka	9
5	West Bengal	7
6	Others (Andhra Pradesh, Maharashtra, Goa etc)	32
	Total	100

Process route mix of steel capacities by 2025-26

The process route-mix of steel capacities by 2025-26 is expected to be dominated by BOF route with significant share of 67%, followed by EAF route (28%) and IF route (5%).

Requirement of Inputs & Infrastructure

In order to achieve 300 Mt crude steel output in the country by 2025-26, the annual requirement of inputs and infrastructure have been estimated as follows:

SI No	Items	Unit	Quantity
A	Annual requirement of inputs		
1	Iron ore	Mt	490
2	Coking coal	Mt	170
3	Non-coking coal for DRI/PCI	Mt	140
4	Steel scrap (for IF based units)	Mt	20
5	Limestone & dolomite	Mt	110
B	Infrastructure requirement for additional steel capacity by 2025-26		
1	Land	Acres	1,26,000
2	Water	Million m ³	1,100
3	Power	MW	22,000
4	Steel related railway traffic	Mtpa	800
5	Steel related port traffic	Mtpa	300

NB: Land requirement @500-600 acres per Mt. Power requirement @100 MW per Mt. Water requirement @5 m³/tcs although NSP-2012 (draft) aims @2 m³/tcs by 2025-26.

Key Issues

Key issues alongwith required strategies for accomplishing the National Mission of achieving 300 Mt steel output by the middle of the next decade are elaborated in subsequent sections.

Marketability of Steel Products – Indian Perspective

The potential drivers of demand for the steel products in India are transport (16%), construction (50%) and Capital & Consumer goods (34%). The following factors are expected to help increasing intensity of steel use in the country:

- a) Realization of massive investment in infrastructure (1 trillion dollar) as envisaged in 12th Five Year Plan especially in dedicated freight corridor, metro/mono rail, bridges, flyovers, ports etc.
- b) Anticipated growth in power and oil & gas sectors
- c) Implementation of national manufacturing policy aimed at increasing manufacturing growth rate to 11-12% by 2016-17 and raising its share in GDP from current 16% to 25% by 2025. The policy envisages creation of National Manufacturing Investment Zones (NMIZs) equipped with world class infrastructure to promote manufacturing activities in the country.
- d) Trend towards higher urbanization rates, rising middle class population with enhanced purchasing power for automobiles, white goods & other consumer non-durables.
- e) Thrust on tapping latent demand potential in rural market through investment in housing & social infrastructure, product customization by leveraging "frugal engineering concept", strengthening product distribution chain / retail outlet network, promotion of entrepreneurial skill among rural population as well as raising income / purchasing power of rural populace through pick up in agricultural growth / higher procurement prices for agricultural products, financial inclusion and efficient & effective implementation of various social welfare schemes.
- f) Rising consumption in the retail sector.
- g) Policy thrust for the country to emerge as Net Exporter through developing export market targeting Latin America, Africa and ASEAN region.

Raw material security

The indigenous resource position of iron ore (as on 1.4.2010) at 55% Fe cut-off is furnished as follows:

Units: Million Tonnes

SI No	Item	Reserves	Remaining resources	Total	Grand Total
1	Haematite	8094	9788	17882	28526
2	Magnetite	22	10622	10644	

Source: IBM, 2010

Iron Ore

If steel output in the country ramps up to reach 300 Mt by 2025-26, the Hematite reserves can last only for 6-7 years beyond 2025. The threshold / cut-off grade for haematite ore has been lowered from 55% to 45%. The fines generation is now increasing in Indian mines. The country witnessed large scale export (54% in 2009-10) of iron ore in the past causing environment degradation and illegal mining. In view to conserve the ore for future value-addition within country, exports have been discouraged through imposition of 30% export duty and differential rail freight mechanism.

There is need for resource augmentation through intensive & deeper exploration (>60 m depth & Fe cut-off<50%) and resource conservation through beneficiation / agglomeration / pelletization of increasing quantum of low grade fines & slimes for use in iron making. Indian iron ore has high alumina content and techno-economically viable beneficiation technology would need to be developed. To meet the increasing demand for iron ore, systematic developmental efforts need to be undertaken including creation of additional mining capacity, encouraging investment, issuance of environmental & forest clearances within specified time frame, grant and renew leases against credible mining plans and grant of fresh leases only against new norms that are in place for assessment of technical and financial capabilities of applicants. Preference should be given to value

adders in allocation of mineral concessions. In wake of fast depleting haematite ore, magnetite ore resources locked in western ghat of Karnataka has to be tapped through techno-economic viable underground mining technique (requires huge investment) without disturbing the ecology in the region. Further there is need for phased reduction in export of iron ore to moderate levels, strengthening of mine related infrastructure as well as strategic initiative for acquisition of overseas iron ore deposits.

Coking Coal

Coking coal reserve in India is 33.68 Bt (1.4.2011) including 17.68 Bt under proved category, prime coking coal being only 4.6 Bt. Indian coking coal has high ash and 80% of coking coal requirement of Indian steel sector is met through import which will further increase due to a number of new projects being planned based on BF-BOF route. Price volatility in international market has sharply eroded competitive position of Indian steel makers. Capability developing to beneficiate low grade coking coal with improved yield should be aimed through installing new washeries with state-of-the-art technology / expertise available internationally. There should be intensive exploration for prime coking coal (beyond 300 m) as well as exploitation of deep seated coking coal reserves through suitable underground technology. There should be phased deregulation of coal sector and demerger of CIL's coking coal mines to be offered to steel producers on competitive terms. Govt. would need to ensure speedy implementation of Jharia Action Plan for exploitation of prime coking coal. Despite growing domestic market and rising import dependence, production from captive coal mines has remained below potential due to delays in regulatory clearances and land acquisition. A well defined process prescribed time frame for statutory clearance needs to be developed. Strategic acquisition of coal assets overseas is being successfully done by some private steel companies. Ministry of Steel has set up a Special Purpose Vehicle, International Coal Venture Ltd (ICVL) with participation of CIL, SAIL, NTPC, RINL and NMDC for this purpose. PSUs are also independently scouting for coal assets abroad. Bilateral negotiations with respective Governments may also strengthen the success potential of Indian Companies in this direction. Non-coking coal reserve in India is 258 Bt (1.4.2011) – 100 Bt is of proved category. These also have high ash and being imported in limited way by sponge iron producers. There is need for long term fuel supply agreement between coal companies and steel / sponge iron producers.

The indigenous resource position of limestone & dolomite is as follows:

SI No	Items	Limestone		Dolomite	
		Reserves (MT)	Remaining resources (MT)	Reserves (MT)	Remaining resources (MT)
1	BF grade	930	12270	317	1672
2	SMS grade	219	1231	271	1700

Source: IBM, 2010

SMS grade reserves are confined in Rajasthan involving high incidence of transportation cost. Domestic reserves of SMS grade fluxes are limited and steel plants are also importing SMS grade limestone from Middle East region. Government would need to strictly ensure supply of SMS grade limestone to steel units without any diversion to cement units. Strategic acquisition of SMS grade limestone deposits in Middle East may also be explored by Indian steel companies.

Technology, Environmental Management and R&D

The Indian steel making technology is broadly categorized into three groups BOF (45% share), EAF (24% share) and EIF (31% share). Indian steel industry is characterized by a mix of old and new technologies with integrated and stand-alone mills. But the overall techno-economic performance of

Indian steel industry is below global benchmarks mainly due to poor quality of raw material/inputs, prevalence of obsolete technology and lack of R&D to overcome the technological gaps. Indian steel industry would need to adopt modern commercially available relevant technologies to achieve globally comparable business and product performance, partner with world leaders to acquire state-of-the-art technologies and process know-how, promote new technology in association with renowned equipment supplier / technology provider and develop new technologies / process / product through own research.

The draft National Steel Policy has outlined growth strategy for the Indian steel industry through sustainable development and set stringent strategic goals for the Indian steel sector as outlined below:

Parameters	Unit	Existing	Strategic goal by 2025-26
Specific energy consumption	G cal	6.3	4.5
CO ₂ emissions	t/tcs	2.5	2.0
Material efficiency	%	93.5	98.0
Sp. make-up water consumption (works excl. power plant)	M ³ /tcs	3.3	2.0
Utilization of BOF slag	%	30	100
Share of continuously cast production	%	70	95
Blast furnace productivity	t/m ³ /day	1.9	2.8
BOF productivity	No of heat/ converter/day	7800	12000
R&D expenditure as % of turnover	%	0.2	1.5

Indian steel industry would need to adopt measures like beneficiation of iron ore & coal and increasing use of agglomerated burden in blast furnaces. Technological innovations like stamp charging & partial briquetting of coal charge (PBCC), tall ovens/batteries, leak proof doors, coke dry quenching (CDQ) etc may be considered for extensive adoption for enhancing productivity, improving quality and reducing pollution.

In blast furnace, improvement in performance efficiency / consistency in hot metal quality / reduction in coke rate can be achieved through increasing the share of prepared burden feed (sinter, pellets, DRI & other metallic), incorporating technologies for injecting pulverized coal, top gas recovery turbine, use of waste heat stove gas for preheating of gas, high efficiency stoves, introducing copper stave, silicon carbide or other improved refractory system in high heat load areas, revamping/conveyerisation of stock house and screening efficiency of ore, sinter & coke, strengthening stoves capacity, increasing blast volume & flow rate, increasing oxygen enrichment of blast & hot blast temperatures, application of close circuit water for better cooling efficiency, increasing the inner useful volume by the use of superior quality refractories, augmentation of cast house facilities including powerful mud gun & drilling machines and installation of latest instrumentation, automation & control systems for improved process control. Large size Blast furnaces with the state-of-the-art facilities offer better productivity, consumption norms and hot metal quality. With installation of such furnaces in future, the need for agglomerated burden is likely to increase. Improvement in burden quality will facilitate higher PCI injection rates and thereby reduction in metallurgical coke requirement and overall fuel rate.

Non-coking coal gasification by the well-established coal gasification (Lurgi Technology) and use of syntheses gas thus generated (in lieu of natural gas) as reductant in vertical shaft furnace to produce

gas based DRI would need to be encouraged to mitigate the problem of non-availability of natural gas.

Indian steel industry has to achieve sustainable development through adoption of green / energy efficient technologies. FINEX, ITMK3, FASTMELT, HISMELT etc are some of the promising emerging green / smelting reduction technologies based on use of iron ore fines / non-coking coal. These technologies have eliminated coke making and agglomeration facilities. Their adoption will help in reducing dependence on iron ore lumps/imported coking coal and will also help in reducing harmful emissions. The relevance of these technologies has to be carefully assessed for compatibility in the Indian context.

Energy Needs

Over the years, energy intensity in integrated steel plants has been brought down substantially by improvements in raw material quality, processes and operational practices to current level of 6.0-6.7 Gcal/tcs. This is still higher than the 4.5-5.5 Gcal/tcs levels achieved by steel plants in other countries. The specific emissions of air pollutants like dust, SO_x NO_x in some Indian steel plants are still above 1.0 kg per ton of steel as compared to less than 0.5 kg per ton of steel in developed countries. A substantial reduction in specific air emissions may be possible with introduction of larger capacity units like sinter plants, blast furnaces, taller coke ovens, increased size of steel converter etc.

Water Requirement

Over the years, fresh water consumption for steel production has been brought down from 12-15m³/tcs to less than 5 m³/tcs, with some integrated steel plants consuming less than 3.0 m³/tcs. Water being a scarce resource, Ministry of Environment & Forests (MoEF) has emphasized on zero water discharge from industries, which may require innovative solutions for effectively recycling treated wastewater.

Waste Disposal

Due to high impurity levels in the raw material, currently volume of solid wastes generated in Indian steel plants is relatively high at 600-800 kg per ton of steel as compared to 400-500 kg in developed countries. The steel industry has been successfully converting these wastes into useful by-products for recycling or else for use as a raw material in other industries. For an effective environmental management in the steel sector, the thrust areas identified for implementation in 12th Plan include 100% usage of BOF & EAF slag by introduction of a product standard, reduction of fresh water usage to less than 4.0 m³/tcs in integrated steel plants and work towards achieving zero water discharge, 100% recycling of wastes to achieve zero wastes generation, reduction of process dust emissions to less than 1.0 kg/tcs, staged combustion in burners to reduce NO_x emissions, online monitoring of stacks in all plants and introduction of EMS (ISO-14001) in all sectors of steel making.

Environment Control

In the past few decades, Climate change has assumed high place on the global development discourse. The global commitments and high vulnerability of steel sector to the climate change has brought steel sector in the global spotlight. The steel sectoral CO₂ emissions are projected as 450 million tonnes by 2020 (12th FY Plan working group). It is felt that even after implementing energy conservation & efficiency improvement projects, the anticipated CO₂ reduction from the steel sector will still be higher. Thus there is a need to explore technologies like carbon capture & sequestration (CCS) and new routes to carbon free steel making technologies by leveraging soft financing advanced by the developing economies. Further installation of new technologies with higher capacities would contribute towards higher level of energy & environmental efficiency. There is need for "carrying capacity" approach in the land use for the steel plant, since over-burdening of the land use through steel plant clusters causes serious environmental damage. Voluntary initiatives like

corporate responsibility for environmental protection would also contribute immensely in this direction. There is also need to promote specialized training for environmental capacity building, renewable energy generation and altering the incentive structure in favour of zero waste generation and recycling of process wastes like dust, slag etc.

Design and Engineering Capability

There is a need to develop good design, engineering and manufacturing facilities in the country to mitigate long term dependence on imports of state-of-the-art facilities/equipment at phenomenal cost. This can be achieved through development of manufacturing centers by pooling of resources by steel companies through MOU with Government providing necessary incentives. Steel companies may associate with reputed equipment suppliers to promote new process development. Leading equipment manufacturers may also be encouraged to put their manufacturing base in India.

Investment in R & D

Investment in R & D in Indian steel industry has been very low in the range of 0.15-0.25% of the sales turnover. Until recently, the R & D activity in India has been carried out by National Research Laboratories / Academic Institutions and to a limited extent by the industry itself. The international developments in research have benefited the large steel producers and its benefits yet to be reaped by small steel producers. There is need to leverage Government grant for R & D through PPP mode to enhance R & D investment from the existing 0.15-0.25% of sales turnover to 1% by 2015-16 and 1.5-2% by 2025. R & D thrust in the Indian steel sector has to be in areas like environment management, energy efficiency, GHG reduction, beneficiation/ agglomeration / SR technologies for optimum utilization of indigenous natural resources, product development for defence, space research & nuclear energy, optimum land use in Greenfield projects etc. There is also need to develop indigenous capability for import substitution for special grade / value-added products like auto grade steel (dual phase, TRIP, AHSS, Ultra Fine Grain Steel, Nano Steel), electrical steel (CRGO/high grade CRNO), special grade boiler quality plates, API grade large dia pipes and special grades of eco-friendly pre-fabricated steel structures for high rise buildings / urban infrastructure etc. To a large extent the above issues can be addressed, if the few existing Research centres are developed into "centres of Excellence" by joint funding between Industry and Government under Private – public partnership. Steel Technology Centres would need to be created under PPP model in industrial sites for promoting market driven translational research customized for steel industry.

Infrastructure Needs

In order to achieve the envisaged production capacity the infrastructure parameter would need to be appropriately planned and implemented. The following infrastructure parameter would need detailed planning and effective implementation:

- a) Land
- b) Water
- c) Power
- d) Railways & Roads
- e) Slurry Transportation
- f) Coastal Transportation
- g) Port and Port Development
- h) Trade Policy issues
- i) Human Resource
- j) Project Implementation
- k) Financial Resources
- l) Government Facilitator

Conclusion

Post liberalization, the Indian steel industry entered an unprecedented dynamic phase of development. This has benefited many steel producers (Chiefly the private sector, in terms of new capacity additions). The multi-vector developments in the Social, political, economic, environmental and global spheres have thrown several challenges and opportunities for the Indian Steel Industry which is the fastest growing industry at the rate of above 5% globally. These forces have necessitated an urgent "collective engagement" & redoubling of efforts on part of the industry leaders, technocrats, bureaucrats, political leaders and all the stake-holding institutions to re-orient the existing industrial paradigm best suited for leveraging the opportunities and containing the challenges in a sustainable manner. The proposition of "Special purpose vehicle" along with the setting up of the "Ultra mega steel plant" is one such means to attain the desired end.

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Tata Steel sees pickup in European steel demand

Tata Steel Ltd looked to reviving European demand and infrastructure investment by the Indian government to boost sales in coming quarters after posting higher sales but a drop in net profit for April-June 2014. Net sales rose 11 percent to 361.43 billion rupees in the quarter to end-June, helped by a surge in European demand. The figure was in line with expectations for 361.16 billion rupees, according to Thomson Reuters data. Tata Steel's European business, the result of its \$13 billion acquisition of Britain's Corus in 2007, contributed roughly 57 percent to its total steel production of over 27 million tonnes in the last fiscal year to end-March. "Though demand remains well below levels we would regard as healthy, we can see greater stability emerging in the markets we serve," Karl-Ulrich Kohler, chief executive of Tata Steel Europe said, referring to the demand in the European region. The management of Tata Steel, a unit of India's Tata conglomerate, has been cutting costs and focussing on high-margin products to boost sales in Europe to cope with softness in the region's economy. ArcelorMittal SA, the world's largest steelmaker, also lifted its demand forecasts for Europe and for the United States, highlighting strong automotive and machinery sector demand. Tata Steel's fiscal first-quarter profit fell by 70 percent to 3.37 billion rupees (\$55.0 million), hurt by a 15.7 billion rupee impairment on its 35 percent stake in the Benga coal mines in Mozambique. Analysts on average had expected Tata Steel to post a profit of 12.21 billion rupees, but the estimate did not account for the one-time impairment charge. The steel firm had to take the hit after Rio Tinto, owner of the other 65 percent, agreed to sell it and other projects in Mozambique's Tete province, which it had bought via a \$4 billion acquisition of Riversdale Mining in 2011, for just \$50 million.

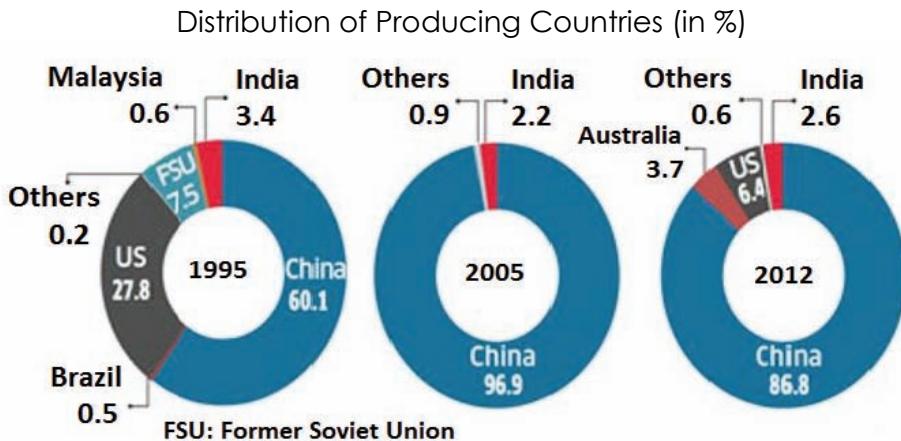
INDIA BUSINESS

Tata Steel, founded in 1907 and part of the Tata group that also owns British luxury carmaker Jaguar Land Rover, has long enjoyed strong margins in its Indian operations, because it mines most of the iron ore and coal it needs as raw material. Its domestic business has been hurt, however, by a clampdown on iron ore mining and controversy surrounding allocation of coal blocks to private companies. Tata sources iron ore for its domestic operations from its captive mines. The company said that while mining operations were suspended for a fortnight during the quarter following a Supreme Court order, there was minimal impact on deliveries of saleable steel from its mines. Tata Steel hopes to benefit from a pledge by newly elected Prime Minister Narendra Modi-led government's pledge to revive economic growth and boost infrastructure investments in Asia's third-largest economy. "The government's thrust on development of core industries like housing and infrastructure should boost steel demand," TV Narendran, managing director of Tata Steel India said in a statement. Tata Steel, which has a market value of about \$8.5 billion, ended down 1.4 percent at 534.50 rupees recently before the results were announced. The stock has more than doubled in the past year, helped by the revival of its European business.

Source: Business Standard

Chinese Hold on Rare Earths

Here's yet another example of Chinese dominance. Between 1966 and 1984 the US was the leading producer of rare earth elements (REE), with about 64% share. China, which had a global output share of 21% in 1985, now accounts for 87% of the REE global output. It started the world's first rare earths exchange some two months ago...



Rare earth elements form a group of 17 elements including the 15 lanthanides, plus Scandium and Yttrium. As the name suggests, they are rare, but their demand is growing with their increased use in the production of wind turbines, electric and hybrid vehicles, smartphones and laptops, and defence equipment.

Sources of iron ore reserves in India depleting – Experts

Factors like fast depleting sources of iron ore reserves with 62% to 65% iron content, along with cheaper and abundant availability of iron ore fines, and a government directive on the compulsory use of all mined ore with more than 45% iron ore content, have forced the mining and steelmaking industries to concentrate more on putting up fines beneficiation and pelletization plants. Mr AK Saxena, Jharkhand state-level expert appraisal committee chairman said that "There is a large need for beneficiation and agglomeration (of iron ore fines) to meet not only the country's current needs but also if India wanted to become the world leader in steel making." Mr Saxena said that over the last six decades, steel producers had been using high-grade iron ore and simply dumping fines, resulting in the availability of a huge quantum of iron ore fines currently. SAIL alone is said to possess around 80 million tonnes of iron ore fines at the dump yards of its various steel plants, apart from a huge quantum of ore fines available at its tailing ponds with iron content of 50% to 55%. Mr Saxena, who has had a long association with the steel industry, said another reason why beneficiation of ore fines was the need of the hour was because the economics of steelmaking now was tilted towards working with fines, as iron ore lumps with 58% iron content cost around INR 3,300 per tonne while iron ore fines with the same percentage of iron content cost INR 1,280 a tonne. The chairman of Jharkhand state level expert appraisal committee (on environment impact assessment) said availability of iron ore fines at low cost (compared with iron ore lumps) was also the reason why a number of small steelmakers, including Adhunik Metalliks, were setting up small pelletization plants of 1 million tonne per annum to 2 million tonne per annum. Mr Bhaskar Roy, IIM secretary-general, said that the revised target of producing 300 million tonne by 2030 set by the steel ministry would require 400 million tonne to 450 million tonne iron ore (with ore raising of around 500 million tonne), provided around 15% to 20% of the raw material requirement was met through metallic scrap. Mr Roy said that the country's hematite ore reserves, estimated at 7 billion tonnes, would last only around 15 years if the country was producing 300 million tonne steel a year, without exporting ore. He, however, said that an additional 7.6 billion tonne available as ore fines in various forms would sustain steel production for another 15 years.

Source: Steel Guru

IIM DC Quiz Contest "Metallica 2014"

A Quiz Contest "Metallica 2014" for school students was organized at *The Indian Institute of Metals – Delhi Chapter* on 1st August 2014. The basic objective of the Quiz Contest was to motivate and encourage senior level school students for associating themselves in future growth in the fields of Metallurgy & related disciplines. A set of model questions was circulated to the schools, in advance, to enable the students to prepare for the quiz.

The Quiz was sponsored by Steel Authority of India Ltd (SAIL), the biggest producer of steel in India, and M/s Outokumpu, a global leader in stainless steel.

A team of two students each of the following eighteen schools from National Capital Region of Delhi participated in the Quiz Contest:

- 1 Amity International School
- 2 Apeejay School
- 3 Bal Bharti Public School
- 4 Cambridge Foundation School
- 5 Delhi Public School
- 6 Delhi Public School
- 7 G D Goenka Public School
- 8 G D Salwan Public School
- 9 Maharaja Aggarsain Adarsh Public School
- 10 Mount Carmel School
- 11 N C Jindal Public School
- 12 R D Rajpal School
- 13 Ryan International School
- 14 St. George's School
- 15 St. Angel's School
- 16 St. Paul's School
- 17 The Srijan School
- 18 The Indian School

- Gurgaon
Pitampura, New Delhi
GRH Marg, New Delhi
Rajouri Garden, New Delhi
R K Puram, New Delhi
Sushant Lok, Gurgaon
Rohini, New Delhi
Rajinder Nagar, New Delhi
Pitam Pura, Delhi
Anand Niketan, New Delhi
West Punjabi Bagh, New Delhi
Dwarka, New Delhi
Rohini, Delhi
Alak Nanda, New Delhi
Rohini, Delhi
Hauz Khas, New Delhi
Model Town, Delhi
Sadiq Nagar, New Delhi



At the outset, Shri Anil Gupta, former Chairman, Delhi Chapter of IIM, welcomed the teachers and the students of schools who were participating in the Quiz Contest. He briefly described the activities being undertaken by the IIM fraternity. He also spoke about the importance of metallurgy in the industrial activity of our country. He also announced about the modus operandi of the Quiz Contest.

Shri Anil Gupta, Dr. Vipin Jain & Shri G I S Chauhan, Hon. Jt. Secretaries of Delhi Chapter and & Shri Gautam Bhatia, member of Executive Committee IIM DC conducted different rounds of the Contest.

The contest consisted of two phases. In the *Elimination round*, eighteen teams were administered a written test of 35 questions. After evaluation of the performance of the eighteen teams in the written test, the following four teams qualified for the final round.

- 1 Apeejay School



- 2 Cambridge Foundation School
- 3 G D Goenka Public School
- 4 R D Rajpal School

These four teams were administered various questions through three rounds, viz. Pass-on, Buzzer and Fire rounds. After completion of the All Rounds, Evaluation Committee (consisting of Shri G I S Chauhan, Shri Anil Gupta, Dr. Vipin Jain and Shri Gautam Bhatia) evaluated the performance of the four teams. Simultaneously, when the performance of the four teams was being evaluated, the interim time was utilized by Shri L. Pugazhenthy, Shri G I S Chauhan, Shri B R Thukral, Shri Gautam Bhatia, Shri P N Shali and Ms. Kiran Bamrara of Outokumpu by asking various Open-House questions from students relating to metals and minerals industry. A cash award of Rs. 200/- each was given to the students who gave correct answers.

After evaluation of the performance of the four teams, the team of two students namely **Arya Deepesh & Siddharth Sadhu** from **Cambridge Foundation School** was adjudged the **Winner Team**. The team consisting of **Aakash Varshney & Anshul Mandawat** from **Apeejay School** was declared the Runner-up team.

The winning team was given a cash prize of Rs.5000/- A prize of Rs. 3000/- was given to Runner-up team. Rs. 1000/- each was given to the remaining two participating teams in the Final Round viz. G D Goenka Public School and R D Rajpal School, as Consolation Prizes. These awards were sponsored by Outokumpu. SAIL also gave attractive gifts to these four teams including their respective teachers.

All individual students from eighteen participating schools, were given Certificates of participation. In addition, teachers of all the participating schools were handed over suitable mementoes for retaining in their schools on behalf of IIM Delhi Chapter.

The quiz event was suitably photographed.

For the last few years IIM DC has been organizing the Quiz Event every year. This is the first time that as many as eighteen schools have participated in the Quiz Contest.

The winning team consisting of **Arya Deepesh & Siddharth Sadhu** from **Cambridge Foundation School** along with an accompanying teacher to be nominated by this school will be sponsored for Prof. Brahm Prakash Memorial Materials Quiz to be held at Kalpakkam on 20th September 2014. To and fro travel expenses (limited to AC 2 Tier train fare) of the team & the accompanying teacher will be borne by Delhi Chapter. Kalpakkam Chapter would take care of local hospitality.





Several members of the IIM DC and the Executive Committee members participated in the event. About 80 persons participated in the Event.

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SAIL interested in acquire majority stake in Neelachal Ispat - Steel Ministry

Business Standard reported that SAIL has evinced interest in acquiring majority stake in Neelachal Ispat Nigam Limited with plans to raise NINL's capacity 5-fold from nearly a million tonnes per annum. Steel Ministry said that "SAIL has taken up with Ministry of Commerce/Government of India for possibility of acquiring majority stake in NINL in Jeypore, Odisha." The Steel Ministry said that "SAIL has reiterated its plan to develop NINL into a 5 million tonne per annum steel plant, in phases, from the current capacity of 0.9 million tonne per annum." The Steel Ministry said that the acquisition will facilitate realization of the full potential of NINL as a profitable integrated steel plant. It said that "It will help in enhancing SAIL's growth and market share, besides providing an access to a port-based plant and captive iron ore deposits which could be gainfully utilized." NINL, a company jointly promoted by MMTC and Industrial Promotion and Investment Corporation of Orissa Limited, has a pig iron manufacturing facility in Odisha. MMTC is under the administrative control of the Commerce Ministry. NINL also produces LAM coke used by the steel industry. It has a 62.5 MW captive power plant to meet captive needs. The company has been allotted an iron ore mine at Koira having an estimated 110 million tonnes reserves.

Source: Steel Guru

ArcelorMittal says India set to become 2nd largest steel producer

PTI quoted steel giant ArcelorMittal as saying that India's economic prospects have improved and is likely to see major reforms as the coalition era has ended with the new government's majority in the Lok Sabha. ArcelorMittal said that India is poised to become the second largest global steel producer, and mergers and acquisitions in the country's steel sector are likely to "remain active". The company said that "Economic prospects have improved in India as the incoming government has won a Parliamentary majority in the Lower House, which breaks the long run of coalition governments, and is expected to allow for significant economic reforms." It said that the growth prospects in the country are bright. It added that the country has become the world's third largest steel consumer after China and the United States and is expected to become soon the world's second largest steel producer worldwide. It further added that the merger and acquisition activities are expected to remain active in the Indian steel and mining industry though at a lower pace

considering the current economic slowdown. It may be noted that ArcelorMittal's proposed INR 50,000 crore project in Jharkhand is stuck for over 8 years now for want of regulatory clearances and land acquisition. It had scrapped INR 50,000 crore project in Odisha last year on account of problems in land acquisition and securing ore linkages. The company had recently said that it continued to pursue greenfield projects in Jharkhand and Karnataka.

Source: Steel Guru

ArcelorMittal benefits from steel demand rise, restructuring

The 2008-09 financial crisis dragged the world into a recession and put paid to the ambitions of many steel groups, including a few in India, to have global production footprints. Though European steel demand has started reviving, primarily due to an improved show by the automobile and appliances sector, Tata Steel Europe is not out of the woods yet, despite some major restructuring and permanent resting of capacity. ArcelorMittal remains an exception in the global steel sector, as ahead of the recession, it had emerged as a global steel behemoth, with significant presence in Europe, thanks to the company's chief Lakshmi Mittal successfully fighting an epic battle to acquire the Luxembourg headquartered Arcelor, highly rich in capacity and technology. ArcelorMittal continues to acquire and build new capacity, but with more discretion than in the past. Demand recession and low prices saw Mittal, till recently, engaging in shutting unviable plants, braving opposition from unions and host governments. The market left him with no alternative but to cut the size of group operation in line with the changing demand. The spirited restructuring, including restarting select steel projects, has improved the profitability of the company's steel business. As it is the only steel group with major global presence, including in China through a joint venture, it is the bellwether for the global steel sector, as Alcoa of the US is for aluminium or BHP Billiton is for mining. Therefore, the announcement of ArcelorMittal's results and estimates are awaited with much interest by steelmakers everywhere.

But have Mittal's initiatives such as scaling back capacity, focusing on innovative solutions with steel products for sectors such as automotive and energy and staying on a relentless drive to cut production costs, on occasions ruffling union feathers, started paying results? Yes, going by the group's results for the quarter ended June this year. For the first time since 2012, the company had a profitable quarter, with net income at \$52 million, compared with a \$780-million loss in the corresponding period last year. The improvement, which an analyst with Macquarie appropriately describes as "baby steps, rather than leaps", is due to the group benefiting from a rise in demand in the developed markets of Europe and North America. These two regions account for two-thirds of ArcelorMittal's steel shipments. The group's iron ore business, both in terms of production and shipments at market prices, continues to make progress, as expected. Market-price ore shipments rose to 10.5 million tonnes (mt) in the June quarter from 8.2 mt a year earlier. But benefits that should have accrued from increased shipments were offset by the lower than anticipated iron ore prices. Earlier, credit was taken for an annual average iron ore price of \$120 a tonne for ore with 62 per cent iron content. As this has now been revised to \$105 a tonne, with realisation for the second half of this year pegged at \$100 a tonne, ArcelorMittal has scaled down the estimate for 2014 earnings before interest, tax, depreciation and amortisation (Ebitda) from \$8 billion to \$7 billion. Declines in ore price falls, largely due to new supplies coming in, particularly from Western Australia are, however, no distraction for the company to expand its minerals business. The second phase of its Liberian iron ore project, entailing 15 mt of premium sinter feed, is underway. In the meantime, the company has reached agreements with Billiton and a unit of Areva of France to buy their stakes in the Mount Nimba ore project in Guinea, with estimated reserves of 935 mt and iron content of 63.1 per cent. The development is another confirmation of ArcelorMittal's plan to have a bigger profile in the iron ore space, which is modest in size in comparison to the group's steel operations.

GOOD GOING

Half-yearly performance (figures in \$ mn)

	2013	2014	Growth %, YoY
Revenue	39,949.00	40,492.00	1.36
Ebitda	3,304.00	3,517.00	6.45
Net loss	-1,116.00	-73.00	-
Adjusted EPS	-0.55	-0.05	-

Source: Bloomberg

Compiled by BS Research Bureau

The mined ore is usually sold at market prices and also used by ArcelorMittal mills. The Mount Nimba project is a smart acquisition, as it leverages the company's existing presence in the region. More, capital and operational cost in Guinea will be low, as the Liberian rail road and port will be used to evacuate Mount Nimba ore. Iron ore prices may have tumbled on supply pressure, but mining powerhouses such as Rio Tinto and Billiton remain committed to ramping up production of steel-making ingredient, as this still generates 30 per cent profit margins. The question is whether ArcelorMittal is part of the lowest cost quartile of ore diggers. What is inspiring for ArcelorMittal is the \$7-a-tonne improvement in steel Ebitda in the June 2014 quarter compared to the corresponding period last year, owing to demand and price increases, particularly in Europe and North America, where Ebitda rises were \$19 and \$11 a tonne, respectively. Profitability in the steel business in developed markets is improving. Global steel demand, on which China has an overbearing influence, is set to increase 3-3.5 per cent. What is helping ArcelorMittal is the expected six per cent rise in demand in the US and four per cent in Europe. All indications point to a further improvement in the steel market. That should make it possible for ArcelorMittal to pare its debt to \$15 billion from \$17.4 billion at the end of June.

Source: Business Standard

Indian steel industry needs finance support from government - RINL CMD

Mr P Madhusudan CMD of Rashtriya Ispat Nigam Limited said that the central government should create a specialized institution on the lines of the Power Finance Corporation to raise and provide long-term finance for steel industries to expand their capacity. Mr Madhusudan said that long-term finance at affordable rates is necessary for the growth of the steel industry in the country. He said that "Expansion of 1 million tonne capacity requires nearly INR 4,000 crore to INR 4,500 crore, if the country is looking at increasing steel capacity by around 200 million tonnes in the next decade, the steel industry will need around INR 8,00,000 crore by way of finance." He added that the government needs to look into the need for such an entity to raise finance for the industry if the country has to achieve a production capacity of around 300 million tonnes by 2025.

Source: Steel Guru

Steel majors form India Steel Association, SAIL Chairman CS Verma first head

Major domestic steel producers came together to formally launch an industry body, the Indian Steel Association (ISA) recently. The meeting was attended by industry leaders from SAIL, Tata Steel, JSW, RINL, JSPL, Essar in the presence of Mr. G Mohan Kumar, Secretary, Ministry of Steel. CS Verma, Chairman, SAIL was unanimously elected as the first President of the Indian Steel Association and Sajjan Jindal, Chairman & Managing Director, JSW, Mr. TV Narendran, MD, Tata Steel, P Madhusudan, CMD, RINL will be apex committee members. The membership of ISA will be open to any steel producer with a yearly capacity of at least 2 million tonne. The association aims to work towards transforming the Indian steel industry as a global leader acclaimed for its Quality, Productivity & Competitiveness. Steel producers with capacity less than 2 million tonnes can be affiliate members. The ISA received a shot in the arm soon after its creation through recognition from World Steel Association during the meeting. A certificate to this effect was presented on behalf of Chairman and Board of Directors of World Steel Association. Dr. Edwin Basson, Director General, World Steel Association, was present during the meeting and he outlined the role and responsibilities of such an association in a competitive scenario. In the meeting, Secretary Steel, G Mohan Kumar, in his address to the association, stressed that the members of the association were expected to work with cohesion, collaboration and coordination to deal with the common issues of concern of the Indian Steel industry. Verma mentioned that he looked forward to work along with the other members so that the Indian steel industry plays a catalyst role in the economic growth of the country.

Source: The Economic Times

RINL to get Star Performer Award 2012-13

Adding another feather in its cap, Rashtriya Ispat Nigam Limited, the corporate entity of Visakhapatnam Steel Plant, has been selected by the Engineering Export Promotion Council India, for

'Star Performer Award' amongst major industries for outstanding export performance during 2012-13 in basic iron and steel exports. It is sponsored by the Union Ministry of Commerce and Industry. The regional chairman, EEPCL India, informed RINL CMD Mr P Madhusudan about the selection of the RINL for the award. While congratulating the marketing collective headed by RINL director (Commercial) TK Chand, Mr Madhusudan said that the award reflected the strategic marketing initiatives implemented by the company from time to time. It may be mentioned that the RINL is further stepping up its international marketing operations in the present fiscal with the formation of separate international trade division (ITD) in the RINL marketing department and opening of international marketing office in Colombo, Sri Lanka, and market for the RINL products in the Middle East and Africa. The RINL will receive the award at a ceremony to be held soon in Chennai.

Source: Steel Guru

Centre to examine Odisha proposal for SAIL takeover of NINL - Mr Tomar

Mr Narendra Singh Tomar, Union Steel and Mines Minister said that the Centre would seriously examine Odisha government's proposal for steel behemoth SAIL is taking over Neelachal Ispat Nigam Limited. Mr Tomar said that "CM Mr Naveen Patnaik gave some suggestions when we met recently. One among the proposals was that SAIL should take over NINL." Stating that there was a detailed discussion on the proposal with the CM and officials, Mr Tomar said that it will be examined and considered seriously. On MMTC, which owns the majority stake in NINL, the Union Minister said the matter would be discussed across the table and some mechanism evolved. He said that since the suggestion for merger has come from the CM, the Centre would take appropriate steps in this regard. NINL, jointly promoted by MMTC Limited, Industrial Promotion and Investment Corporation of Orissa Limited (IPICOL) and other government agencies, has an 1.1 million tonne iron and steel plant at Kalinganagar, Duburi in Odisha's Jajpur district. NINL also produces LAM coke used by the steel industry. It has a 62.5 MW captive power plant to meet captive needs.

Source: Steel Guru

Unfortunate that steel, iron-ore are imported: Narendran

Pitching for proper utilisation of resources, Tata Steel MD (India and South East Asia) T V Narendran today said it is "unfortunate" that steel and iron ore are being imported by a country blessed with rich mineral reserves. "It is really unfortunate that we are importing steel and iron-ore whereas we have abundance of the mineral in the country," Narendran said. Talking to media-persons soon after he unfurled the tricolour on the occasion of 68th Independence day inside Tata Steel works here, Narendran said we could generate employment and play a role in the development of the country, if the mineral was utilised properly. Narendran said steel plants are being established in the periphery of iron-ore mines because of advantages like access to raw material and lower transportation cost. Earlier, delivering his speech, Narendran said the steel segment has recorded a stupendous growth in the last two/three decades. Referring to the increasing demand for iron-ore, Narendran said a couple of decades ago, the cost of iron-ore per tonne stood at around USD 20. A decade later, the value of the mineral may not be worth as it is today, he added. The top Tata Steel official claimed that the private steel major has been an example as industrial enterprise maintaining the right balance among its shareholders, employees as well as communities and upheld the democratic values while playing a role in the development of the country.

Source: Business Standard

Vedanta CEO says 30% iron ore export is duty counter-productive

London-listed global metals and mining giant Vedanta Resources has joined the growing list of corporates openly criticizing the existing export duty of 30% levied on iron ore exports from India. The high duty, particularly for lower grade ores which are currently not of any value to the domestic steel sector, is counter-productive, Vedanta CEO Tom Albanese told Business Standard.

"Once the mining bans are lifted, the heavy duty would restrict the amount of iron ore or the quality of iron ore that could be exported. So, the actual exports would be lower and the tax take would be even less," Albanese said in an interview, adding the heavy duty is part of what the industry,

including Vedanta, has told the government as issues holding up industry's potential. Until 2012, India levied 5% duty on exports of fines and 15% on exports of iron ore lumps. The flat 30% export duty was imposed in December 2012 to conserve the key steel-making raw material for the domestic industry. However, with the global prices crashing and restrictions on mining imposed in several states, steel majors are opting for cheaper imports. India's iron ore exports have progressively dropped from 117.3 million tonne in 2009-10 to 12.2 million tonne in 2013-14. The mineral's production has also come down from 218.6 million tonne to 145.4 million tonne in the same period neutralizing the benefits of lower exports for the domestic steel producers. At the same time, in order to offset the scarcity due to lower production, steel firms have resorted to imports which shot up to 1.87 million tonne in 2010-11 and then came down to 0.37 million tonne in 2013-14. The fall in ore output is due to restrictions imposed in Karnataka and Goa along with output curbs by Odisha. The country produced 200 million tonne of ore a year and exported 50% of it before the Supreme Court imposed a ban on exploration in Karnataka to curb illegal mining in 2011. Albabnese said India would find it difficult to claw back its lost share in the international ore export market as production picks up domestically if the high duty is not abolished. Vedanta subsidiary Sesa Sterlite is among the firms severely impacted by the ban in Goa with production impacted.

Source: Business Standard

Copper continues to shine for non-ferrous companies

Though London Metal Exchange (LME) prices for copper have been on a downward spiral, the sustenance in treatment and refining (Tc/Rc) charges are helping metal makers to stay in a comfort zone. Hindalco Industries, for instance, reported a 29 per cent drop in net profit for the second quarter but its earnings before interest and tax (Ebit) for the copper business shot up 175 per cent. In the quarter ended September 30, Ebit from the copper business for Hindalco was Rs 209 crore, against Rs 76 crore in the first quarter.

Praveen Maheshwari, chief financial officer, Hindalco, on the sidelines of a meeting, told Business Standard the Tc/Rc rates for copper refining are expected to be firm in the near future as well. He did not quantify the expectation for these rates, however. LME rates for copper have been falling and, at \$7,692 per tonne, are at their lowest in close to two months. Prices fell 8.21 per cent from that peak of \$8,380 on September 14 on hopes from QE3 (quantitative easing) being announced. An analyst tracking the metal said:

"Prices are better now when compared to last year or even the first quarter. That's why on a sequential basis companies are making more money on copper refining and treatment."



For Sterlite Industries, which makes copper apart from other metals like aluminium, zinc and lead, the brown metal's profit after tax (PAT) jumped 62 per cent in the second quarter on a year-on-year (y-o-y) basis. In the first quarter of the financial year, its PAT was Rs 96 crore against Rs 475 crore in the second quarter. However, a forex gain of Rs 161 crore is also a prime driver for this profit. The Tc/Rc rates for Sterlite in the second quarter actually fell 13 per cent y-o-y. Sequentially, going according to the trend, the Tc/Rc rates for Sterlite were up by 12.4 per cent. Companies are hoping the Tc/Rc charges for the next year will be fixed at least at \$70 a tonne against \$60-63 a tonne in the current year. This could mean higher charges for companies like Hindalco which refine and treat copper, and better profitability against the subdued aluminium business. However, if indications for the next year are anything to go by, the picture doesn't look as appealing. Media reports suggest BHP Billiton has offered \$60 a tonne to the copper refiners for the next financial year. What turn the negotiations take will have to be watched closely.

Source: Business Standard

Zinc could soon be back in zinc

Mine closures and slower pace of capacity addition will add to demand-supply squeeze.

While most industrial metals have posted solid gains of late, zinc continues to be a laggard and is

headed nowhere. It continues to trade in a broad range between \$2,100 and \$1,820 a tonne. The story of the zinc market being in deficit has been around since the start of the year. However, this hasn't caught the frenzy of market participants as they are still eyeing high zinc inventories. There are a lot of players sitting on the sidelines waiting for the momentum to set in and participate in the move, as rallies in zinc are sharp and rare. The year started with zinc prices heading north, but then they pulled back alongside copper on concerns that collateralised copper held against bank loans in China's shadow banking industry might be liquidated. Since zinc has also been used as collateral, it too fell, with both metals retreating around 10 per cent. The situation echoes rising premiums in the aluminium market, where costs to obtain physical materials have once again risen following a brief slowdown. Premiums for metal in Singapore warehouse have climbed to \$170-185 from \$160/tonne in July 2014.

Declining supply

Global mine output rose by one per cent year-on-year to 13.20 million tonnes (mt) in 2013. Increases in China, US, Peru and India were offset by fall in output at Canadian and Peru mines. Refined production rose 2 per cent to 12.90 mt, where Chinese output grew 4.5 per cent offsetting slowdown elsewhere. Chinese output slowdown is a worrying factor, as from 12 per cent in 2012 it dropped to a meagre 4.5 per cent, whereas it continues to be the largest consumer of the metals accounting to 45 per cent of the total demand. Chinese mine output increased 9.8 per cent, while metal output increased 5.7 per cent. The shock comes from sudden mine closure in the last couple of years, where three of the 10 top zinc mines are going off stream, and the contribution from these mines would be close to 12 per cent of the total output. Ramp up of new projects during the year is expected to increase mine output and offset some fall in output due to scheduled closure of major mines later during the year. Century, which is one of the biggest zinc mines, will stop production in mid-2015 which could have a serious effect on the supply. There are a few mid-size mines which are expected to start production, but that will not happen until mid-2015, making the zinc market situation tight for 2015. In the hindsight, the prospect of vast quantities of zinc being released into the market from China is a real threat, as the metal's role as collateral for a range of financing activities comes under greater regulatory scrutiny.

Demand soars

Zinc demand rose 4.7 per cent y-o-y in 2013 to 12.98 mt, with major consumer being China with a 70 per cent rise in consumption. Demand in China climbed 7.6 per cent in 2013 to 5.748 mt, while production was 5.1 mt, creating a deficit. Roughly, China consumes 45 per cent of global zinc, Europe 17 per cent, US 7 per cent and Japan 4 per cent. So, the start of a recovery in Europe will be a significant development for the zinc market. The latest forecast shows a rise of 4.5 per cent in zinc demand, amounting to 13.58 million tonnes. Demand may, however, struggle to reach this level. With Chinese growth rates slowing and credit being restricted, demand for zinc and metals, in general, may well suffer more than is currently expected. But aggressive steps to stimulate the economy may make up for the loss. European demand which was subdued last year may see a recovery particularly from the auto industry. Auto sales have been picking up and are closer to peaks seen in 2007. Robust growth in demand can be expected if the construction and housing sector start to contribute along with auto. At the moment, things are pretty balanced; but as we move ahead, mine closures and slower pace of addition will start to add to the demand-supply squeeze. Market is now focused on ILZSG data, which shows a deficit from a surplus earlier in the 2013. ILZSG reported a supply surplus of 38,000 tonnes in January-September, but a 2,000-tonne-deficit in January-October in its December release. The latest data now suggests the zinc market was in a deficit of 68,000 tonnes in 2013, with January this year in a deficit of 60,700 tonnes. LME zinc stocks fell to a low of 7,00,000 tonnes in the first quarter from 9,31,000 tonnes at the end of last year. The drawdown was thought to be partially due to metal moving to China. Stocks in Shanghai also stand at a 5-year low at 2,25,468 tonnes. Although LME stocks have been trending lower, there is still a lot of metal as much of it has been parked into off-market financing deals, which may someday come into actual use.

Outlook

Going by the current speed of global growth recovery, zinc demand should remain steady. A spate of mine closures scheduled from the middle of next year looks set to become an increasingly-significant price driver. Global metal consumption looks set to gallop steadily higher; and output from key mines is not likely to be replaced for some time, making it a solid price appreciation story. We see a possibility of zinc outperforming other industrial metals over the next few months. Although the above case puts up a strong case for a rally in zinc prices, but given high stocks and the potential for off-market metal to return later in the year, rallies are expected to be under check. Zinc prices are expected break past the consolidation, and can head towards \$2,200 and eventually towards \$2,320. This move will not unfold immediately, but gradually as we enter into the next quarter, we might see the next quarter, we might see the story unfolding. On the MCX, a dip towards Rs 116 should be used as an opportunity to accumulate targeting Rs 137-141 on the upside.

Source: The Hindu

Gold jewellery imports up 10% in April-June

The tough import norms and high premium on gold in the April-June 2014 quarter saw India's imports of gold jewellery rise 10 per cent at Rs 696.44 crore. According to Gem & Jewellery Export Promotion Council (GJEPC), the premier industry body, during the period, exports of gold jewellery, including gold medallions and coins, rose 27.5 per cent to Rs 11,676 crore. "The premium prevailing in the domestic market in the first-half of the quarter was very high, hovering at around Rs 200 per gram in April 2014. However, after gold imports were somewhat eased in May, the premium fell drastically," Vipul Singh Chairman, GJEPC, told this correspondent. Pankaj Parikh, Vic-Chairman, GJEPC, said the premium was now around Rs 10 per gram. "Import during the quarter were largely of crude bangles of 24 carat gold which did not find much favour." India is the world's largest importer of the yellow metal and also the largest consumer of gold jewellery. The jewellery industry was impacted by the Reserve Bank of India (RBI) move in July 2013 to introduce the 80:20 scheme, which required gold importers to re-export 20 per cent of the incoming gold to address the high current account deficit (CAD). The resultant shortfall in supply had led to a phenomenal rise in the premium on gold in the market and a spike in gold smuggling. The RBI had, on May 21, eased the norms for import of gold by allowing star trading houses along with some banks to procure gold and meet the shortfall in the domestic market. Import duty on gold continues at 10 per cent, which the industry had hoped, would be reduced. Mr. Shah, however, was cautious saying "the authorities have said they are not comfortable with the CAD position as of now so we expect any announcement with regard to duty reduction to take some time. While total gem and jewellery exports had risen 7.71 per cent to Rs 50,334.9 crore during the quarter, Mr. Shah expected exports to pick up, albeit slowly. "The domestic market, too, is quiet now, and like the gold prices, it is consolidating," he said.

Source: The Hindu

MMTC-PAMP to refine 78% more gold in FY15

Company to refine 100 tonne silver this year

MMTC-PAMP India said recently it aims to refine 80 tonne of gold in the current fiscal, up 78% from last fiscal, as global miners are keen to supply raw materials after the Indian gold refiner received international accreditation. MMTC-PAMP, a joint venture between PAMP SA Switzerland and MMTC, had refined 45 tonne gold in last year. "We are targeting to refine 80 tonne gold this year. We will be able to refine more gold because global miners are showing increasing interest to supply raw material to us." MMTC PAMP Private Rajesh Khosla told reporters. The company aims to utilise its entire installed capacity of 150 tonnes of gold by next year, he added. As far as silver is concerned, Khosla said the company targets to refine 100 tonne in this year, as against 25 tonne in 2013-14. It would utilise 75% of its total silver refining capacity of 600 tonne by next year. MMTC PAMP, which started commercial production from April 2012, could not utilise its installed capacity due to problems in sourcing raw materials. "So far, sourcing raw materials was an issue as global miners were reluctant to commit regular supply. However, the situation has changed after getting the international accreditation early this year," Khosla said. MMTC-PAMP is the first Indian gold refiner to get

international accreditation from the London Bullion Market Association. Now, India is being looked upon as more secure place as lot of accredited refineries are shutting down in the western world.

Source: Financial Express

Electrical, electronic uses to increase silver demand

Electrical and electronic uses have the potential to add another 20 million ounces of silver to total demand by 2018, according to a study prepared for the Silver Institute by the London-based consultancy Metals Focus. The report identifies three key potential growth areas for silver demand: flexible electronics, light emitting diodes and interposers. The report forecasts gains in silver use for flexible displays, which incorporate silver and can be found in tablets, cell phones and e-readers. The report indicates a rise in LED demand, driven by falling costs and increasingly stringent lighting energy legislation that will accelerate LED adoption. Interposers enable far greater functionality in the next generation of semiconductor chips, the report says.

Given the greater technical demands made of interposers, glass, with the addition of silver, is being considered as an alternative material. Metals Focus maintains that should glass – and therefore silver – prevail as the interposer technology of choice, silver demand would benefit. The report also lists potential for gains in silver use in ethylene oxide production, which is a key building-block chemical in the production of detergents, solvents and plastics. Additionally, silver use in photovoltaics for solar power may well surpass its previous demand peak, registered in 2011, as early as 2016-17. "With the introduction of these advanced uses of silver in the electrical and electronics category, which last year provided over 40% of total silver industrial demand, along with growth in established uses, we should see silver industrial demand develop even further, especially as economies grow globally," says Michael DiRienzo, executive director of the Silver Institute.

Source: MMR

Domestic availability of mined uranium inadequate

The domestic availability of mined uranium is currently inadequate to meet the requirements of the existing nuclear power plants and production of the element in the country would be augmented, the government informed the Lok Sabha recently.

In a written reply, Minister of State for PMO Jitendra Singh Said, "Domestic availability of mined uranium is currently inadequate to meet the entire requirement of running of the existing NPPs at full generating capacity."

He said in the coming years, augmentation of uranium production in the country will be carried out by maximising production from the existing facilities through Uranium Corporation of India Ltd (UCIL), a PSU under the control of Department of Atomic Energy.

Source: Minerals & Metals Review

Silver Demand Plunges 75% in Current Fiscal

Traders blame poor monsoon and robust equity market

Demand for silver has plunged as much as 75% in India since the beginning of this fiscal even as prices have fallen almost Rs 4,000 per kg to Rs 43,000 compared to the previous year, a trend that traders blame on the deficient monsoon coupled with a robust equity market. India imported about 4,000 tonnes of silver last year, spelling average monthly import of about 330 kg per month, said Prithviraj Kothari, vice president of Indian Bullion & Jewellers Association. But since April this year, monthly imports of silver have averaged just about 70-80 tonnes as demand has eroded sharply. "The worst months have been May, June and July and the trend is still continuing in August as well," said Kothari. Delayed and below average monsoon has been the major spoilsport for silver, the poor man's gold. During years of good monsoon, farmers start buying silver in small quantities to create an asset for themselves. The major buying takes place during harvesting which coincides with Diwali and the festive season. "Prices are low, yet there are no buyers in the market. I only sell silver rings, but this year there is no demand for this type of small item also," lamented Vijay Soni, owner of Jaipur-based Kalyan Fancy Jewellery Store.

Bullion traders rue that investment demand for silver has almost dried up. "There is a lot of negative sentiment both for gold and silver. Actually investors are moving away from commodities, affecting the offtake of both the precious metals. The industrial demand for silver has also not picked up as the economy is yet to recover fully from the slowdown," said Amit Sampat, director, Pushpak Bullions. Silver is increasingly used in a variety of devices and applications, from computer chips to solar power generators. But Mukesh Kothari, director of Riddisiddhi Bullions is hopeful that prices of silver will climb to Rs 50,000 kg during the festive season. "Investors should look at silver now as it is a good instrument to park funds," he said. South India, a major market for silver, largely for use as deities and utensils, has also not seen growth even though prices have fallen. Demand for silver has dropped more sharply than it has dropped more sharply than it has in case of gold, said LM Srinivasalu, a Chennai based silver merchant. "Nowadays people are not keen to keep silver deities in their homes due to safety concern, which is affecting silver demand. There are no major purchases because of speculation that prices will fall further. Exports of silver items too have dwindled. We were exporting tableware to the US and Australia, but demand from these countries has come down," Srinivasalu added.

Source: The Economic Times

Oldest metal object found in woman' grave

Archaeologists have unearthed from a woman's grave in the Middle East the world's oldest metal object ever discovered. A cone-shaped copper awl was discovered in Tel Tsaf, an archaeological site in Israel's Jordan Valley. "The appearance of the item in a woman's grave testifies to both the importance of the awl and the importance of the woman. It is possible that we are seeing here the first indications of social hierarchy and complexity," explained Danny Rosenberg, an archaeologist at University of Haifa. The copper awl dates between 5100 BC-4600 B.C. The discovery was detailed in a paper that appeared in the journal PLOS ONE. – IANS.

Source: The Hindu

The Secret to living is giving

One way to judge a person is by what they say. A better way is by what they do. The best way is by what they give. Elizabeth Bibesco said, "Blessed are those who can give without remembering and take without forgetting." The big problem is not the haves and have nots-it's the give nots.

Charles Spurgeon said, "Feel for others-in your wallet." An Indian proverb says, "Good people, like clouds, receive only to give away." The best generosity is that which is quick. When you give quick it is like giving twice. When you give only after being asked you have waited too long.

Whatever good that happens in your life is not so you can keep it all to yourself. Part of it is intended to be given to others. E.V. Hill said, "Whatever God can get through you, He will get to you."

The book of Acts says, "It is more blessed to give than to receive." Giving is always the thermometer of our love for others. Eleanor Roosevelt said, "When you cease to make a contribution, you begin to die." Getters don't get happiness. Givers get it.

When you live for others, it's the best way to live for yourself. There is always room at the top for anyone who is willing to say, "I'll serve." John Wesley advised, "Make all you can, save all you can, give all you can." That's an excellent formula for a successful life.

When it comes to giving, some people stop at nothing. The trouble with too many people who give until it hurts is that they are so sensitive to pain. Greed always diminishes what has been gained. Mike Murdock says, "Giving is proof that you have conquered greed."

If you have, give. If you lack, give. G. D. Bordmen said, "The law of the harvest is to reap more than you sow." It is true: people who give always receive. Selfishness always ends in self-destruction. John Ruskin hit the nail on the head when he said, "When a man is wrapped up in himself, he makes a pretty small package."

Henry Drummond said, "There is no happiness in having or in getting, but only in giving." The test of generosity is not necessarily how much you give but how much you have left. Henry Thoreau said, "If you give money, spend yourself with it." What you give, lives.

This is the third of series of "Nuggets of truth" which are our sound food for soul. Get ready to blow the lid off our limited Thinking & create your recipe for happiness & success.

Compiled by Shri K L Mehrotra
Vice Chairman – IIM-DC & Former, CMD – MOIL

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