

Raw Materials Scenario : Procurement Strategy for Indian Steel Industry

Paper Presented in 7th Asian Steel conference, Mumbai

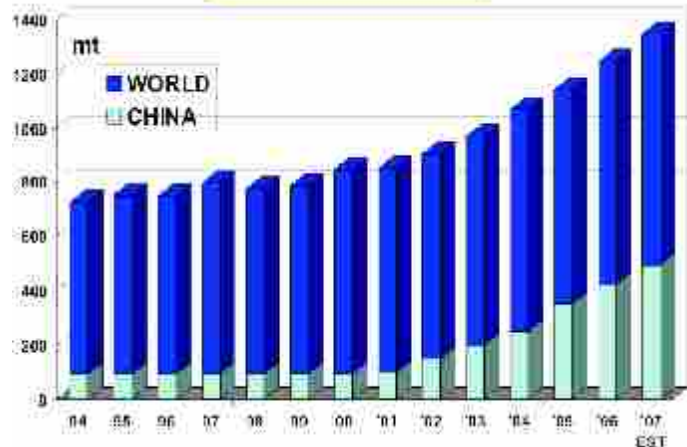
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MSTC Ltd.



Growth Rate of World Crude Steel Production 1950 Onwards

| YEAR | GROWTH IN % PER YEAR |
|-----------|----------------------|
| 1950 – 60 | 6.2 |
| 1960 – 70 | 5.5 |
| 1970 – 75 | 1.6 |
| 1975 – 80 | 2.2 |
| 1980 – 85 | 0.1 |
| 1985 – 90 | 1.4 |
| 1990 – 95 | -0.5 |
| 1995 – 00 | 2.4 |
| 2000 – 05 | 5.9 |
| 2005 – 10 | 3.8 |

Crude Steel Production -China V/s Rest of The World



Conclusion - I

If we exclude China the consolidated average rate of annual growth of crude steel production of the rest of the world from 1970 till 2005 is little above 1.0%.

Current Global Scenario

Any steel player in the world will tell you, that to have a competitive edge in this red-hot competitive steel market, they have two options :-

CONSOLIDATION to enable them to control the price of steel by controlling the supply.

Examples

- Mittal Steel's acquisition of its rival ARCELOR
- TATA Steel's acquisition of CORUS, the second largest steel producer in Europe.

REDUCING COST by having control over the RAW MATERIALS for a long term basis.

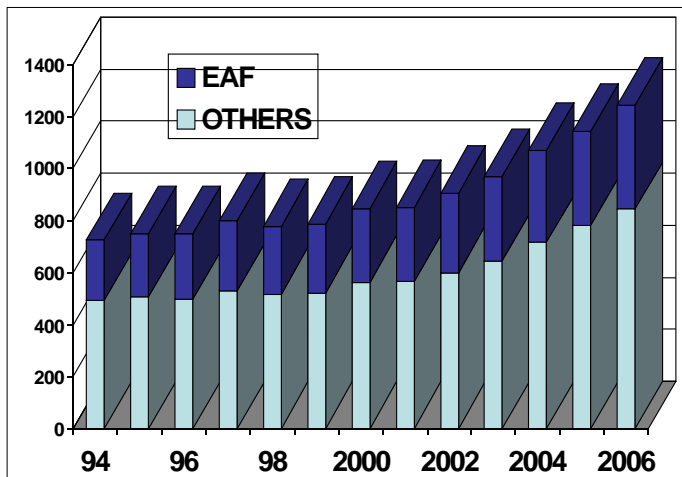
Examples

- We can see the BATTLE FOR MINES has gone global, stretching from Orissa (POSCO) to Bolivia (JINDAL STEEL) to Australia (SAIL)
- The fight for mines has well and truly hit INDIA and with such force that domestic majors have been forced on a GLOBAL TREASURE HUNT.

Conclusion - II

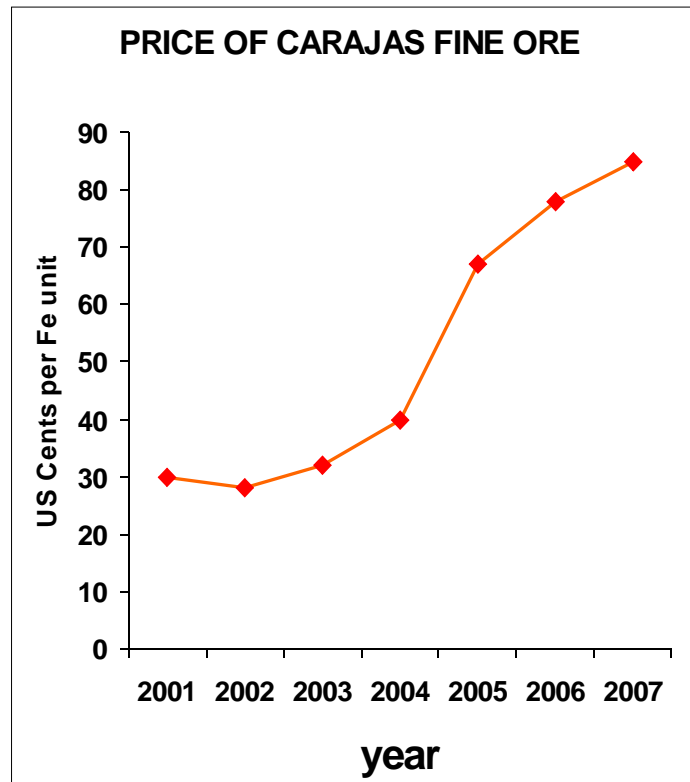
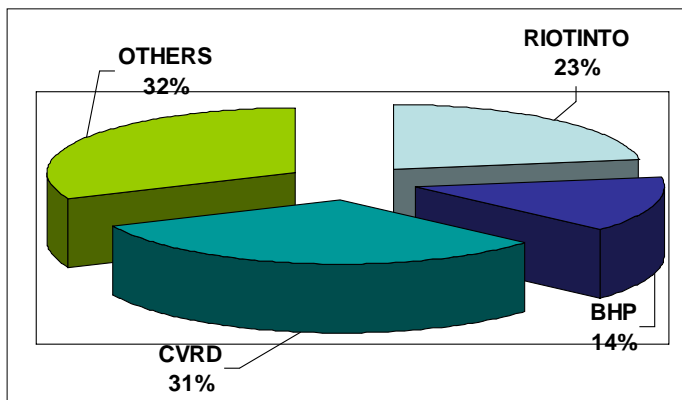
- The excessive price of crude oil leading to a very high freight obviously encourages steel producers to locate their facilities close to the raw materials.
- India with its abundant Iron ore reserve, cheap & skilled labour force is obviously preferred destination and may account for more than 50% of the growth in the world steel production.

Crude Steel Production By Process From 1994 To 2006

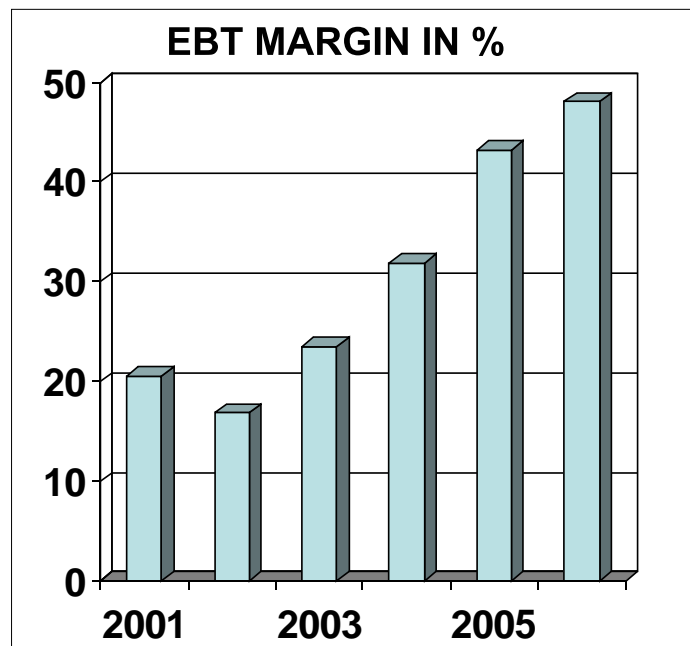


Iron Ore

The business of sea borne iron ore is dominated by just three companies. CVRD, Rio Tinto and BHP Billiton account for over 70% of total world trade.



- Since 2001 the price of Iron Ore has more than trebled although short term fluctuations do take place but in general it may be said that it has more than trebled in last 6 years & increased by 300% in the last 3 years.
- Needless to say that the costs of iron ore mining have not increased proportionately. A graph showing estimated EBT margin in % of iron ore production is given.



Conclusion - III

- One would normally expect under this circumstances rushing of investments in this sector. However due to well known reasons it is not happening at least in India. But once the Mining Policy is cleared and put in place one may expect a lot of investments to come in and price to stabilise

Feedmix Options for EAF

- Scrap
- HBI/DRI
- Pig Iron
- Hot Metal from BF route

World Metallics Balance

| | 2006 | 2007 (EST) | 2010 (EST) |
|---------------------------|------|------------|------------|
| EAF Metallics Consumption | 440 | 474 | 564 |
| DRI / HBI | 57 | 60 | 85 |
| Pig Iron (Incl Hot Metal) | 41 | 45 | 50 |
| Scrap Own Arisings | 40 | 43 | 51 |
| Merchant | 302 | 326 | 378 |

Demand of Iron Bearing Metallics in India

- Out of the total production of **45 million tonne of crude steel** in 2006-07, around **22 million tonne** is produced by the secondary producers.
- This requires around **25-26 million tonnes** of metallic inputs.
- Out of this the total requirement of **Scrap is 5.5 million tonne**, of which around 3 million tonne is from indigenous sources, 2.2 million tonne from import and balance are individual small imports in containers. (This is a gray area since the imports of this type are often unreported).
- Balance **16.27 million tonne** from DRI and **4.6 million tonne** Pig Iron.

Import of Ferrous Scrap In India : Last 5 Years



The import of scrap has increased from 1 million tonne 03-04 to around 2.2 million tonne in 2006-07.

Major Source For Scrap

| Country | Total Export (2005) | Export To India (2005) |
|------------|---------------------|------------------------|
| Uk | 6.8 | 0.60 |
| USA | 13.0 | 0.27 |
| Netherland | 4.2 | 0.08 |

Units: Million Tonne

Source : Website of DGFT & IISI

DRI/ Sponge Iron Scenario

- The total Global production of DRI/SPONGE IRON in 2006 is **59.9 million tonne**.
- The total production of DRI/SPONGE IRON in India in 2006-07 is **16.27 million tonne** of which 5.26 million tonne is Gas based and 11.01 million tonne is Coal based
- India is the largest producer.
- Other sources in the World are :-
 - VENEZUELA : 8.4 Million tonne
 - IRAN : 6.9 Million tonne
 - MEXICO : 6.2 Million tonne
 - EGYPT : 3.1 Million tonne

Source : SIMA & IISI

Pig Iron Scenario

Indian Production In 2006-07 (In Million Tonne)

| Production | Import | Export | Total Availability |
|------------|--------|--------|--------------------|
| 4.96 | = = | 0.359 | 4.6 |

Dynamics of Scrap Price in Global Market

- Freight Market
- Price of substitutes
- Internal Scrap price
- Country entering & withdrawing from the market.
- Seasonal factors like closure of ports in winter
- Long holidays

Looking Ahead

- Demand for metallics to rise continuously
- World steel dynamics predicts that the global steel scrap short fall will increase to 115 million tonne in 2010.
- Scrap likely to remain expensive over the medium term
- Supply of scrap substitutes to rise more aggressively from 2007
- Midrex predicted that world DRI production would raise to 75 million tonne by 2010.

Issues To Be Addressed

- In India Buyers market is still fragmented.
- What about small players ? Is it curtain for them ?

What A Trader Can Do ?

- ✓ Can give expert suggestion of the source based on requirement
- ✓ Can procure accumulating small demands.
- ✓ More negotiating power.
- ✓ Advantage of freight since materials can be procured in bulk.
- ✓ Can help in logistics also.
- ✓ Can arrange for finance and also give credit facilities.

Thus this may be the best permanent option for small players and temporary option for medium scale players till the go for vertical integration.

What MSTC is Doing ?

- MSTC' Marketing wing is in the business of sourcing and procurement of various input materials for Iron and Steel industry. Our endeavor is to provide a hassle free procurement of materials for our customers under different models based on the specific requirement of our customers.
- Our customers include Essar Steel, Ispat Industries, Uttam Galva, Sail-asp, Spsl, Shah Alloys, Adhunik etc.
- MSTC can procure materials from foreign sources accumulating small demands.
- Our business for the last year was above 5000 CRS.
- MSTC's E-Procurement wing is in the business of procurement of different items including stores materials on behalf of our customers through reverse e-auction.

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