

FACTS ABOUT IRON ORE

I - DOMESTIC PRODUCTION MOTIVATED BY STRONG DOMESTIC DEMAND

**Table – I
Production and Exports**

(Million tonnes)

Year	Production					Exports					
	Lumps	Fines	Total	Absolute change	%age change	Lumps	Fines	Total	Absolute change	%age change	%age of total prodn.
2003-04	48.96	73.88	122.84	23.77	23.99	13.00	49.57	62.57	14.55	30.30	50.92
2004-05	58.15	87.79	145.94	23.10	18.80	13.54	64.60	78.14	15.57	24.88	53.54
2005-06	68.31	96.92	165.23	19.29	13.22	14.28	74.99	89.27	11.13	14.24	54.03
2006-07	81.28	99.63	180.91	15.68	9.49	15.30	78.49	93.79	4.52	5.06	51.84
2007-08(E)			206.94	26.03	14.39						
(Apr-Feb 2007-08)						11.65	73.76	85.41	0.61*	0.72*	41.27*

Note: * %age change over corresponding period of 2006-07

Source: IBM, Nagpur - for production

MMTC, GMOEA and private exporters for — exports

2. Following facts emanate from the above table :
- Share of exports in total production has started coming down during last two years.
 - Since last year, when export duty was levied (Rs 50 per tonne on fines upto 62% Fe and Rs. 300 per tonne on lumps and fines above 62% Fe), exports have more or less stabilised at around 95 MT.
 - There cannot be any fudging or under-reporting of export figures.
 - Despite export price (f.o.b) having for sometime tripled or more than double for most of the time, exporters could not take advantage of boom because of
 - Gradual tapering off interest on Indian iron ore
 - logistic constraints, and

- the costs thereof,

both in moving the material from the mines to ports and at the ports itself.

- If despite this, export duty is sought to be increased, India will be reduced to an undependable and marginal supplier of iron ore in the world.
- Revenue generation through increase in export duty will be more than off-set by decrease in iron ore exports which will also affect CLO supplies to domestic steel producers

3. **CONCLUSIONS:**

- (i) Spurt in domestic production in the last two years has been motivated by domestic demand and exports have now started to act as an outlet for fines which are surplus (since domestic secondary sector requires only CLO). More production of iron ore for domestic steel industry, heavily dependent on closely sized lumps, will generate more fines which will have to be exported (there being inadequate demand for fines in domestic market).
- (ii) For domestic industry, there are no supply constraints as has been alleged in various advertisements sponsored by steel industry, either on its behalf or on behalf of other secondary producers. As on 31.03.2006 (for which the latest figures are available), the mineowners were carrying the following stocks at their mines, besides the iron ore in the supply chain such as at rail-heads, wagons/trucks, or at ports (mainly surplus fines for exports):

Table - II
Mine-head stocks

(000 tonnes)

AS ON	LUMPS	FINES	TOTAL
31.3.2002	4113	26670	30783
31.3.2003	5243	26391	31634
31.3.2004	5843	26631	32474
31.3.2005	10810	22067	32877
31.3.2006	11850	31200	43065
31.3.2007	13440	30490	43930

Source: Indian Bureau of Mines, Nagpur

- (iii) When supply-side is in abundance, there is no question of price-rise (much less abnormal), except increase in logistic/transport cost. Following table prepared by Association of Indian Forging Industries (AIFI) brings this out :

Table - III
Carbon Steel Price Movement

	PSU Mill	Diff	Cumu increase	Coke impact	Iron ore impact	Metallics	Total impact	Cumu impact
Nov-07	26,856	64	2,883	468	0	75	543	2,277
Dec-07	27,215	359	3,242	1,287	0	34	1,321	3,597
Jan-08	30,546	3,331	6,573	264	0	64	328	3,925
Feb-08	31,499	953	7,526	3,120	0	120	3,240	7,165
Mar-08	36,969	5,470	12,996	1,080	480	227	1,787	8,952
Apr-08	41,219	4,250	17,246	(This increase is under discussion)				

Source: AIFI (as appeared in Indian Express : 29-03-08)

- (iv) Companies like TATAs and SAIL have captive mines for iron ore (TATAs have captive mines for iron ore, coking coal, manganese and chromite and SAIL for iron ore, coking coal and limestone) which is available at (transfer) cost price. Any increase in steel price by them seems to be unjustified. These two companies, within themselves, contribute about 37% to the total crude steel production in the country. In other words, they are making wind-fall profits at the cost of the consumers.

II - EXPORTS FROM SOME REGIONS ONLY TO MAINTAIN SUPPLY TO DOMESTIC STEEL

Most of the steel plants, primary and secondary, are situated in **Eastern region** due to proximity of raw materials like iron ore and coking coal/coal. The iron ore is hard and there is comparatively less generation of fines at the time of mining. It suits sponge iron plants, mini-blast furnaces. However, since two tonnes of lumps/boulders are processed to get one tonne of CLO, leaving one tonne as fines which are already surplus (TATA and SAIL utilise most of the fines from their captive mines as sinter feed). Unless fines are evacuated (exports being only outlet), mining can not go uninterrupted to maintain the supply of CLO.

2. In **Bellary-Hospet sector** (Karnataka), iron ore is soft and friable. At the time of mining itself, 60% comes as fines. In this sector, to provide one tonne of CLO, two-and-a-half tonnes lumps/boulders are processed, leaving one-and-a-half tonnes as fines. Domestic demand being limited vis-a-vis production of iron ore, which is heavily tilted in favour of fines (only one steel plant is JSW), the mineowners are increasingly going for pelletisation. Till the capacity comes to utilize all the fines, the surplus will have to find an export outlet to provide space for mining for supplying CLO to sponge iron plants and mini-blast furnaces as well as SMEs..

3. Despite f.o.b. spot prices at their boom, export are not that profitable as they used to be. Mineowners make more money in domestic sales as compared to exports (**basis 63.5% Fe**):

Table - IV

(A) Export Price (fines)

S.No.		Bellary Sector		Eastern Sector	
		2004-2005	CURRENT (17.03.2008)	2004-2005	CURRENT (17.03.2008)
1.	Medium grade iron ore fines Price in USD, per dry metric tonne (PDMT)	\$56.86	\$125	\$50.50	\$115
2.	Exchange rate	\$44.95	\$40.45	\$44.95	\$40.45

S.No.		Bellary Sector		Eastern Sector	
		2004-2005	CURRENT (17.03.2008)	2004-2005	CURRENT (17.03.2008)
3.	Medium grade iron ore fines Price in INR, <i>per dry metric tonne</i> (PDMT)	2556	5056	2270	4652
4.	Transportation charges (average all ports)	689	1650	1100	2300
5.	Port/Handling charges	143	269	152	265
6.	Spillage cost (spillage @5%)	128	253	113	233
7.	Export duty and cess	0	301	0	301
8.	Royalty	19	19	19	19
9.	Transport & handling at mines & stations	35	165	50	150
10.	Mining cost	275	450	250	450
11.	Total cost <i>per wet metric tonne</i> (PWMT)	1288	3107	1685	3718
12.	Moisture @4%	51	124	117	260
13.	Total cost <i>per dry metric tonne</i> (PDMT)	1339	3231	1802	3978
14.	Ex-mine realization (S.No.3 – S.No.13)	1216	1825	468	674
15.	Income tax	409(33.66%)	620(33.99%)	157(33.66%)	229(33.99%)
16.	Net Margin	807	1205	310	445
17.	Net Margin percentage	32%	24%	14%	10%

***(B) Domestic price - ex-mines (CLO)** **Rs. 3200/MT** **Rs. 3500/MT**

***Note:** This is an average price in the respective sectors. Price will differ from mineowner to mineowner depending upon not only on Fe content but also on physical and chemical composition, Al₂O₃ + silica ratio, tumbler index, reducibility, distance from mines to consumer points, etc.

(Source : Industry in Eastern and Bellary-Hospet region)

4. It does not therefore make any sense to say that mineowners are concentrating on exports at the cost of domestic supply when there is more per unit realisation ex-mines as compared to export realisation. In fact, domestic demand for CLO is being regularly maintained only when there is evacuation of fines for export. If exports are curbed or reduced, domestic supply of CLO would be curbed, affecting secondary steel sector and SMEs.

5. On the other hand, steel companies, SME and sponge iron units are reaping profits and windfall gains from their operations :

Table - V

(A) Steel Companies

(Rupees in Crores)

	2006-07			April-Dec. 2007		
	Total Income	EBIDTA	EBIDTA %	Total Income	EBIDTA	EBIDTA %
JSW	8699.59	2922.66	34%	7859.09	2626.43	33%
JSPL	3548.78	1431.37	40%	3912.08	1576.51	40%
ESSAR	8213.57	1955.25	24%	5128.21	1252.07	24%
TATA	17985.69	7406.94	41%	14263.98	6128.69	43%
SAIL	35307.20	10408.06	29%	27661.79	8920.87	32%

(Source : Annual Reports of Companies)

(B) Sponge Iron Units

Area/Month	Average Sale price	Landed cost of iron ore at the plant	Average manufacturing cost including all raw materials	Average profit per tonne
1	2	3	4	5
Raipur				
January 2008	17200	4650	11100	6100
February 2008	18000	5050	11740	6260
March 2008	21400	5450	12380	9020
Raigarh				
January 2008	16700	4500	10690	6010
February 2008	17500	4900	11330	6170
March 2008	20900	5300	11970	8930
Jamshedpur				
January 2008	16200	4250	10970	5230
February 2008	17000	4650	11610	5390
March 2008	20400	5050	12250	8150
Barbil				
January 2008	15200	4000	10273	4928
February 2008	16000	4400	11001	4999
March 2008	19400	4800	11641	7759
Rourkela				
January 2008	16100	4500	10826	5274
February 2008	16900	4900	11466	5434
March 2008	20300	5300	12106	8194

(Source: Sponge iron industry)

(C) Mini Blast Furnace (MBF)

Facilities		250 m3 MBF + 5 MW CG					
Production(t/y)		150,000					
		As on April 2007			As on March 2008		
Item(unit)	Rs/unit	Units/t HM	Rs/t HM	Rs/unit	Units/t HM	Rs/t HM	
Iron Ore(t)	2800	1.6	4480	3800	1.6	6080	
Coke(t)	13480	0.65	8762	24600	0.65	15990	
Dolomite(t)	900	0.12	108	1000	0.12	120	
Limestone(t)	900	0.16	144	1000	0.16	160	
Quartzite(t)	600	0.09	54	600	0.09	54	
Mn Ore(t)	4000	0.03	120	4000	0.03	120	
Electricity(kWh)	4.7	125	587.5	4.7	125	587.5	
Labour(m-h)	40	2.4	96	40	2.4	96	
Maintenance &supplies(\$)	40	3	120	40	3	120	
In-plant material handling(\$)	40	2	80	40	2	80	
Refractory(kg)	40	2	80	40	2	80	
Make-up water(Cu-m)	0.2	2	0.4	0.2	2	0.4	
Fuel oil(kg)	30	2	60	30	2	60	
Owning Cost(Rs)	500	1	500	500	1	500	
Cogeneration credit(kWh)	-3.5	125	-437.5	-3.5	125	-437.5	
Total cost (Rs/t HM)			14754.4			23610.4	
Selling Price of Pig Iron (Rs/t)			17000	25000	1	25000	
Profitability			2245.6			1389.6	

The above tables will indicate that steel/sponge iron/mini-blast furnace unit have all maintained/increased their profitability. There has been no shortage of iron ore but only increase in logistic/transport costs. In the case of coke, its prices have almost doubled. Blaming of iron ore industry for price is nothing but trying to find a scape-goat for increase in steel prices to maintain their profitability.

6. Mining companies are ploughing profits back into exploration (which has led to the discovery of 3141 MT of additional haematite deposits in between 1.4.2000 and 1.4.2005), mine development, scientific and proper mining and creating more jobs in the country. The steel companies, on the other hand, are diverting their profits generated in India to acquire either sick steel plants abroad (Corus, Nat, Algoma, etc.) to maintain jobs in those countries or are developing new mines or steel plants in far-flung areas such as Bolivia, Chile, Canada, US etc. and creating jobs in those countries rather than ploughing profits in creating new/more steel

capacity and generating the employment within the country. In fact, in the first nine months (April-Dec. 2007) of this financial year, TISCO produced only 2.319 MT of crude steel as against 2.545 MT in corresponding period last year (a fall of 0.8%), despite having captives mines of all the raw materials such as iron ore, coking coal, chromite and manganese.

III - STEEL SCENARIO

For the last two years, steel industry through misleading advertisements in the news papers as well as misleading representations before the Government, is giving a wrong picture to the Government and the public about the iron ore industry in the country. They are blaming iron ore industry for the rise in steel prices during the last more than six months. Iron ore constitutes around 1.5% of the total cost of steel in the case of those steel plants (TATAs & SAIL) who have got captive mines and 6-7% (*plus* 3-4% constituting the cost of transportation from the mines to the steel plants' sites) in the case of steel plants who procure iron ore from the stand-alone iron ore companies. Iron ore industry cannot therefore be blamed for the rise in steel prices when its share is so insignificant in the total price structure. It is a cartel of 7-8 steel manufacturers which is responsible for abnormal increase in steel prices. This letter is therefore to bring to your kind notice the real ground level realities.

Availability of iron ore (over-supply)

2. The table-I would indicate that the exports have stabilized at around 93 million tonnes (MT); it was 93.79 MT in 2006-07 and it is likely to be around 93 MT during 2007-08. The table-VI will also illustrate that while the exports have remained virtually the same, the iron ore production has increased to 207 MT in 2007-08 as compared to 181 MT in 2006-07, an increase of 26 MT.

3. It is therefore quite obvious that the domestic production of iron ore is motivated by strong domestic demand in the country. The increase in production from the existing mines was possible because the ***mining companies ploughed back profits earned from exports in exploration, mine development, scientific and proper mining and creating more jobs in the country.***

4. In addition to above, the mine-head stocks as on 31 March 2007 was about 44 MT (table-II) of which about 30.5 MT were fines and the balance more than 13 MT lumps.

5. The following scenario thus emerges in 2007-08 in so far as iron ore availability is concerned:

Production in 2007-08	=	207 million tonnes
Exports (expected)	(-)	93 million tonnes

Balance	=	114 million tonnes
Stockpile as on 31.3.07	(+)	44 million tonnes

Total Qty. available for domestic steel in 2007-08	=	158 million tonnes

Crude steel production

6. Against this scenario, let us analyse crude steel production expected during 2007-08:

Table-VI
Crude steel production

PLANTS	2005-06	2006-07	Apr-Dec '07 (Prov.)	Apr-Dec '06	(in '000 tonnes) % Variation Apr.-Dec '07 w.r.t. Apr.-Dec '06
A. MAIN PRODUCERS					
Bhilai Steel Plant	5054	4799	3732	3578	4.3
Durgapur Steel Plant	1801	1869	1433	1345	6.5
Rourkela Steel Plant	1661	1990	1536	1512	1.6
Bokaro Steel Plant	4228	4067	3097	3001	3.2
Alloy Steel Plant	140	150	114	113	0.9
Visvesvaraya Iron & Steel	152	159	116	119	- 2.5
Indian Iron & Steel	434	472	352	345	2.0
Tata Iron & Steel	4730	5174	3709	3738	- 0.8
Rashtriya Ispat Nigam	3494	3497	2319	2545	- 8.9
Sub Total (A) :	21694 <i>(46.69%)</i>	22177 <i>(43.64%)</i>	16408 <i>(41.43%)</i>	16296 <i>(43.64%)</i>	0.7
B. SECONDARY PRODUCERS					
EAF Units (Include. Corex- BOF/ MBF-EOF)	11273 (24.27%)	13250 (26.08%)	10750 (27.14%)	10362 (27.75%)	3.7
IF Units	13493 (29.04%)	15390 (30.28%)	12450 (31.43%)	10682 (28.61%)	16.6
Sub Total (B)	24766 <i>(53.31%)</i>	28640 <i>(56.36%)</i>	23200 <i>(58.57%)</i>	21044 <i>(56.36%)</i>	10.2
Total (A+B)	46460	50817	39608	37340	6.1

Source: JPC Bulletin Dec.07

Note: Figures in parenthesis denote %age to total production

7. During the entire period 2007-08, the crude steel production is likely to be about 52.81 MT (39.61 MT+13.20 MT in Jan-March 2008). Out of this, 16.37 MT (or 31%) would come from induction furnace (IF) units which use only scrap and sponge iron and not iron ore, leaving a balance of 36.44 MT crude steel requiring iron ore. Taking a consumption ratio of 1.6 tonnes per tonne of crude steel, the total requirement of iron ore will work out to 58.30 MT (36.44 MT crude steel x 1.6 tonnes of iron ore).

8. According to JPC, country is estimated to produce 18.50 MT sponge iron in 2007-08. If same conversion rate of 1.6 tonnes per tonne of sponge iron is taken into account, we would require another 29.6 MT (18.50 MT x 1.6 tonnes) of iron ore.

9. ***This places total domestic iron ore requirements at 87.9 MT (58.30 + 29.6 MT) as against the domestic availability of 158 MT during this year itself.*** In such a scenario of massive over-supply, how can there be any arbitrary increase in iron ore prices ***except that of logistic or transportation costs?*** During last year, railway freight has almost doubled and the cost of road transportation, particularly since March 2008 increase in fuel prices, has increased abnormally.

Massive evasion of taxes

10. If despite this massive surplus of 70 MT (158-88 MT) of iron ore, steel producers are claiming that there is a shortage of iron ore, question arises where this quantity, sufficient to produce 44 MT crude steel, is going? There are two possibilities :

- either steel/sponge/mini-blast furnace/SME iron plants are under-reporting production, or
- there is massive illegal production of steel

11. If any of these two or both the scenarios are true, ***there is massive***

evasion of excise duty, sales tax/VAT, corporate tax, etc. Ministry of Finance as well as Ministry of Steel have to initiate necessary steps to find out real position and take corrective measures. ***Bringing them into tax-net will bring enormous revenue to the government, both state and centre.***

12. **Sum up:** It is therefore quite obvious that a cartel of 7-8 primary steel producers have joined together to raise the steel prices to the phenomenal level at the cost of consumers. TATAs and SAIL which contribute 37% to the total crude steel production and have captive mines from where they get the raw materials at transfer cost, are reaping wind-fall profits.

Suggestions : improving supply side of steel

13. It is therefore quite obvious that it is not the price or the availability of iron ore which is responsible for the increase in steel price; it is the cartel which is creating scarcity conditions to reap wind-fall profits.* Under these circumstances, the only way by which the steel price can be brought down is to break the cartel and to improve the supply side of steel in the domestic market to balance the demand-supply gap. It is therefore suggested that the ***import duty on steel at should be abolished to allow free import of steel and excise duty reduced to the extent possible to promote production.***

14. While there is scarcity of steel in the country, the steel producers are exporting steel where profit margins are high. An idea of the extent of steel exports can be had from the table VII.

* *This wind-fall profits generated in India are being diverted by some of the companies to acquire either sick steel plants (Corus, Nat, Algoma, etc.) abroad to maintain jobs in those countries or in developing new mines or steel plants in far-flung areas such as Bolivia, Chile, Canada, US, etc. and creating jobs in those countries rather than ploughing profits in creating new/more steel capacity and generating employment within India.*

Table-VII
Export of steel for the last four years

Qty: In tonnes
Value: In Lakh Rupees

Commodities	2003-04		2004-05		2005-06		2006-07	
	Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value
Iron & Steel Bar/Rod Etc. & Ferro Alloy	458012	148728.02	280085	172815.53	374576	250401.28	393770	389075.97
Primary & Semi-finished Iron and Steel	4779350	989844.38	5006042	1530636.69	4767784	1320559.97	6366231	1981372.96
Total	5237362	1138572.40	5286127	1703452.22	5142360	1570961.25	6760001	2370448.93

Source: DGCIS, Kolkata

15. It is therefore necessary to put a halt to steel exports to make it available for domestic use. This can be done by imposing export duty of 25% to make it unattractive for export. ***The imposition of export duty, together with bringing the under-reported or illegal production of steel into tax-net, will more than off-set any revenue loss*** which the Government of India may suffer on account of abolition of import duty or any contemplated reduction in excise duty.

16. In peroration, it may be stated that while there is a statutory binding on the mining industry to report correct quantity of iron ore produced by a mineowner to IBM, we are not aware whether such a statutory provision exists in the case of steel/sponge iron /mini-blast furnace/SME units? If not, it is worth consideration of the government whether should not such a statutory stipulation be made to avoid such mud-slinging and defaming the iron ore mining industry from time to time?