# Motilal Oswal

## Steel Authority of India

	BLOOMBERG SAIL IN	7 Febr	uary 2007									Buy
	REUTERS CODE SAIL.BO	Previo	us Recomme	endation:	Buy							Rs116
Equity Shares (m)	4,130.4	YEAR	NET SALES	РАТ	EPS	EPS	P/E	P/BV	ROE	ROCE	EV/	EV/
52-Week Range	117/53	END	(RSM)	(RSM)	(RS)	GROWTH (%)	(X)	(X)	(%)	(%)	SALES	EBITDA
1,6,12 Rel. Perf. (%	6) 28/25/56	3/06A	282,656	40,130	9.1	-55.8	12.7	3.9	30.5	33.6	1.6	7.3
M.Cap. (Rs b)	480.0	3/07E	339,894	64,626	14.6	59.6	8.0	2.7	33.6	42.1	1.2	4.0
M.Cap. (US\$ b)	10.9	3/08E	359,041	67,209	16.3	11.5	7.1	2.0	28.4	38.2	1.0	3.4

- Positive demand outlook, firm steel pricing and industry consolidation to drive valuations: Steel producers in India raised prices of long steel products by Rs500 per ton in January 2007 and followed this with a similar price hike in February 2007 for all products to align with the global trend of rising prices. The landed cost of hot rolled coils (HRC) at Indian ports has risen by US\$30-US\$40 per ton in January. We expect domestic flat steel prices to harden in line with global trend, although the extent of the hardening will not match global levels. Instead, we are more likely to witness stable pricing with an upward bias in the coming months. In 2005, top 15 steel producers accounted for 33% global production versus 25% about 10 years ago. Today the top 15 producers, ex-China, account for 50% of steel production. The trend of takeovers, mergers and alliances is inevitable, as producers look to integrate horizontally with other mills and vertically with raw material suppliers and steel distributors to secure their future.
- Strong volume and earnings growth for SAIL: The company is on growth path to increase production of saleable steel from 12mt currently to 20mt by 2010 through brownfield expansions and de-bottlenecking of existing furnaces. Setting of new finishing mills will improve product mix and reduce the share of semi-finished products from 20% currently to 4% in 2010. Phasing out of ingot casting route of steel production would save energy and operating costs. The company is likely to post volume growth of 7% in FY08 and 9% in FY09E followed by even higher growth thereafter. Volume growth and falling costs will be key drivers of earnings for SAIL.
- Valuations and target price: SAIL currently has Rs85b (Rs20.6 per share) of cash and cash equivalents. Adjusting for cash, the stock is trading at an attractive P/E of 5.9x and EV/EBITDA of 3.4x on our FY08E estimates. The valuations are extremely attractive versus global peers. On the parameter of EV/ton, SAIL is available at US\$588/ton against the global average of US\$1,002/ton and is at a substantial discount. In view of rising iron ore prices, falling coking coal prices, reducing manpower costs, improving product mix and increasing global consolidation, we recommend Buy on SAIL and set our 12-month price target price at Rs156/share based on 5x EV/EBITDA estimate for FY08.



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### Positive demand outlook in 2007

Demand for steel products grew by 11.5% in 2006 to 1,147mt led by strong demand growth in most regions. However, production in most regions except China could not keep pace with demand growth. United States of America (USA) was the largest importer in 2006. Total import of steel products by the US grew 32% YoY to 41mt in 2006.

84 <b>974</b>	89 <b>1,029</b>	6 6	98 1,147	10 <b>12</b>	105 <b>1.208</b>	7
84	89	6	98	10	105	7
69	73	6	79	8	85	8
168	159	-5	172	8	170	-1
149	140	-6	152	9	151	-1
234	242	3	247	2	256	4
270	327	21	399	22	442	10
2004	2005	YOY %	2006E	YOY %	2007E	YOY%
	270 234 149 168	2004 2005   270 327   234 242   149 140   168 159	2004 2005 YOY %   270 327 21   234 242 3   149 140 -6   168 159 -5	2004 2005 YOY % 2006E   270 327 21 399   234 242 3 247   149 140 -6 152   168 159 -5 172	2004 2005 YOY % 2006E YOY %   270 327 21 399 22   234 242 3 247 2   149 140 -6 152 9   168 159 -5 172 8	2004 2005 YOY % 2006E YOY % 2007E   270 327 21 399 22 442   234 242 3 247 2 256   149 140 -6 152 9 151   168 159 -5 172 8 170

Source: IISI /Motilal Oswal Securities

Chinese demand for steel is expected to grow between 10-15% in 2007 on a larger base. This would mean additional consumption of 40mt-60mt of steel in absolute terms and would take care of surplus capacity in China. The former USSR and the Middle East countries too are expected to post demand growth of 7-8%. Despite concerns of demand slowdown in the US, the demand is likely to decline marginally and prices have already started moving up after de-stocking was complete. Nucor Steel and AK Steel, leading steel producers in USA, have announced increased prices of US\$30 per ton for deliveries in March 2007.

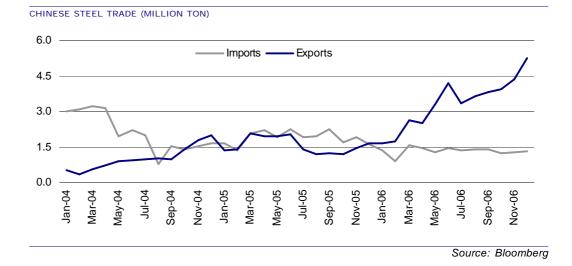
#### YOY % YOY % 2007E YOY% 2006F China Rest of Asia North America -5 EU -4 CIS & other Europe Others -12 Total 1,067 1,214 1,271

CRUDE STEEL PRODUCTION (MT)

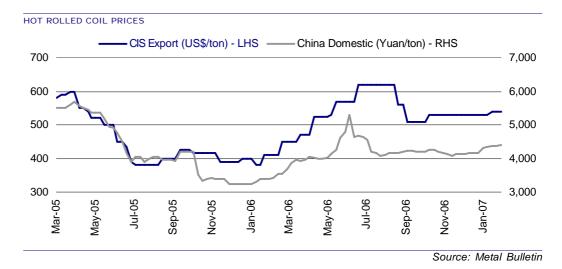
Source: IISI /Motilal Oswal Securities

#### Strong global pricing drives Chinese exports

China exported 40.3mt of steel products against total import of 16.9mt and became a net exporter of 24.4mt in 2006. Stronger pricing in the global market was the primary reason boosting rising exports. China was net importer despite surplus capacity of 100mt in 2005.



Consumption of steel products grew rapidly in China during 2000-2004 at an unprecedented CAGR of 20.7%. This led to a rally in prices as the growth in steel production could not match demand growth. China became largest importer of steel with net import of 40mt in 2004. As new capacities came on stream in China in beginning of 2005, its imports reduced and steel prices started softening until end-2005. Strong demand growth in 2006, led by China, and the sharp rise in US imports once again saw steel prices zooming. However, domestic prices of HRC were not as strong in China and there was a visible gap (see HRC price graph below) which encouraged Chinese producers to export.

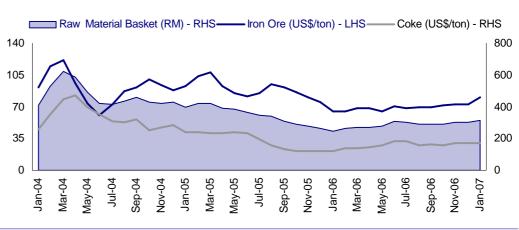


It is tough for China to be a natural exporter of steel products because its dependence on imported iron ore will grow even faster. The Chinese government has already imposed 10% duty on export of semi-finished steel products on 1 November 2006, and has plans to raise this further to 15%. The duty refund of 8% against the value-added tax paid on export of finished steel products too is expected to be brought down to 3%. Clearly, we conclude, China does not want to encourage export of steel as it would hurt them the most to pay a higher price for imported iron ore.

#### Chinese exports are not a threat due to high marginal cost of production

China has fifth largest iron ore reserves (46b ton) in world after Russia, Brazil, Australia and Ukraine. Over 97% are low grade deposits, with an average grade of 33%; lower than the world average by 11%. The large mines constitute only 5% of the annual production and most of the mines are small in size. Despite having the largest production of iron ore, estimated at 550mt in 2006 contributing 182mt (only) of steel production, the Chinese steel industry is largely fragmented, quality of ore is poor and the cost of production is high. The cost of production of iron ore ranges from US\$31-US\$65 per ton. After adding inland transportation cost, the landed cost for a Chinese steel producer would range between US\$35-US\$70 per ton.

Since a large number of steel producers buy iron ore in the spot market, they pay even higher prices — between US\$56-US\$89 per ton for local ore. China produces steel via the blast furnace route that uses iron ore, owing to poor availability of steel scrap in the country. The blast furnace route comprised more than 85% of China's total production of 420mt in 2006. **China must therefore depend on imported iron ore**. Iron ore imports have risen sharply to 325mt in 2006, an average growth of 30% during 2000-2006. Chinese imports now constitute 43% of the global seaborne trade of 750mt of iron ore. The landed cost of iron ore at the Chinese ports ranges between US\$70-US\$80 per ton. The Chinese steel mills have to blend imported iron ore having higher metal content with domestically produced iron ore to raise the average metal content so that productivity of the blast furnace is not unduly impacted. Low productivity in the blast furnace could result in higher consumption of other expensive raw materials such as coke.



COST OF RAW MATERIAL BASKET FOR ONE TON OF CRUDE STEEL PRODUCTION IN CHINA

Source: Metal Bulletin/Motilal Oswal Securities

Chinese steel producers have to largely depend (45% of total requirement) on purchase of merchant coke. Only 70% of the large/medium sized steel producers have captive coke ovens. Coke prices have been volatile in the past due to the sharp rise in steel production in China during 2000-2004. Coke prices are now once again inching up due to cost push factors. Production of one ton of hot metal requires two tons of iron ore, 550-800 kg of coke and nearly 400-500 kg of fluxes. Thus, for a Chinese steel producer, the cost of the

raw material basket has been moving up from a low of US\$256 per ton in January 2006 to US\$316 per ton currently. On adding a marginal conversion cost of US\$150 per ton, the marginal cost for about 20% of steel producers in China for hot rolled coils (HRC) is more than US\$460 per ton.

China has to perforce sell at higher prices to remain viable. Therefore, we believe that HRC prices would remain firm and China's steel industry cannot flood global trade with cheap products. In the event of a cyclical downturn, the Chinese producers will likely compete among themselves and cannot pose a threat to steel producers in low cost producing countries such as India, Brazil and Russia.

#### Cost of raw materials is low for Indian producers

Indian steel producers such as Tata Steel and SAIL meet their full requirement of iron ore from captive mines and spend only US\$15-US\$30 per ton for hot metal production. This is a clear advantage of US\$100 per ton over Chinese steel producers. JSW Steel partly meets its requirement of iron ore from its mines but gains substantial cost advantages due to its location in the iron ore-rich Bellary-Hospet region in Karnataka. JSW Steel sources iron ore from the public sector National Mineral Development Corporation (NMDC), on a long term contract basis. Its cost of iron ore per ton of hot metal too is low (lower than US\$40).



COKING COAL LONG TERM CONTRACT PRICES (US\$/TON)

Source: Motilal Oswal Securities

Indian large steel producers have captive coke ovens and import coking coal on long term contract basis rather than coke. These long term contracts are negotiated every year. This ensures consistent quality of coke for their furnaces and stable operations. Manufactured cost of coke from captive ovens (after taking credit for waste gases, which are utilized either in reheated furnaces or converted into power) is much lower than merchant coke prices in China. Coking coal prices moved up sharply in 2005 by 119% and has eased thereafter. Coking coal prices were negotiated for US\$125 per ton in 2005, US\$110-US\$115 per ton in 2006 and new contracts for 2007 are even lower at US\$98 per ton. Therefore, we believe that raw material costs for Indian producers would reduce in the years ahead.

RAW WATERIAL COSTS	FOR INDIAN STEEL PROL	JUCERS PER TUI	V OF SALEADLE	31EEL (035/10N)	
	FY04	FY05	FY06	FY07E	FY08E
Tata Steel	94	104	130	154	150
SAIL	140	193	233	215	214
JSW Steel	197	356	326	295	289

COSTS FOR INDIAN STEEL PRODUCERS PER TON OF SALEARLE STEEL (US\$/TON)

Source: Motilal Oswal Securities

Note: Raw material costs mentioned are not comparable across companies due to product mix variation. JSW Steel has a large proportion of galvanized and coated products in its mix versus SAIL and Tata Steel.

Indian integrated steel producers derive immense advantages over Chinese producers. The competitive advantages of Indian integrated steel producers over Chinese producers are likely to widen further as iron ore prices further move up (Iron ore industry operates under oligopolistic market conditions. CVRD, BHP-Billiton and RioTinto controls 75% of the global trade) and coking coal prices soften as supply side has eased. Therefore, steel production in India would grow faster and domestic producers would be able to ride smoothly over a cyclical downturn (if any) whilst remaining profitable.

#### Manpower costs too would fall for SAIL and Tata Steel

Both Tata Steel and SAIL have a large manpower base and are on a rapid growth path. Introduction of new technology, natural separation and capacity expansion without significant induction of new staff would bring down specific manpower costs in the next five years.

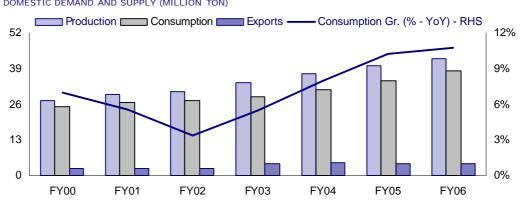
SPECIFIC MANPOWER COSTS AND TRENDS FOR MAJOR INDIAN PRODUCERS
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JSW Steel	272	596	600	609	607
SAIL	4,354	3,534	3,534	3,528	3,376
Tata Steel	3,886	3,513	3,337	3,161	3,182
(RS PER TON)	FY04	FY05	FY06	FY07E	FY08E

Source: Motilal Oswal Securities

#### Sound demand fundamentals in India ...

The annual growth rate for consumption of finished steel products has accelerated from 3.4% in FY02 to 10.8% in FY06. India still has low per capita consumption of 40kg, far below the global average of 185kg (a figure that compares with 240kg in China, 400kg in EU, 600kg in Japan and 1,000kg in Korea). India is at an inflection point and consumption would accelerate further to support strong GDP growth, as US\$320b infrastructure investment is planned for the ongoing XI Plan (2007-20012).

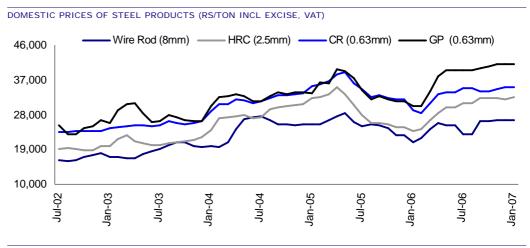


DOMESTIC DEMAND AND SUPPLY (MILLION TON)

Source: JPC

#### ...and stable domestic prices

Domestic prices of steel products have largely remained stable in the last one year despite volatility in global prices (prices flip between import parity to export parity depending on the flow of global trade).



Source: JPC and Motilal Oswal Securities (Mumbai prices) Note: HRC=Hot rolled coil, CR=Cold rolled, GP=Galvanized Plain

#### Large scale capacity additions planned, yet progress is slow

Realizing the advantages discussed above, a large number of MoUs (about 100mt of capacity at an investment of US\$80bn in next 10-15 years) have been signed with the state governments of Orissa, Jharkhand, Chhattisgarh and West Bengal to set up greenfield steel projects with the promise of iron ore linkages. Posco and Arcelor-Mittal too have planned a 12mt p.a. plant each in the state of Orissa. However, the progress of these projects leaves much for the asking in the absence of clarity on the government's iron ore policy. Progress on acquisition of land in Orissa too has been slow due to the required displacement of tribals and the rapid rise in land prices.

Brownfield expansions to drive domestic steel production growth at 12% CAGR

We expect domestic crude steel production to rise to 78mt p.a. by FY12E at a CAGR of 12%, driven largely by brownfield expansions (SAIL-8mt; Tata-5mt; JSW-7.5mt; Essar-5mt; RINL-3mt and Posco-3mt).

#### Industry consolidation to intensify, will drive valuations

In 2005, the top 15 steel producers accounted for 33% of global production compared with 25% about 10 years ago. The top 15 producers now account for 50% of steel production ex-China. The US\$38.3b Arcelor-Mittal merger formed a global giant accounting for approximately 115mt or 10% of world production. In 2006 Mittal paid about 4.5x the EBITDA of Arcelor. The second largest steel industry merger witnessed creation of the fifth biggest steel producer — Tata Steel acquired Corus on 31 January 2007 for £6.2b (US\$12b), paying 9 times Corus EBITDA. CSN after having lost two acquisition bids in a

row — Wheeling Pittsburg to Esmark in the US and Corus to Tata Steel — remains hungry for acquisition. Its potential to strike big increases every day due to rising accumulated earnings. Post Arcelor-Mittal and Tata-Corus, the steel industry remains much more fragmented than its suppliers, its customers and its rivals. Further takeovers, mergers and alliances appear inevitable as producers look to integrate horizontally with other mills and vertically with raw material suppliers and steel distributors, to secure their future.

The ongoing industry activity is not limited to Corus. A panorama of recent developments:

- Evraz has purchased Oregon Steel on the US west coast for US\$2.3b to form a 17m tpy group, and now wish to complete their acquisition of South Africa's 1m tpy Highveld Steel.
- Rumors link Severstal with an objective to take over US Steel and a leading Russian scrap merchant, whilst its CEO has made it clear the company wishes to expand in the US and Europe.
- Back in the US, Esmark has secured Wheeling-Pittsburgh and is close to an agreement with Mittal Steel on their Weirton mill.
- Nucor has agreed to acquire the leading processor and fabricator, Harris Steel.
- In China, Baosteel has taken a 70% stake in Bayi Iron and Steel to increase their size by 10% (2.8m tpy), and the merger of Laiwu Steel and Jinan Steel is scheduled to take place during Spring this year.
- Although Benxi and Anshan were joined under the umbrella of Abden in August 2005, recent board changes at both companies now make timely moves to integrate operations, much more likely.
- JFE Steel of Japan and South Korea's Hyundai are holding talks to strengthen links.
- At Posco's request, both Nippon Steel and Mitsubishi have increased their respective stakes in the South Korean steel maker in a defensive move.
- Gerdau, Brazilian Giant, has taken its stake in Siderperu, Peru to 83% and is considering doubling its 40% stake in Sidenor of Spain.
- NLMK, a Russian player, has acquired 50% of the Duferco Steel Mills in Europe and the USA.
- The Indian government is considering legislation to enable the state-owned SAIL to bid for overseas assets.
- In Australia the schedule for the proposed Onesteel-Smorgon Steel tie-up has become unclear following objections by Bluescope and their purchase of a new 20% stake in Smorgon.
- The fate of Dofasco also remains unclear. US regulators have required the merged Mittal-Arcelor to divest of either Dofasco or a number Mittal's US plants including Weirton. However the ownership of Dofasco was tied into a trust by Arcelor in a defensive move against the Mittal takeover. Thyssen-Krupp has failed to force through an earlier agreed sale and have turned their sights to greenfield sites in the US.

Globally the steel industry is consolidating except in China where, despite merger activity, growth amongst the smaller producers is outstripping that of the big players. The fragmented Chinese industry will continue to pay high prices for its raw material requirement and thereby cost of production would only rise with time.

#### Industry has no choice but to consolidate

Here, we present a summary of our study of eight steel companies selected across the globe who have survived the cyclical downturn in the last 12 years. We have used historical market capitalization provided by Bloomberg to study the historical valuations. The eight companies are POSCO (Korea), Baoshan Steel (China), US Steel(USA), AK Steel (USA), Nucor (USA), Thyssen-Krupp (Germany), Gerdau (Brazil) and CSN (Brazil).

KEY FINANCIALS OF EIGHT COMPANIES UNDER STUDY (US\$ M)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	CAGR
														(00-06)
Sales	21,122	20,237	20,041	23,609	59,418	64,492	63,481	66,660	80,790	107,574	131,147	149,828	155,061	15.1
EBITDA	6,429	5,624	6,203	5,257	8,240	10,389	7,621	9,595	11,455	20,766	25,361	25,407	26,544	16.1
PAT	2,229	1,720	2,202	2,178	2,252	3,922	1,683	1,514	2,859	9,707	10,964	11,990	12,297	20.5
Equity	17,859	17,026	14,227	17,394	26,557	27,745	28,034	28,308	31,260	43,242	51,427	59,688	66,762	13.6
Net Debt	6,841	7,701	7,007	7,895	15,207	17,904	17,049	14,323	14,124	8,334	6,189	4,494	3,335	-20.6
Market Cap	16,333	14,746	13,308	15,287	34,295	28,917	27,883	27,550	44,082	59,759	64,605	116,032	127,862	26.1
EV	23,477	22,866	20,643	23,707	50,279	47,656	46,219	42,936	59,281	69,699	73,322	125,331	135,849	17.5
Capacity (mt)	54	56	61	60	82	103	104	113	122	134	133	136	136	4.7
Valuations														
EV (US\$/ton)	436	411	341	395	615	464	447	381	488	522	551	924	1,002	
EV/EBITDA (x)	) 3.7	4.1	3.3	4.5	6.1	4.6	6.1	4.5	5.2	3.4	2.9	4.9	5.1	
EBITDA (US\$/	ton) 119	101	102	88	101	101	74	85	94	155	191	187	196	
Debt/Equity (%	%) 38.3	45.2	49.2	45.4	57.3	64.5	60.8	50.6	45.2	19.3	12	7.5	5	
									~	<u> </u>		1		

Source: Bloomberg, IISI and Motilal Oswal Securities

Net sales, EBITDA and PAT of the eight companies combined have grown at CAGR of 15.1%, 16.1% and 20.5% respectively during 2000-2006, whereas volumes have grown at CAGR of merely 4.7% from 103m tons in 2000 to 136m tons in 2006. The shareholders' equity, market capitalization and enterprise value of the eight companies combined have grown at CAGR of 13.6%, 26.1% and 17.5% during the same period. However, net debt of combined entity has come down at CAGR of 20.6% during the period and debt:equity ratio is down from its peak of 65% in 2000 to 8% in 2006. Valuations too have run up beyond the historical range. The companies have been trading at an average EV/ton from US\$400-US\$600 in past decade. However, the valuations have broken out of historical range and companies are trading at an average which is above replacement cost.

Rapid growth in steel production in China has left no room for companies outside China to invest significantly in organic growth. Rising cost of iron ore and ocean freight has forced China's steel producers to think before adding more capacity, as they will be unable to export economically post importing required raw materials. The iron ore advantage is rising for companies in countries such as India and Brazil. Local consumption of steel in India and Brazil is growing rapidly, but on a smaller base. Falling debt:equity ratio and

insufficient investment opportunities in organic growth is forcing mergers and acquisitions across the globe. We believe the process of consolidation is likely to intensify further in an effort to combine the best of technology in the Western world with the low-cost advantages of India, Brazil and Russia. Bottomline: Industry has little choice but to consolidate.

#### SAIL at a sizeable discount

Though the valuations of global steel companies have run up, SAIL which has huge iron ore reserves and a substantial asset base, is available at a sizeable discount. Despite its positioning in the public sector, SAIL has an EBITDA of US\$176 per ton, which is likely to increase to US\$198 per ton in FY09E. Yet SAIL is trading at EV/EBITDA of 3.4x on 1-year forward, estimate, a substantial discount to the average of the eight companies this report studies.

#### KEY FINANCIALS (US\$ M)

	EIGHT CO.	ARC-MITTAL	SA	IL	TATA-C	CORUS	TATA S	TEEL	CORUS
	CY07*	CY07*	FY08E	FY09E	FY08E	FY09E	FY08E	FY09E	CY07*
					(A+B)	(C+B)	(A)	(C)	(B)
Key Financials (US\$ m)									
Sales	155,061	93,202	7,979	8,573	22,925	24,208	5,531	6,814	17,395
EBITDA	26,544	16,172	2,327	2,811	3,236	3,870	1,739	2,373	1,497
PAT	12,297	8,892	1,494	1,910	1,145	1,703	1,072	1,630	777
Net Debt	3,335	31,550	-2,431	-3,064	11,761	11,460	-883	-1,183	916
Market Cap	127,862	63,400	10,184	10,184	6,297	6,297	6,297	6,297	11,727
Enterprise Value	135,849	94,950	7,753	7,120	18,058	17,757	5,415	5,114	12,643
Shares (m)		1,378	4,130	4,130	609	609	609	609	1,015
Stock price (US\$/share)		46	2	2	10	10	10	10	12
Capacity (mt)	136	110	13	14	27	27	9	9	18
Valuations									
EV (US\$/ton)	1,002	863	588	502	675	664	637	602	692
EV/EBITDA (x)	5	5.9	3.3	2.5	5.6	4.6	3.1	2.2	8.4
EBITDA (US\$/ton)	196	147	176	198	121	145	205	279	82

Note: We are adding the market cap of corus at 608p into the debt of combined entitiy; \* consensus; Eight Co. = consolidated financials of eight companies discussed earlier. Arc-Mittal= Arcelor and Mittal combined.

#### Unfettered growth via brownfield expansion

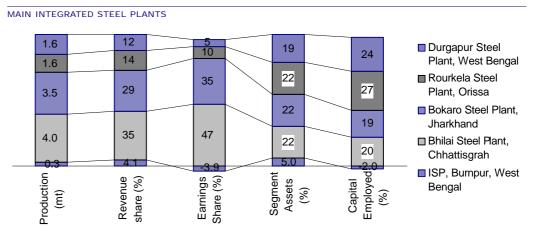
Despite its status as a public sector undertaking, SAIL is likely to grow faster through brownfield expansion while the others will have to depend on greenfield projects for growth — which would involve struggling to acquire land and iron ore linkage.

SAIL operates five integrated steel plants, three alloy and special steel plants, nine captive iron ore mines, five limestone, two dolomite and three collieries besides generating 700MW of captive power (including JVs). A central marketing organization (CMO) transacts business through its network of 34 branch sales offices spread across the four regions, 42 warehouses, 14 customer contact offices and 16 consignment agents.

SAIL has been mining iron ore at the rate of 23mt p.a. from its existing mines which have reserves of 550mt, sufficient for the next 22 years. Another 995mt of reserves with SAIL would be developed to meet growing consumption. The merger of IISCO Burnpur has brought the huge 1.2bn ton iron ore reserves of the Chiria mine into the fold of the company. Some of the leases of the Chiria mines were cancelled by the state government of Jharkhand stating underinvestment, though this is disputed by SAIL. Though the matter is currently *sub-judice*, we believe the Chiria mines would eventually come into SAIL's fold, as the latter has already drawn up major capex plans and also has the potential to increase investment (if required) in a greenfield project at Bokaro in the state of Jharkhand to protect it from private players.

**Growth plan to 20mt p.a. of saleable steel capacity advanced to 2010:** SAIL is on a growth path to achieve 20mt p.a. of saleable steel capacity at capex of Rs370b. In a media release, SAIL highlighted completion of the stated growth plan by year 2010, two years earlier than its previously stated objective of completion by 2012. The company has got an in-principle approval of additional Rs106b capex during 3QFY07, raising the total approved capex to Rs280b (of the Rs370b capex).

**Only two out of five main plants contribute 82% to earnings:** Bhilai and Bokaro together generate 82% of earnings from 44% of assets and 39% of capital employed. Rs85bn capex towards quality and cost effectiveness would expand the margins of Rourkela (RSP) and Durgapur (DSP) Steel Plants and provide earnings growth.



Source: Annual report of SAIL for FY06

**Improving product mix:** The current product mix comprises 20% semi-finished products which are sold to re-rollers located in the north and eastern parts of the country. SAIL's corporate plan 2010 would reduce the sale of semi-finished products to 4% and increase the volume of value-added products and thereby de-risk earnings.

**Improving yield via tightening operating costs:** SAIL would be phasing out production of 5mt p.a. of crude steel production (40%) via the ingot casting route and will replace it with the continuous casting method. According to our estimates, this move would save Rs500 per ton (about Rs2.5b per annum) in operating cost and generate further savings in terms of yield improvement.

#### Raising volume assumptions and upgrading earnings

We are raising our volume assumptions from 11.9m ton to 11.98m ton for FY07 and from 12.5m ton to 12.8m ton (up 7% YoY) for FY08. We are now assuming 1.3% YoY (earlier 5%) decline in average blended realization for FY08. Hence we have upgraded our EBITDA estimate to Rs104.7b for FY08 and introduced FY09 estimates. We estimate EBITDA of Rs126.5b for FY09 factoring further 1.4% YoY decline in realization along with volume growth of 9% YoY.

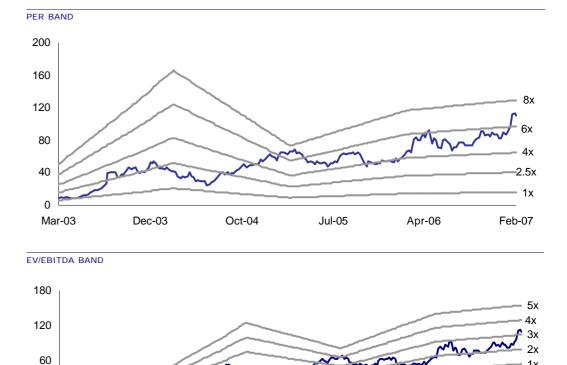
In line with this, we are upgrading our EPS estimate to Rs16.3 (earlier Rs11) for FY08 and are introducing an EPS estimate of Rs20.8 for FY09E. A Rs1,000 per ton change in average blended realization results in a change of EPS by Rs2.1. However, blended realization has lower volatility versus benchmark HRC prices due to its product mix.

#### Valuation and new target price

SAIL currently has Rs85b (Rs20.6 per share) in cash and cash equivalents. Adjusting for cash, the stock is trading at an attractive PE of 5.9x and EV/EBITDA of 3.4x on FY08E estimates. The valuations are extremely attractive. Historically (our sample period includes one of the worst cyclical downturns), steel stocks have traded in the range of US\$400-US\$600 of EV/ton, close to replacement costs. Replacement costs have shot up significantly and it costs nearly US\$800-US\$900 per ton to set up integrated steel manufacturing facilities, which will have a gestation period of minimum three years. The replacement cost is even higher for setting up facilities to produce higher-end products catering to the demand of the auto sector. Therefore, steel majors find it more attractive to buy existing facilities rather than setting up greenfield projects.

We believe the ground is set for re-rating the sector as steel companies would continue to remain profitable due to prolonged length of the current cycle, as this time, growth is unfolding from a much larger population base (China and India together have 40% of world population).

In view of rising iron ore prices, falling coking coal prices, reducing manpower costs, improving product mix and increasing consolidation in the global industry, we recommend **Buy** on SAIL and set our 12-month target price at Rs156 per share (upside 35%) based on 5x our EV/EBITDA estimate for FY08.



#### 3QFY07 result highlights

Dec-02

Apr-03

Jul-02

0

-60

Mar-02

#### Both volumes and higher realization fueled topline growth

Aug-03

Dec-03

Net sales are up 35% YoY to Rs87.6b. Topline growth is on account of 8.6% higher sales volumes (3mt) of saleable steel and 24% higher average blended realization. The average blended realization of Rs28,325 per ton during the quarter is lower QoQ by Rs651 per ton, in line with general trend in prices.

Jan-05

Aug-04

Apr-04

May-05

Sep-05

Jan-06

May-06

Sep-06

#### Higher blended sales realization (YoY) alone expanded margins

EBITDA (adjusted) increased 91% YoY to Rs26.2b and margins improved 90bp YoY to 30.7%. Growth in EBITDA is driven by higher realization despite higher costs on account of coking coal and other expenditure.

EBITDA of Rs8,701per ton has improved by Rs784 per ton QoQ (+10%) despite Rs651 per ton lower realization on account of savings from falling coking coal prices and leveraging of fixed costs. Segmental EBIT (Rs per ton) improved QoQ for Durgapur (+2612), Rourkela (+1316) and Bokaro (+958) though there was marginal decline in the case of Bhilai (-707).

1x

Feb-07

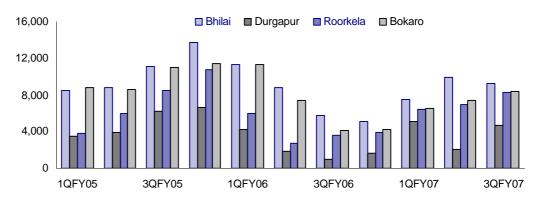
#### TREND IN COSTS (RS/TON)

	1QFY06	2QFY06	3QFY06	4QFY06	1QFY07	2QFY07	3QFY07	4QFY07E
Blended NSR	29,908	25,747	22,819	23,958	27,766	28,976	28,325	28,300
Raw Materials	9,275	8,925	9,386	10,059	9,893	10,745	10,115	9,571
Staff Cost	3,848	3,669	2,833	3,353	4,087	3,672	3,311	3,648
Stores & Spares	1,812	2,027	1,802	2,007	2,121	2,284	2,121	2,007
Power & Fuel	2,084	2,117	1,948	2,122	2,177	2,247	2,088	2,128
Other Exp.	2,303	2,010	1,905	2,478	2,280	2,110	1,988	1,881
EBITDA	10,586	7,000	4,944	3,939	7,208	7,918	8,701	9,066

Note: The expenditures have been normalized to adjust increase/decrease in stock;

Source: Company/Motilal Oswal Securities





#### QUARTERLY PERFORMANCE

QUARTERLY PERFORMAN	02									RS MILLION)
Y/E MARCH		FY					07		FY06	FY07E
	1Q	2 Q	3 Q	4 Q	1Q	2 Q	3 Q	4QE		
Sales (tons)	1,886,000	2,804,000	2,776,000	3,848,000	2,470,000	2,947,000	3,014,000	3,553,000	11,300,000	11,984,000
Change (YoY %)	-8.1	7.2	-5.7	12.5	31.0	5.1	8.6	-7.7	2.4	6.1
Realization (Rs per Ton)	29,908	25,747	22,819	23,958	27,766	28,976	28,325	28,300	25,468	28,362
Change (YoY %)	16.5	0.0	-11.0	-12.6	-7.2	12.5	24.1	18.1	-3.5	11.4
Net Sales	56,407	72,196	63,345	92,190	68,583	85,391	85371	100550	287,786	339,894
Change (%)	7.0	7.7	-18.5	-1.6	21.6	18.3	34.8	9.1	-1.2	18.1
EBITDA	19,965	19,627	13,726	15,159	17,803	23,333	26,226	32,212	68,474	99,574
Change (YoY %)	23.6	-6.6	-55.9	-62.0	-10.8	18.9	91.1	112.5	-36.7	45.4
As % of Net Sales	35.4	27.2	21.7	16.4	26.0	27.3	30.7	32.0	23.8	29.3
EBITDA per ton	10,586	7,000	4,944	3,939	7,208	7,918	8,701	9,066	6,060	8,309
Interest	1,320	1,212	1,056	1,139	937	924	906	900	4,678	3,667
Depreciation	2,923	2,866	3,112	3,041	2,959	3,035	3,299	3,350	12,073	12,643
Other Income	1,320	1,524	1,089	1,600	1,513	2,261	2,231	1,997	5,334	8,001
PBT (before EO Inc.)	17,042	17,074	10,646	12,578	15,421	21,635	24,252	29,958	57,057	91,266
EO Income(exp)					5,582		-1,910			3,672
PBT (after EO Inc.)	17,042	17,074	10,646	12,578	21,002	21,635	22,342	29,958	57,057	94,938
Total Tax	5,777	5,801	3,800	1,546	7,138	7,207	7,630	10,246	16,928	32,221
% Tax	33.9	34.0	35.7	12.3	34.0	33.3	34.2	34.2	29.7	33.9
Reported PAT	11,265	11,272	6,846	11,032	13,864	14,428	14,712	19,713	40,130	62,717
Adjusted PAT	11,265	11,272	6,846	11,032	10,179	14,428	15,969	19,713	40,130	60,291
Change (YoY %)	1.3	-25.5	-54.8	-58.8	-9.6	28.0	133.3	78.7	-41.1	50.2

E: MOSt Estimates ; Note- Quarterly result and full year numbers don't add up due to restatement of numbers

### MOTILAL OSWAL

INCOME STATEMENT				(R:	s Million)
Y/E MARCH	2005	2006	2007E	2008E	2009E
Gross Sales	320,851	327,078	393,406	415,514	448,720
Less: Excise	34,551	44,422	53,512	56,474	62,957
Net Sales	286,299	282,656	339,894	359,041	385,764
Change (%)	33.0	-1.3	20.3	5.6	7.4
EBIDTA	102,126	63,450	99,574	104,711	126,517
Change (%)	152.9	-37.9	56.9	5.2	20.8
% of Sales	35.7	22.4	29.3	29.2	32.8
Depreciation	11,270	12,073	12,643	13,400	13,700
EBIT	90,856	51,377	86,931	91,311	112,817
Int.& Finance Charges	6,051	4,678	3,667	3,000	2,500
Other Revenues and Int.	7,541	10,464	8,001	12,001	18,000
PBT before EO	92,347	57,164	91,266	100,312	128,317
Extra ordinary Item	1,307	-107	5,582	0	0
PBT	93,654	57,057	96,847	100,312	128,317
Current Tax	7,041	19,381	32,910	33,103	42,345
Defrred Tax	18,443	-2,454	-689	0	0
Effective Rate (%)	7.5	34.0	34.0	33.0	33.0
Reported PAT	68,170	40,130	64,626	67,209	85,972
Change (%)	159.4	-41.1	61.0	4.0	27.9
% of Net Sales	23.8	14.2	19.0	18.7	22.3
Adjusted PAT	85,404	37,746	60,253	67,209	85,972
Change (%)	226.1	-55.8	59.6	11.5	27.9

BALANCE SHEET				(Rs	Million)
Y/E MARCH	2005	2006	2007E	2008E	2009E
Share Capital	41,304	41,304	41,304	41,304	41,304
Reserves and Surplus	61,763	84,710	139,917	197,706	274,259
Loans	57,698	42,976	29,976	17,476	17,476
Deferred Tax Liability	18,443	14,845	14,156	14,156	14,156
Capital Employed	179,208	183,835	225,353	270,643	347,195
Gross Fixed Assets	280,435	293,605	306,355	336,355	396,355
Less: Depreciation	155,584	171,983	184,626	198,026	211,726
Net Fixed Assets	124,851	121,621	121,729	138,329	184,629
Capital WIP	3,665	7,579	7,579	7,579	7,579
Investments	6,067	2,920	2,920	2,920	2,920
Inventory	42,207	62,101	55,965	59,228	60,373
Sundry Debtors	19,085	18,817	23,280	24,592	26,422
Cash & Bank Balances	61,321	61,726	112,150	139,720	168,210
Interest Receivable/Accr	1,422	855	855	855	855
Loans and Advances	19,302	30,338	30,338	30,338	30,338
Sundry Creditors	22,075	24,274	26,336	27,872	28,411
Other Current Liabilities	25,714	27,643	32,921	34,840	35,513
Provisions	53,872	72,364	72,364	72,364	72,364
Net Current Assets	41,676	49,556	90,967	119,656	149,909
Net Current Assets With	-19,646	-12,171	-21,183	-20,064	-18,301
M isc. Exp. not Written Of	2,949	2,158	2,158	2,158	2,158
Application of Fund:	179,208	183,835	225,353	270,643	347,195

E: MOSt Estimates

RATIO					
Y/E MARCH	2005	2006	2007E	2008E	2009E
Basic (Rs)					
EPS	20.7	9.1	14.6	16.3	20.8
Cash EPS	19.2	12.6	18.7	19.5	24.1
Book Value per Share	24.2	30.0	43.4	57.3	75.9
Dividend Per Share	3.7	2.3	2.3	2.3	2.3
Valuation (x)					
P/E		12.7	8.0	7.1	5.6
Cash PE		9.2	6.2	6.0	4.8
EV/EBITDA		7.3	4.0	3.4	2.6
EV/Sales		1.6	1.2	1.0	0.9
EV(Rs/Tonne)		39,210	31,429	26,260	23,201
Price to Book Value		3.9	2.7	2.0	1.5
Profitability Ratios (	%)				
RoE	85.3	30.5	33.6	28.4	27.4
RoCE	54.9	33.6	42.1	38.2	37.7
Turnover Ratios					
Debtors (Days)	24	24	25	25	25
Inventory (Days)	84	24 103	25 85	25 85	85
		40			
Creditors (Days)	44		40	40	40
Working Capital (Days)	53	64	98	122	142
Asset Turnover (x)	1.6	1.5	1.5	1.3	1.1
Leverage Ratio					
Debt/Equity (x)	0.6	0.3	0.2	0.1	0.1
CASH FLOW STATEME	ΝТ			(Rs	Million)
Y/E MARCH	2005	2006	2007E	2008E	2008E
Operating Profit/(Loss) t	93,654	57,057	96,847	100,312	128,317
Depreciation & Amort.	11,270	12,073	12,643	13,400	13,700
Interest Paid	6,051	4,678	3,667	3,000	2,500
Direct Taxes Paid	-7,041	-19,381	-32,910	-33,103	-42,345
(Inc)/Dec in Working Car	-7,839	-7,475	9,013	- 1,119	-1,763
CF from Oper. Activ	96,094	46,952	89,259	82,489	100,409
Other Items	-1,378	-4,581	00,200	02,403	100,400
CF after EO Items	94,716	<b>42,370</b>	89,259	82,489	100,409
(Inc)/Dec in Fixed Assets	-3,150	-17,084	-12,750	-30,000	-60,000
(Inc)/Dec in Misc Exp.	836	791	2,700	00,000	00,000
(Pur)/Sale of Invest.	-635	3,147	0	0	0
CF from Inv. Activity	-2,950	- 13, 146	- 12,750	-30,000	-60,000
Free Cash Flows	-2,930 93,144	33,805	76,509	52,489	40,409
Inc / (Dec) in Debt	-29,190	-14,722	-13,000	-12,500	0
Interest Paid	,	-4,678	- 3,667		
	-6,051 15.276			-3,000	-2,500
Dividends Paid	-15,376	-9,419	-9,419	-9,419 - <b>24</b> 919	-9,419
CF from Finan. Activ	-50,617	-28,819	-26,086	-24,919	- 11,919
Inc / ( Dec) in Cash	41,150	405	50,423	27,570	28,490
Add: Opening Balance	20,172	61,321	61,726	112,150	139,720
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RATIO

Closing Balance

61,321 61,726 112,150 139,720 168,210



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