UBS

# UBS Investment Research

# India Steel Sector

Global Equity Research

India

Steel

Rating Downgrade

## Deeper cut on our steel view

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- **Macro outlook deteriorating fast**

UBS Steel analysts, Andrew Snowdowne and Timna Tanners believe that the rapid fall in steel prices is a reflection of lack of demand as well as the credit crunch, which has become worse as we face potentially the slowest rate of global economic expansion since 1982 at 1.3% for 09E.

- **Apparent consumption in India; production cuts and price reductions**

Within our lower global apparent steel demand forecast, we have also brought down our Indian consumption estimate from c.8.5% growth to 6.1% growth in 09. We now have factored an average steel price realization of Rs 32,000/tn of basic HRC grade steel down from Rs 34,000/tn built in earlier. We assume Indian companies cut production by 3.5% and 5% in 10/11E, respectively.

- **EPS downgrades; significantly below consensus**

We cut 09E/10E EPS for the entire Indian steel sector by 5% and 28% respectively as we believe global weakness will be felt on Indian shores as well, despite the relative resilience of steel demand in the country. We believe the near term visibility is negative as we not only expect production cuts and falling prices but also slowing consumption growth within the country as new projects get no or delayed financial closures.

- **Valuation: We use DCF to arrive at our 12-month target prices**

We rate SAIL Buy, Tata Steel Neutral and JSW Sell – lowering our 12-month price targets from Rs 180 to Rs 125 for SAIL, from Rs450 to Rs230 for Tata Steel and from Rs450 to Rs300 for JSW Steel.

**Table 1: Valuation comparison**

| | EV/EBITDA(x) | | | Pre-exp PE(x) | | | P/BVPS (x) | | |
|---|---|---|---|---|---|---|---|---|---|
| | FY08 | FY09E | FY10E | FY08 | FY09E | FY10E | FY08 | FY09E | FY10E |
| SAIL | 2.2 | 2.3 | 2.6 | 4.6 | 5.0 | 6.2 | 1.5 | 1.2 | 1.1 |
| Tata Steel | 3.0 | 2.8 | 3.0 | 2.7 | 2.2 | 2.9 | 0.4 | 0.4 | 0.4 |
| JSW Steel | 5.4 | 4.4 | 3.5 | 3.5 | 4.0 | 4.6 | 0.8 | 0.7 | 0.6 |
| **Average** | **3.2** | **2.9** | **2.6** | **4.0** | **3.9** | **3.6** | **1.1** | **1.0** | **0.8** |

Source: Company data, UBS estimates; Priced on close of 31st Oct 2008

## Steel Price Outlook

Andrew Snowdowne and Timna Tanners are lowering steel price forecasts used in modelling steel company earnings for 2009 and 2010, to reflect a weaker macroeconomic outlook and lower forecast raw material prices for iron ore and coking coal. They have looked at margins above material costs in past downturns as a guide to how far prices may fall. They believe UBS prices estimates are now considerably below consensus views for steel prices, iron ore, and coking coal.

We show the forecast changes in Table 2 below:

**Table 2: Change in EU steel price estimates**

| | Old Prices | | | New Prices | | | Change % | | |
|---|---|---|---|---|---|---|---|---|---|
| | FY09E | FY10E | FY11E | FY09E | FY10E | FY11E | FY09E | FY10E | FY11E |
| **EU export HRC (US$/t)** | 939 | 768 | 735 | 805 | 474 | 544 | -14.2% | -38.3% | -26.0% |
| **EU domestic HRC (€/t)** | 677 | 593 | 573 | 619 | 427 | 483 | -8.5% | -28.0% | -15.7% |
| **EU domestic CRC (€/t)** | 733 | 650 | 631 | 676 | 485 | 541 | -7.9% | -25.5% | -14.3% |
| **EU domestic HDG (€/t)** | 762 | 685 | 666 | 705 | 520 | 576 | -7.6% | -24.2% | -13.5% |

Source: UBS estimates

In the short term UBS believes steel prices could fall more sharply than the market (particularly the sell-side) is currently forecasting. Key concerns include:

- Falling production is reflecting a lack of demand, partly fuelled by the credit crunch, rather than proactive supply cuts to avoid steel price falls. We think it is too late to think about pre-emptive cutbacks and we are seeing mills shutter facilities due simply to an absence of orders.

- Despite the recent stimulus package in China, we believe that the deceleration in steel demand can continue in the near term. Inventories in China and many recently robust economies have quickly become bloated relative to the sharp drop in demand internally and for export.

- We are concerned there has been no proactive effort by major mining companies to curtail iron ore and coking coal production, even as steel mills cut output. Downward pressure is now being felt on all inputs into production processes. As a result, operating costs may provide a lower floor than current prices. This is evidenced through lower scrap prices and raw materials bought on the spot market and also falling energy and freight costs.

- History tells us that prices in a recession can fall well below the level where high cost producers fail to cover their costs. Ideally, producers could quickly curtail production in a slowing demand environment in order to bring a market back to balance. We think the suddenness of demand weakness made it hard for mills to respond in a timely manner and now we think cutbacks largely reflect a lack of demand rather than pre-emptive cuts by the industry.

## Raw material outlook

As detailed in *UBS Global I/O™: Commodity Compass* dated 31 October 2008, our commodity team has also lowered price expectations for iron ore and coking coal. While large suppliers will likely cut production in order to mitigate some of the loss in demand, we expect they will also need to cut pricing, effectively giving up the price increase achieved in 2008. We now forecast a 40% yoy decline in both iron ore and coking coal contract prices effective as of 1 April 2009. The table below shows a summary of our latest raw material price assumptions applied to our models calendarized for March year ending.

**Table 3: Iron ore and coking coal contract price forecasts ($/t)**

| | Old Prices | | | New Prices | | | Change % | | |
|---|---|---|---|---|---|---|---|---|---|
| **Particulars** | **FY09E** | **FY10E** | **FY11E** | **FY09E** | **FY10E** | **FY11E** | **FY09E** | **FY10E** | **FY11E** |
| **Iron ore contract prices** | 86 | 73 | 62 | 86 | 54 | 52 | 0.0% | -25.7% | -17.0% |
| **Coking coal** | 300 | 250 | 230 | 300 | 180 | 130 | 0.0% | -28.0% | -43.5% |

Source: UBS estimates

In India, we reduce our benchmark HRC price estimate from Rs 34,000/tn to Rs 32,000 /tn for FY10 - all prices net of excise duty in INR. These are not comparable to the declines the UBS steel team has made in the EU and US regions primarily due to:

- The decline in steel prices in USD terms is higher than the INR terms that we are forecasting, due to INR depreciation against the USD.
- The relatively resilient demand in the Indian steel space.

In our steel update report, dated 6$^{th}$ October 2008 we highlighted that:

- Indian steel producers enjoy relatively higher raw material integration and therefore lower cash costs of production;
- India should remain a net importer of steel into FY11E or till large capacity expansion plans get executed.
- Indian industry fundamentals support expansion given lower production costs which provide a cushion during periods of expansions and down cycles.

## Change in steel price expectations

Following our global steel price downward revisions, we are making downward revisions to the steel realizations for the Indian steel companies using Rs32,000/t as the base case estimate for HRC ex-factory for Indian producers.

We expect SAIL to experience the sharpest decline in average realizations given its product mix is skewed to lower end steel compared to Tata and JSW Steel.

**Table 4: Change in Indian steel price assumptions (Rs/t)**

| Steel realizations | New estimates | | | Old estimates | | | % change | | |
|---|---|---|---|---|---|---|---|---|---|
| Rs/t | FY09E | FY10E | FY11E | FY09E | FY10E | FY11E | FY09E | FY10E | FY11E |
| **SAIL** | | | | | | | | | |
| Saleable steel | 36,917 | 32,000 | 32,000 | 37,432 | 36,684 | 38,518 | -1.4% | -12.8% | -16.9% |
| Average | 35,724 | 31,554 | 31,686 | 36,175 | 35,600 | 37,247 | -1.2% | -11.4% | -14.9% |
| **JSW Steel** | | | | | | | | | |
| HRC, including excise duty | 38,324 | 32,205 | 33,161 | 38,324 | 35,475 | 37,249 | 0.0% | -9.2% | -11.0% |
| Average | 35,788 | 31,661 | 32,019 | 35,289 | 34,158 | 35,359 | 1.4% | -7.3% | -9.4% |
| **Tata Steel (domestic)** | | | | | | | | | |
| HRC, excluding excise duty | 35,530 | 33,754 | 32,741 | 35,530 | 35,530 | 34,465 | 0.0% | -5.0% | -5.0% |
| Average * | 40,813 | 38,006 | 36,857 | 40,813 | 39,143 | 38,006 | 0.0% | -2.9% | -3.0% |
| **Tata Steel consolidated** | | | | | | | | | |
| Average | 46,718 | 35,419 | 39,634 | 53,028 | 46,395 | 46,693 | -11.9% | -23.7% | -15.1% |

Source: UBS estimates

As mentioned earlier, we have reduced our production estimates for the three Indian steel companies under UBS coverage – SAIL, Tata Steel (standalone) and JSW Steel – that account for c.47-48% of total steel production in India. With all three companies having capacity expansion coming on stream towards end FY10E and in FY11E we have therefore estimated that the production cuts will be harsh in the ensuing years.

Corus production cuts that have been announced for Q4 have been estimated to continue into FY10E and FY11E.

**Table 5: Production cuts built into UBS estimates**

| Particulars | | New estimates | | | Old estimates | | | Change | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | FY09E | FY10E | FY11E | FY09E | FY10E | FY11E | FY09E | FY10E | FY11E |
| SAIL - Saleable steel production | 000 tns | 12,372 | 13,372 | 14,372 | 12,372 | 13,622 | 15,122 | 0.0% | -1.8% | -5.0% |
| JSW - MF Slabs | 000 tns | 4,830 | 5,540 | 7,540 | 5,300 | 6,040 | 8,040 | -8.9% | -8.3% | -6.2% |
| Tata Steel (India) Steel Sales | 000 tns | 5,890 | 7,557 | 9,149 | 5,890 | 7,796 | 9,437 | 0.0% | -3.1% | -3.1% |
| Corus - Longs | 000 tns | 8,319 | 7,819 | 7,819 | 9,084 | 9,084 | 9,084 | -8.4% | -13.9% | -13.9% |
| Corus - Flats | 000 tns | 12,007 | 11,007 | 11,007 | 13,007 | 13,007 | 13,007 | -7.7% | -15.4% | -15.4% |
| **Production - India** | **000 tns** | **23,092** | **26,469** | **31,060** | **23,562** | **27,458** | **32,599** | **-2.0%** | **-3.6%** | **-4.7%** |

Source: UBS estimates

Given new iron ore and coking coal price estimates, we have factored these changes into our models. Table 5 below gives the detailed EBITDA/t estimates for our steel companies.

JSW Steel is the non-integrated player and hence despite the cut in HRC prices and the production cuts built in on an EBITDA/t basis JSW is a key beneficiary of the reduction in iron ore and coking coal prices.

### Table 6: EBITDA/t estimates (Rs/t)

| EBITDA | New estimates | | | Old estimates | | | % change | | |
|---|---|---|---|---|---|---|---|---|---|
| Rs/t | FY09E | FY10E | FY11E | FY09E | FY10E | FY11E | FY09E | FY10E | FY11E |
| SAIL | 8,282 | 6,866 | 8,448 | 8,602 | 9,388 | 9,175 | -3.7% | -26.9% | -7.9% |
| JSW Steel | 7,736 | 8,355 | 6,833 | 7,475 | 7,708 | 6,454 | 3.5% | 8.4% | 5.9% |
| Tata Steel standalone | 17,220 | 16,157 | 15,083 | 17,484 | 16,750 | 15,334 | -1.5% | -3.5% | -1.6% |
| Tata Steel consolidated | 7,114 | 5,199 | 6,962 | 7,787 | 7,789 | 7,339 | -8.6% | -33.3% | -5.1% |

Source: UBS estimates

### Table 7: Preference in India

| | Raw material integration | Gearing | Expansion Plan Ordered out | ∆ on product mix | ∆ on cost savings | Execution strength |
|---|---|---|---|---|---|---|
| SAIL | √ | √ | x | √ | √ | √ |
| Tata | x | x | √ | √ | √ | √ |
| JSW | x | x | √ | x | x | √ |

Source: UBS estimates

## SAIL

### Table 8: Change in estimates for SAIL

| Particulars | New forecasts | | | Old forecasts | | | Change in forecasts | | |
|---|---|---|---|---|---|---|---|---|---|
| | FY09E | FY10E | FY11E | FY09E | FY10E | FY11E | FY09E | FY10E | FY11E |
| Revenue | 441,976 | 421,934 | 455,395 | 447,553 | 484,939 | 563,250 | -1.2% | -13.0% | -19.1% |
| EBITDA | 112,459 | 100,806 | 130,411 | 116,423 | 136,881 | 147,744 | -3.4% | -26.4% | -11.7% |
| EBITDA margin | 25.4% | 23.9% | 28.6% | 26.0% | 28.2% | 26.2% | | | |
| Net profit | 70,358 | 57,059 | 63,198 | 73,695 | 85,698 | 91,140 | -4.5% | -33.4% | -30.7% |
| EPS | 17.0 | 13.8 | 15.3 | 17.8 | 20.7 | 22.1 | -4.5% | -33.4% | -30.7% |

Source: UBS estimates

We have reduced our base HRC price estimate for SAIL in FY09 / 10 / 11 and corresponding changes to the entire product basket. Our revenue forecasts have been adjusted down 13% and 19% for FY10/FY11. Our operating profit estimates for those years have also been brought down by 26% and 12%.

SAIL's net profit estimates have been reduced by 33% for FY10, and 30% for FY11 given the new lower steel price estimates we have built in and the production cuts.

### Table 9: SAIL – UBS vs. Consensus

| | UBSe | | | Consensus | | | UBS vs. Consensus | | |
|---|---|---|---|---|---|---|---|---|---|
| **Particulars** | **FY09E** | **FY10E** | **FY11E** | **FY09E** | **FY10E** | **FY11E** | **FY09E** | **FY10E** | **FY11E** |
| **Revenue** | 441,976 | 421,934 | 455,395 | 501,554 | 485,201 | 553,199 | -11.9% | -13.0% | -17.7% |
| **EBITDA** | 112,459 | 100,806 | 130,411 | 113,159 | 106,705 | 130,582 | -0.6% | -5.5% | -0.1% |
| **EBITDA margin** | 25.4% | 23.9% | 28.6% | 22.6% | 22.0% | 23.6% | | | |
| **Net profit** | 70,358 | 57,059 | 63,198 | 72,836 | 66,398 | 78,883 | -3.4% | -14.1% | -19.9% |

Source: UBS estimates, Reuters data

We are below consensus in our estimates across the board for steel companies.

We have brought down our DCF based price target for SAIL from Rs180 to Rs125 under the new scenario- while maintaining our BUY rating for SAIL.

SAIL is our top-pick in the Indian steel universe as:-

1. It remains the most inward looking company – and hence should gain the most from the resurgence of infrastructure spending in the country
2. It is the least expensive stock in the space, quoting at 2.3x EV/EBITDA FY09E
3. It is the most integrated of the Indian steel companies
4. It is expected to expand operations, while remaining the least levered of all the steel names.

## Tata Steel

### Table 10: Change in estimates for Tata consolidated

| | New forecasts | | | Old forecasts | | | Change in forecasts | | |
|---|---|---|---|---|---|---|---|---|---|
| | FY09E | FY10E | FY11E | FY09E | FY10E | FY11E | FY09E | FY10E | FY11E |
| **Revenue** | 1,553,438 | 1,281,146 | 1,414,604 | 1,709,308 | 1,613,917 | 1,698,483 | -9.1% | -20.6% | -16.7% |
| **EBITDA** | 187,758 | 177,227 | 199,429 | 192,359 | 207,269 | 207,328 | -2.4% | -14.5% | -3.8% |
| **EBITDA margin** | 12.1% | 13.8% | 14.1% | 11.3% | 12.8% | 12.2% | | | |
| **Net profit** | 68,368 | 59,880 | 70,620 | 71,437 | 81,479 | 75,897 | -4.3% | -26.5% | -7.0% |
| **EPS** | 93.6 | 72.8 | 85.9 | 97.8 | 99.1 | 92.3 | -4.3% | -26.5% | -7.0% |

Source: UBS estimates

We have reduced our base HRC price estimate for Tata in FY09 / 10 / 11 and corresponding changes to the entire product basket. Our revenue forecasts have been adjusted down 9% for FY09 and 21% for FY10 as we have built in production cuts in Corus in FY10E as well. Our operating profit estimate has also been brought down by 15%in FY10.

Tata's net profit estimate has been reduced by 26% for FY10, given the new lower steel price estimates compared with earlier.

### Table 11: UBS vs. Consensus for Tata Steel

| | UBSe | | | Consensus | | | UBS vs. Consensus | | |
|---|---|---|---|---|---|---|---|---|---|
| | FY09E | FY10E | FY11E | FY09E | FY10E | FY11E | FY09E | FY10E | FY11E |
| **Revenue** | 1,553,438 | 1,281,146 | 1,414,604 | 1,653,606 | 1,603,798 | 1,728,372 | -6% | -20% | -18% |
| **EBITDA** | 187,758 | 177,227 | 199,429 | 199,845 | 201,513 | 197,164 | -6% | -12% | 1% |
| **EBITDA margin** | 12.1% | 13.8% | 14.1% | 12.1% | 12.6% | 11.4% | | | |
| **Net profit** | 68,368 | 59,880 | 70,620 | 94,256 | 97,578 | 75,897 | -27% | -39% | -7% |

Source: UBS estimates, Reuters data

Our estimates are now lower than consensus numbers across all heads, primarily due to the change in steel price assumptions for the UK business. We have also not built in additional improvements in cost savings from the European businesses.

We have brought down our DCF based price target for Tata from Rs450 to Rs230 under the new scenario- while maintaining our Neutral rating. For Tata, with negative news on a weak Q4 in Europe the near-term news on the stock is not expected to be positive, despite good results expectations from Q209 results towards mid-November.

# JSW Steel

### Table 12: Change in estimates for JSW Steel

| | New forecasts | | | Old forecasts | | | Change in forecasts | | |
|---|---|---|---|---|---|---|---|---|---|
| | FY09E | FY10E | FY11E | FY09E | FY10E | FY11E | FY09E | FY10E | FY11E |
| **Revenue** | 207,502 | 214,537 | 286,352 | 221,676 | 245,361 | 331,077 | -6.4% | -12.6% | -13.5% |
| **EBITDA** | 42,378 | 53,424 | 60,656 | 44,628 | 53,755 | 63,162 | -5.0% | -0.6% | -4.0% |
| **EBITDA margin** | 20.4% | 24.9% | 21.2% | 20.1% | 21.9% | 19.1% | | | |
| **Net profit** | 15,189 | 13,308 | 11,565 | 17,423 | 14,317 | 13,738 | -12.8% | -7.0% | -15.8% |
| **EPS** | 75.7 | 66.3 | 57.6 | 86.8 | 71.3 | 68.4 | -12.8% | -7.0% | -15.8% |

Source: UBS estimates

We have reduced our base HRC price estimates for JSW in FY09 / 10 / 11 and corresponding changes to the entire product basket. Our revenue forecasts have been adjusted down 13% for FY10/FY11. JSW is the only company in India that gains from the reduction in iron ore and coking coal prices despite the production cuts and the benchmark price of HRC being built in lower. Our operating profit estimates remain flat compared to our earlier estimates, as we build in weaker coking coal prices.

JSW's net profit estimate has been reduced by 7% for FY10, given we have maintained the higher interest costs, and build in lower other income.

### Table 13: UBS vs. Consensus on JSW Steel

| | UBSe | | | Consensus | | | UBS vs. Consensus | | |
|---|---|---|---|---|---|---|---|---|---|
| | FY09E | FY10E | FY11E | FY09E | FY10E | FY11E | FY09E | FY10E | FY11E |
| **Revenue** | 207,502 | 214,537 | 286,352 | 207,229 | 246,733 | 322,938 | 0% | -13% | -11% |
| **EBITDA** | 42,378 | 53,424 | 60,656 | 42,549 | 57,442 | 68,964 | 0% | -7% | -12% |
| **EBITDA margin** | 20.4% | 24.9% | 21.2% | 20.5% | 23.3% | 21.4% | | | |
| **Net profit** | 15,189 | 13,308 | 11,565 | 17,465 | 24,199 | 29,399 | -13% | -45% | -61% |

Source: UBS estimates, Reuters data

Our estimates are now much lower than consensus numbers on profits as we have built in higher interest costs on the profit numbers.

We have brought down our DCF based price target for JSW from Rs 450 to Rs 300 under the new scenario- while we maintain our Sell rating.

JSW is our least preferred stock in the Indian steel universe as:-

1. Despite the fact that JSW's execution is among the best, progress in brownfield expansions is dependent on higher borrowing – while borrowing costs should increase from here;

2. It is the least integrated of all the steel names;

3. Its mining acquisitions are still some time away from making a meaningful difference to operations.

## Valuation and Price targets

We value the steel companies based on DCF of cashflows on known expansion plans. The table below details our assumptions on cost of debt, interim growth rates, terminal growth rates and beta assumed for DCF valuation.

### Table 14: DCF assumptions

| | SAIL | JSW Steel | Tata Steel |
|---|---|---|---|
| **WACC** | **13.2** | **13.1** | **13.5** |
| **Cost of Debt** | 10.0 | 13.0 | 12.5 |
| **Tax Rate** | 30% | 30% | 30% |
| **Gearing** | 15% | 30% | 20% |
| **Cost of Equity** | 14.3 | 14.8 | 15.3 |
| **Risk Free Rate** | 8.5 | 8.7 | 8.7 |
| **Beta** | 1.15 | 1.22 | 1.20 |
| **Market Risk Premium** | 5.0 | 5.0 | 5.0 |
| **Interim Growth Rate** | 12 | 12 | 10 |
| **Terminal Growth Rate** | 5% | 5% | 5% |

Source: UBS estimates

## Price targets

### Table 15: Price target changes and upside (%)

| | SAIL India | Tata Steel | JSW Steel |
|---|---|---|---|
| **Old Price targets** | 180 | 450 | 450 |
| **New price targets** | 125 | 230 | 300 |
| **Current price** | 85 | 210 | 305 |
| **Upside potential %** | 47% | 9% | -2% |

Source: UBS estimates

### Table 166 Valuation comparison

| | EV/EBITDA(x) | | | Pre-exp PE(x) | | | P/BVPS (x) | | |
|---|---|---|---|---|---|---|---|---|---|
| | FY08 | FY09E | FY10E | FY08 | FY09E | FY10E | FY08 | FY09E | FY10E |
| **SAIL** | 2.2 | 2.3 | 2.6 | 4.6 | 5.0 | 6.2 | 1.5 | 1.2 | 1.1 |
| **Tata Steel** | 3.0 | 2.8 | 3.0 | 2.7 | 2.2 | 2.9 | 0.4 | 0.4 | 0.4 |
| **JSW Steel** | 5.4 | 4.4 | 3.5 | 3.5 | 4.0 | 4.6 | 0.8 | 0.7 | 0.6 |
| **Average** | **3.2** | **2.9** | **2.6** | **4.0** | **3.9** | **3.6** | **1.1** | **1.0** | **0.8** |

Source: Company data, UBS estimates; Priced at close on 31st Oct 2008

## ■ Statement of Risk

Investing in Indian steel equities poses country, industry and company-specific risk. Valuations are impacted by the macroeconomic landscape as well as financial market stability and the dynamics of the underlying commodity.

## ■ Analyst Certification

Each research analyst primarily responsible for the content of this research report, in whole or in part, certifies that with respect to each security or issuer that the analyst covered in this report: (1) all of the views expressed accurately reflect his or her personal views about those securities or issuers; and (2) no part of his or her compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed by that research analyst in the research report.

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### UBS Investment Research: Global Equity Rating Allocations

| UBS 12-Month Rating | Rating Category | Coverage[1] | IB Services[2] |
|---|---|---|---|
| **Buy** | **Buy** | 56% | 36% |
| **Neutral** | **Hold/Neutral** | 35% | 33% |
| **Sell** | **Sell** | 8% | 27% |
| **UBS Short-Term Rating** | **Rating Category** | **Coverage[3]** | **IB Services[4]** |
| **Buy** | **Buy** | less than 1% | 32% |
| **Sell** | **Sell** | less than 1% | 14% |

1:Percentage of companies under coverage globally within the 12-month rating category.
2:Percentage of companies within the 12-month rating category for which investment banking (IB) services were provided within the past 12 months.
3:Percentage of companies under coverage globally within the Short-Term rating category.
4:Percentage of companies within the Short-Term rating category for which investment banking (IB) services were provided within the past 12 months.

Source: UBS. Rating allocations are as of 30 September 2008.

### UBS Investment Research: Global Equity Rating Definitions

| UBS 12-Month Rating | Definition |
|---|---|
| **Buy** | FSR is > 6% above the MRA. |
| **Neutral** | FSR is between -6% and 6% of the MRA. |
| **Sell** | FSR is > 6% below the MRA. |
| **UBS Short-Term Rating** | **Definition** |
| **Buy** | Buy: Stock price expected to rise within three months from the time the rating was assigned because of a specific catalyst or event. |
| **Sell** | Sell: Stock price expected to fall within three months from the time the rating was assigned because of a specific catalyst or event. |

**KEY DEFINITIONS**

**Forecast Stock Return (FSR)** is defined as expected percentage price appreciation plus gross dividend yield over the next 12 months.
**Market Return Assumption (MRA)** is defined as the one-year local market interest rate plus 5% (a proxy for, and not a forecast of, the equity risk premium).
**Under Review (UR)** Stocks may be flagged as UR by the analyst, indicating that the stock's price target and/or rating are subject to possible change in the near term, usually in response to an event that may affect the investment case or valuation.
**Short-Term Ratings** reflect the expected near-term (up to three months) performance of the stock and do not reflect any change in the fundamental view or investment case.

**EXCEPTIONS AND SPECIAL CASES**

**UK and European Investment Fund ratings and definitions are :**
Buy: Positive on factors such as structure, management, performance record, discount; Neutral: Neutral on factors such as structure, management, performance record, discount; Sell: Negative on factors such as structure, management, performance record, discount.
**Core Banding Exceptions (CBE) :** Exceptions to the standard +/-6% bands may be granted by the Investment Review Committee (IRC). Factors considered by the IRC include the stock's volatility and the credit spread of the respective company's debt. As a result, stocks deemed to be very high or low risk may be subject to higher or lower bands as they relate to the rating. When such exceptions apply, they will be identified in the Company Disclosures table in the relevant research piece.

## Company Disclosures

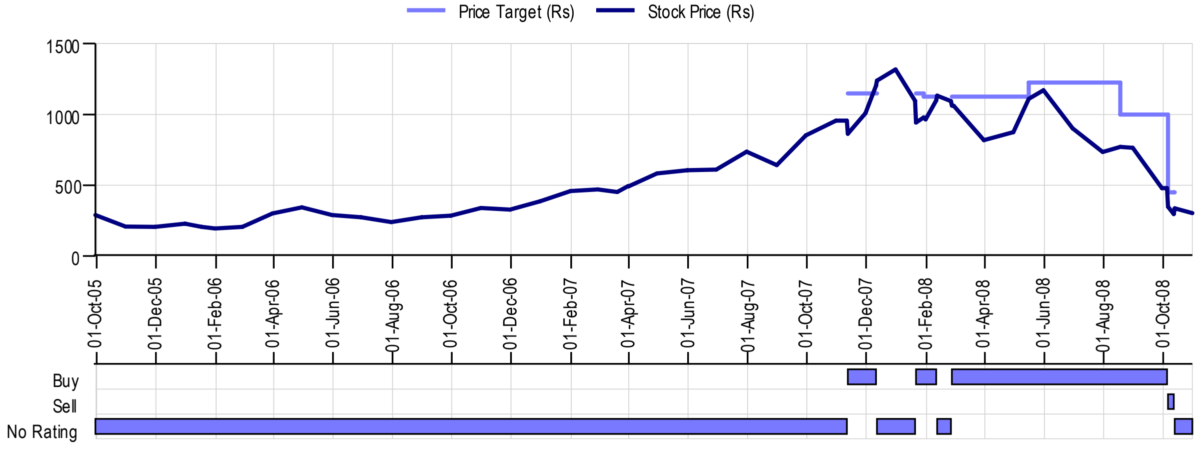
| Company Name | Reuters | 12-mo rating | Short-term rating | Price | Price date |
|---|---|---|---|---|---|
| **JSW Steel** | JSTL.BO | Suspended | N/A | Rs304.75 | 31 Oct 2008 |
| **Steel Authority of India** | SAIL.BO | Buy (CBE) | N/A | Rs85.25 | 31 Oct 2008 |
| **Tata Steel Ltd.**[22] | TISC.BO | Neutral | N/A | Rs210.10 | 31 Oct 2008 |

Source: UBS. All prices as of local market close.
Ratings in this table are the most current published ratings prior to this report. They may be more recent than the stock pricing date

22. UBS AG, its affiliates or subsidiaries held other significant financial interests in this company/entity as of last month`s end (or the prior month`s end if this report is dated less than 10 working days after the most recent month`s end).

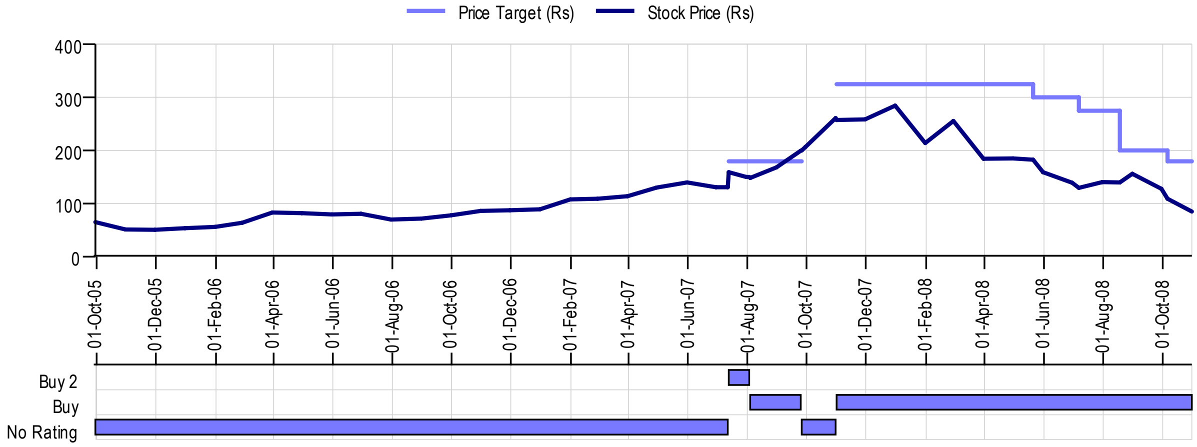
Unless otherwise indicated, please refer to the Valuation and Risk sections within the body of this report.

## JSW Steel (Rs)



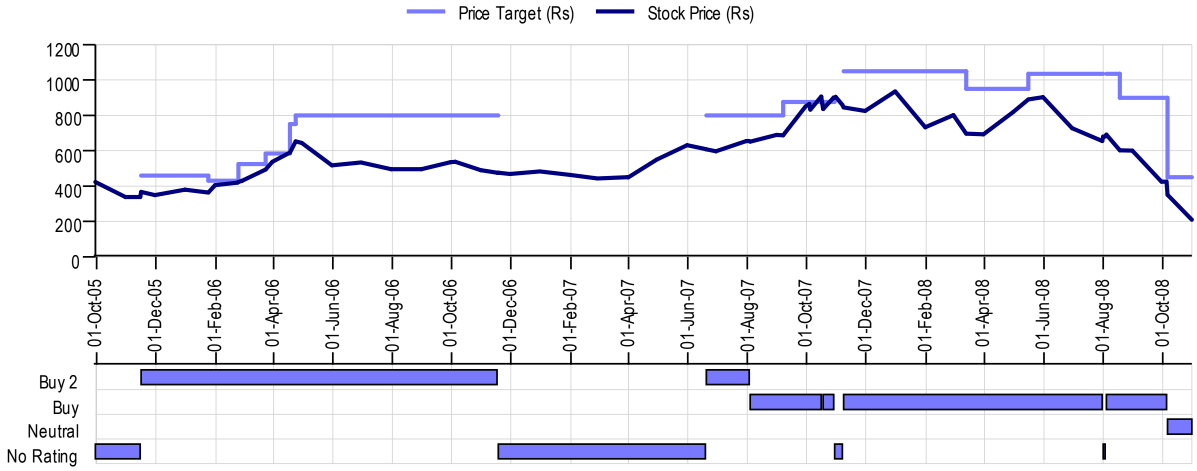

Source: UBS; as of 31 Oct 2008

## Steel Authority of India (Rs)




Source: UBS; as of 31 Oct 2008

## Tata Steel Ltd. (Rs)




Source: UBS; as of 31 Oct 2008

Note: On August 4, 2007 UBS revised its rating system. (See 'UBS Investment Research: Global Equity Rating Definitions' table for details). From September 9, 2006 through August 3, 2007 the UBS ratings and their definitions were: Buy 1 = FSR is > 6% above the MRA, higher degree of predictability; Buy 2 = FSR is > 6% above the MRA, lower degree of predictability; Neutral 1 = FSR is between -6% and 6% of the MRA, higher degree of predictability; Neutral 2 = FSR is between -6% and 6% of the MRA, lower degree of predictability; Reduce 1 = FSR is > 6% below the MRA, higher degree of predictability; Reduce 2 = FSR is > 6% below the MRA, lower degree of predictability. The predictability level indicates an analyst's conviction in the FSR. A predictability level of '1' means that the analyst's estimate of FSR is in the middle of a narrower, or smaller, range of possibilities. A predictability level of '2' means that the analyst's estimate of FSR is in the middle of a broader, or larger, range of possibilities. From October 13, 2003 through September 8, 2006 the percentage band criteria used in the rating system was 10%.

## Global Disclaimer



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