

# JSW Steel

# Rs567 OUTPERFORMER

# Catch it young

products.

Stock dataReutersJNDL.BOBloombergJSTL IN1-yr high/low (Rs)645 / 2051-yr avg daily volumes (m)0.24Free float (%)53.5

**INDIA RESEARCH** 

12 June 2007

BSE Sensex: 14131

#### Price performance



#### Performance (%)

|           | 3-mth | 6-mth | 1-yr  | 3-yr  |
|-----------|-------|-------|-------|-------|
| JSW Steel | 39.8  | 71.5  | 134.0 | 224.9 |
| Sensex    | 13.2  | 1.9   | 45.9  | 191.2 |

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S.S. Kantilal Ishwarlal Securities Pvt. Ltd. (SSKI) 701-702 Tulsiani Chambers, 7th Floor (East Wing), Nariman Point, Mumbai 400 021. Fax: 91-22-2204 0282 JSW Steel (JSWS) is poised for spectacular growth. The company has lined up a 2.6x jump in capacity over FY06-10 to 10mtpa, which would arguably make it the second largest steel manufacturer in India. Along with this, cost reduction through economies of scale and forward integration into value added products provide

strong levers for 22% CAGR in profits over FY07-09E. Even as JSWS grows its

balance sheet by 2x over FY07-10, return ratios are likely to remain healthy on the

back of falling capital cost per tonne and high operating leverage. Initiating coverage with a price target of Rs729 per share. JSWS – crouching tiger: JSWS is set to take a significant leap forward with capacity expected to increase 2.6x over FY06-10 to 10m tpa. Driven by higher capacity, we expect 25% CAGR in JSWS's sales volumes over FY07-09 – the fastest among peers. JSWS derives significant cost reduction from a combination of COREX and blast furnace technology. The company is rapidly forward integrating into value added products including cold rolled, galvanised, colour coated and value-added long

**Return ratios to remain strong:** Even as JSWS embarks on a Rs170bn expansion over the next few years, we do not expect debt-equity ratio to cross 1.1x. JSWS has a track record of strong project execution and has also been able to bring down specific investment cost per tonne with each phase of expansion. Though return ratios are likely to fall from their highs, they would still remain attractive (24.8% RoE for FY09E).

**Stock offers scale and growth visibility:** At 5.5x FY08E earnings, we see room for further appreciation in the stock price. Notably, JSWS offers significant volume growth over the next few years, and hence is not a pure leverage story on steel prices. However, considering the scale and growth visibility, we believe the stock deserves to trade at a premium to peers. We initiate coverage on JSWS with a price target of Rs729 per share.

| Key financials         |        |        |        |        |         |
|------------------------|--------|--------|--------|--------|---------|
| Year to March 31       | FY05   | FY06   | FY07   | FY08E  | FY09E   |
| Net sales (Rs m)       | 66,794 | 61,801 | 85,944 | 98,110 | 107,670 |
| Adj. net profit (Rs m) | 8,812  | 8,565  | 12,920 | 17,760 | 19,336  |
| Shares in issue (m)    | 129    | 157    | 164    | 172    | 172     |
| Adj. EPS (Rs)          | 68.3   | 54.6   | 78.8   | 103.3  | 112.5   |
| % growth               | 66.7   | (20.1) | 44.4   | 31.1   | 8.9     |
| PER (x)                | 8.4    | 10.6   | 7.3    | 5.5    | 5.0     |
| Price/Book (x)         | 3.0    | 2.4    | 1.9    | 1.4    | 1.1     |
| EV/EBITDA (x)          | 5.0    | 7.9    | 5.2    | 4.1    | 3.8     |
| RoE (%)                | 40.0   | 27.2   | 29.2   | 29.6   | 24.8    |
| RoCE (%)               | 30.1   | 16.2   | 22.3   | 24.0   | 21.2    |
| Source: SSKI Research  |        |        |        |        |         |

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"Important disclosures appear at the back of this report"

Mkt Cap: Rs97.2bn; US\$2.4bn

# **INVESTMENT ARGUMENT**

JSWS has displayed strong project execution skills over the last few years. The company is slated to register a remarkable 25% CAGR in volumes over FY07-09 led by its ability to execute large projects. Scalable capacities going on stream, cost reduction through economies of scale and forward integration into value added products provide strong levers for 22% CAGR in profits over FY07-09E. We expect a marked improvement in JSWS's financial profile even as it embarks on a huge Rs170bn of capital spending to increase its capacity 2.6x to 10m tpa over FY06-10. We initiate coverage on the stock with an Outperformer rating and a price target of Rs729 per share.

# □ JSWS – the metamorphosis

JSWS is a focused steel manufacturer with integration across the value chain. JSWS (erstwhile JISCO) was formed through a merger of Jindal Vijaynagar (JVSL) and Jindal Iron and Steel Company (upstream and downstream companies respectively). JSWS is currently the third largest steel producer in India with a capacity to produce 3.8m tonnes of hot metal. The company uses a unique combination of blast furnace and COREX technology, which enables it to keep costs under control. The current capacity of 3.8m tpa is divided into 1.6m tpa of steel through the COREX route and the remaining 2.2m tpa through blast furnace. The manufacturing units are located in the high-grade iron ore rich belt of South India. JSWS's finishing facilities are located strategically near Mumbai and Goa ports, which facilitate exports.

# □ Strong volume growth ahead

JSWS is poised for spectacular growth with capacities increasing 2.6x from 3.8m tpa currently to 10m tpa over FY06-10. Led by this, we expect a 25%yoy rise in JSWS's sales volumes over FY07-09. JSWS has lined up several expansion plans, both in terms of increasing its hot metal capacity and to forward integrate into value added products (refer table below for project-wise details).

#### Exhibit 1: JSWS - projects recently completed and under execution

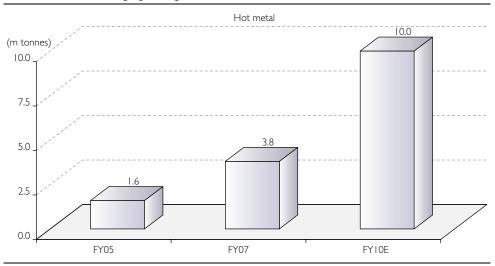
|   |                                     | (m tonnes) | (Rs m) | Expected commissioning |
|---|-------------------------------------|------------|--------|------------------------|
| Α | Completed in FY07                   |            |        |                        |
|   | Hot Strip Mill expansion            | 0.5        | 2,000  | Completed in May 2006  |
|   | Crude Steel capacity                | 1.3        | 12,800 | Completed in Nov 2006  |
|   | Expansion of Pelletisation plant    | 0.8        | 400    | Completed in Oct 2006  |
| в | Projects under implementation       |            |        |                        |
|   | Cold Rolling Mill                   | 1.0        | 10,000 | June 2007              |
|   | Hot Strip Mill expansion            | 0.7        | 800    | June 2007              |
|   | New Crude Steel Capacity            | 2.8        | 53,000 | April 2009             |
|   | Greenfield Hot Strip Mill expansion | 2.0        | 20,000 | Sept 2009              |
| С | Projects under conceptualization    | า          |        |                        |
|   | Integrated Steel Project            | 3.2        | 70,000 | FY10                   |

Source: Company

A focused and integrated steel manufacturer using a unique combination of COREX and blast furnace technologies

A 2.6x jump in capacity over FY06-10 to lead to 25% yoy increase in volumes over FY07-09

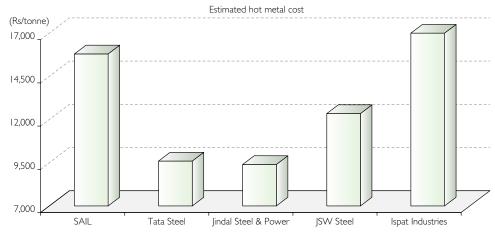
#### Exhibit 2: JSWS – Emerging steel giant



#### □ Cost competitiveness set to improve further

JSWS derives significant cost reduction from a combination of COREX and blast furnace technologies. The COREX technology uses low-grade non-coking coal (which is 40% cheaper than coking coal) and pellets (produced using iron ore fines). Further, waste gases generated from the COREX plant are used not only for its own requirement but to also subsidize the power cost of blast furnace. JSWS has longterm contracts with its group company to supply iron-ore (at cost plus 25%); satisfying 26% of its iron ore requirements. The remaining is sourced from National Mineral Development Corp (NMDC) with considerable freight cost savings arising from proximity to the iron ore mining belt of Bellary-Hospet region. We estimate JSWS's hot metal cost of production at Rs12,350 per tonne – one of the lowest in the country.





Source: Cris Infac, SSKI Research, Company

We estimate JSWS hot metal cost of production at Rs12,350/tonne

JSWS among the cheapest producers of

steel in India

# □ Marked shift towards value added products

We expect value added products to be 50% of sales by FY10

Financial restructuring

has led to lower interest

costs; expect ~1x debt-

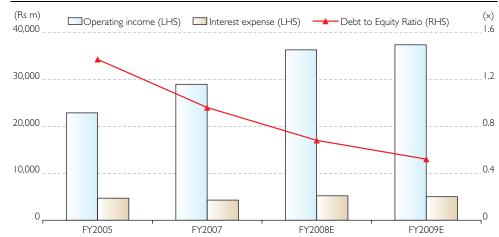
equity by FY08

JSWS is rapidly forward integrating into manufacturing of value added products. The company is eyeing multiple products including CR, galvanised, colour coated and value-added long products (alloy and electrograde) to improve its sales mix. With the expanded capacity going on stream, requisite approvals for niche products in place and commencement of exports, the shift is expected to accelerate going forward. We estimate value added products to contribute 50% of JSWS's sales by FY10 (38% currently).

# □ Improving financial profile

JSWS has several expansion plans in place, which would take its total capacity up by 2.6x over FY06-10 to 10m tpa. JSWS's strong cash flows have helped complete a debt restructuring, which enabled the company to bring down its debt to equity ratio, and interest costs. We expect JSWS's debt-equity ratio to remain below ~1x in FY08 (4.1x in FY04). Even as the company embarks upon a significant expansion over the next few years, we do not expect debt-equity ratio to increase beyond 1x.





Debt-equity likely to decline despite the massive expansion plans

Source: SSKI Research

# **Expect 22% CAGR in profits over FY07-09**

We estimate 22% CAGR in JSWS's net profit over FY07-09, led by improving utilization of the expanded capacity. Further, focus on value addition and cost savings through economies of scale would offer significant levers against any drop in steel prices. We have assumed flat steel realizations for FY08 and a 10% yoy drop for FY09. Also, we have assumed a 9.5% increase in iron ore prices sourced from NMDC for FY08 and a further 5% increase in FY09 in dollar terms. In domestic currency, iron ore prices for FY08 are expected to remain flat on account of a similar appreciation expected in the INR/ USD exchange rate.

Improving utilization of expanded capacity, value addition and economies of scale to drive profits

#### Exhibit 5: Assumptions on raw material prices

| (Rs per tonne) | Iron ore    | Iron ore | Coking | Non-coking | Coke  |
|----------------|-------------|----------|--------|------------|-------|
|                | (own mines) | (NMDC)   | coal   | coal       |       |
| FY06           | 297         | 1,020    | -      | 6,036      | -     |
| FY07           | 336         | 1,334    | 5,750  | 5,060      | 7,360 |
| FY08E          | 336         | 1,333    | 5,250  | 3,780      | 6,720 |
| FY09E          | 336         | 1,400    | 5,250  | 3,780      | 6,720 |

Source: SSKI Research

#### **Return ratios expected to remain strong**

Average specific investment cost for COREX capacity at ~Rs27,000/tonne, which is quite competitive JSWS has managed to bring down the specific investment cost per tonne with each phase of expansion. Compared with a specific investment cost of -Rs39,000 per tonne for its initial 1.6m tpa COREX capacity, the latest phase of 3.2m tpa expansion is likely to be executed at a specific investment cost of Rs21,875 per tonne. With this, the average cost would drop to -Rs27,000 per tonne – which we believe is quite competitive considering the level of integration that the company would enjoy.

#### Exhibit 6: Estimation of specific investment per tonne

|                                  | FY04   | FY06    | FY07    | FY09E   | FY10E   |
|----------------------------------|--------|---------|---------|---------|---------|
| Gross block (Rs m)               | 62,781 | 102,303 | 133,455 | 177,220 | 271,422 |
| Capacity (m tonnes)              | 1.6    | 2.5     | 3.8     | 6.8     | 10      |
| Gross block/Capacity (Rs /tonne) | 39,238 | 40,921  | 35,120  | 26,062  | 27,142  |
| Source: SSKI Research            |        |         |         |         |         |

Source: SSKI Research

Better project execution skills, higher operating leverage and a common supporting infrastructure contribute to the reduction in specific cost. In this backdrop, though return ratios are likely to fall from their highs, they would still remain attractive (24.8% RoE for FY09E).

#### Exhibit 7: Du point analysis

| (Rs m)                | 2006   | 2007    | 2008E   | 2009E   | 2010E   |
|-----------------------|--------|---------|---------|---------|---------|
| PAT                   | 8,565  | 12,920  | 17,760  | 19,336  | 22,035  |
| Sales                 | 61,801 | 85,944  | 98,110  | 107,670 | 114,462 |
| PAT/ Sales (%)        | 13.9   | 15.0    | 18.1    | 18.0    | 19.3    |
| Sales                 | 61,801 | 85,944  | 98,110  | 107,670 | 114,462 |
| Assets                | 79,156 | 104,087 | 126,934 | 141,830 | 191,971 |
| Sales/ Assets (%)     | 78.1   | 82.6    | 77.3    | 75.9    | 59.6    |
| Assets                | 79,156 | 104,087 | 126,934 | 141,830 | 191,971 |
| Equity                | 34,256 | 47,074  | 62,735  | 80,653  | 99,620  |
| Assets /Equity        | 231.1  | 221.1   | 202.3   | 175.9   | 192.7   |
| RoE* (%)              | 27.2   | 29.2    | 29.6    | 24.8    | 22.8    |
| Source: SSKI Desearch |        |         |         |         |         |

We expect RoE of 24.8% for FY09, which is still attractive

Source: SSKI Research

JSWS expected to report a strong 22% CAGR in profits over FY07-09 – the fastest in our metals universe; Outperformer

### Attractive valuations; Buy with a price target of Rs729 per share

JSWS is poised for strong growth led by remarkably high capacity addition, cost reduction and forward integration into value added products. The company is already the third largest steel producer in India with modern integrated operations, strong market positioning and improving financial profile. We expect JSWS to report a strong 22% CAGR in profits over FY07-09 – the fastest in our metals universe. We initiate coverage on the stock with an Outperformer rating and a price target of Rs729 per share.

|   |     |         | Base HRC price: US\$570/tonne |             |              |  |  |  |  |
|---|-----|---------|-------------------------------|-------------|--------------|--|--|--|--|
|   |     | 5% drop | Base case                     | 5% increase | 10% increase |  |  |  |  |
|   | 5.5 | 478     | 573                           | 668         | 765          |  |  |  |  |
|   | 6   | 521     | 625                           | 729         | 834          |  |  |  |  |
| × | 6.5 | 564     | 677                           | 789         | 904          |  |  |  |  |
| Н | 7   | 608     | 729                           | 850         | 973          |  |  |  |  |
|   | 7.5 | 651     | 781                           | 911         | 1,043        |  |  |  |  |
|   | 8   | 695     | 833                           | 971         | 1,112        |  |  |  |  |

#### Exhibit 8: JSWS – valuation sensitivity to steel prices

Source: SSKI Research; \*Our base case assumes an HRC price of US \$570/tonne

# **VALUATIONS AND VIEW**

We have looked at various valuation methodologies for valuing JSWS as valuing it on traditional PE and EV/EBITDA band trends is difficult due to its limited trading history. Our conservative replacement cost analysis and adjusted P/B methodology suggests a fair price of Rs719 per share and Rs693 per share respectively. On comparative earnings multiple basis, we believe JSWS deserves to trade at a premium to peers in view of its extremely high growth visibility. At 5.5x FY08E earnings, valuations offer scope for further upside. Going forward, the stock price would reflect execution of expansion projects and JSWS's emergence as a steel giant. We initiate coverage on the stock with a price target of Rs729 per share (7x FY08E earnings).

# □ Valuations yet to reflect growth visibility

We believe JSWS would be among the fastest growing companies in the steel industry on the back of its ambitious expansion plans. Going by its project execution track record, expansion plans appear to be achievable. Unlike other large greenfield projects, which are facing hiccups even before project launches with regard to land approvals and raw material linkages, JSWS's projects are on the fast track. JSWS deserves to trade at a premium to peers to reflect the strong growth visibility and scalability over the next few years.

#### Exhibit 9: Comparative capacity expansions over FY06-10E

|                         | Capacity (m tpa) | Capacity | CAGR (%) | PE (x) |
|-------------------------|------------------|----------|----------|--------|
|                         | as on FY07       | by FY10E | FY06-11E | FY08E  |
| JSW Steel               | 3.8              | 10.0     | 38.1     | 5.5    |
| Tata Steel (standalone) | 5.0              | 9.7      | 24.7     | 8.2    |
| SAIL                    | 13.0             | 20.0     | 15.4     | 8.7    |
| Jindal Steel & Power    | 1.3              | 3.3      | 37.5     | 10.7   |
| Source ·SSKI Decearch   |                  |          |          |        |

Source :SSKI Research

### □ Valuing the stock on replacement cost basis

Conservatively using replacement cost as the benchmark, JSWS trades at a 25% discount to its estimated replacement cost of Rs719 per share. The calculation assumes a replacement cost of US \$560 per tonne for blast furnace (in line with specific investment per tonne of recent expansions) and US \$620 per tonne for COREX assets. We have used the following methodology for arriving at the discounted replacement cost:

- As work on expansion to 6.8m tpa has already commissioned and there is reasonable certainty of the same getting executed, we have assumed replacement cost for 6.8m tpa of assets;
- We have reduced the total (existing and planned) debt required to fund these assets as of end-FY09, when the plant would commission;
- We have discounted the value by 12% per annum to arrive at the present replacement cost of assets.

Using this methodology, we arrive at a fair price of Rs719 per share for JSWS.

Given high growth visibility and scalability, JSWS deserves to trade at a premium to peers

We value JSWS at Rs719 per share based on replacement cost basis

| Particulars                           | Capacity | Unit     | Valuation       | Valuation     | Total   |
|---------------------------------------|----------|----------|-----------------|---------------|---------|
|                                       |          |          | Per unit (US\$) | per unit (Rs) | (Rs m)  |
| NPV of iron ore mining assets         | 30       | m tonnes | 3.4             | 139           | 4,182   |
| Corex capacity                        | 1.6      | m tonnes | 620             | 25,420        | 40,672  |
| BoF capacity                          | 5.2      | m tonnes | 560             | 22,960        | 119,392 |
| Value added products                  |          |          |                 |               |         |
| CR/ CRCA                              | 1.8      | m tonnes | 243             | 9,963         | 17,933  |
| Galvanising/ Colour coated facilities |          |          |                 |               | ~7,000  |
| Power plant                           | 230      | MW       | 1,720           | 42            | 9,649   |
| Investment in JSW Energy (Vijaynagar  | )        | Rs m     |                 |               | 1248    |
| Total Replacement Cost                |          | Rs m     |                 |               | 200,076 |
| Less: Expected debt as on FY09*       |          | Rs m     |                 |               | 50,902  |
| Add: Cash/ Cash Equivalent            |          | Rs m     |                 |               | 1,703   |
| Implied Market capitalisation         |          | Rs m     |                 |               | 150,877 |
| No. of Shares                         |          | m        |                 |               | 172     |
| Implied replacement cost              |          |          |                 |               |         |
| per shareas on FY09                   |          | Rs       |                 |               | 877     |
| Discounted value per share            |          | Rs       |                 |               | 719     |

#### Exhibit 10: JSWS - replacement cost analysis

Source: SSKI Research (Note: \* Replacement cost after expansion to 6.8mtpa, debt required for expansion to 6.8mtonnes)

### □ Adjusted P/B methodology

We believe JSWS's quality of earnings has improved considerably over the last few years with a sharp improvement in operating parameters and an even more marked improvement in product mix. As steel companies operate on significantly different business models, which can be a pure converter/ integrated player/ semi-integrated player, PE valuation largely tracks the cyclicality in commodity prices. While other valuation methodologies fail to reflect these differences, we believe justified P/ BV derivation from RoEs adequately captures the fair value.

Based on these parameters, we have valued JSWS on a P/BV basis on mid-cycle commodity prices. Our calculations based on mid-cycle product prices indicate a sustainable RoE of 16% for JSWS. Thus, the company should be valued at 1.3x its FY08E P/BV (assuming cost of equity at 12%). This translates into a fair target of Rs693 per share based on adjusted P/B methodology.

#### **Earnings multiple and sensitivity to steel prices**

JSWS currently trades at 5.5x FY08E earnings. Given the fact that JSWS has a limited trading history, it is difficult to value the company based on PE and EV/EBITDA bands. Notably, JSWS offers significant volume growth over the next few years, and hence is not a pure leverage story on steel prices. However, considering the scale and growth visibility, we believe JSWS deserves to trade at a premium to peers. The exhibit below provides a valuation sensitivity analysis to steel prices; our base case assumes HRC steel price realization of US\$570/tonne for FY08.

Based on adjusted P/BV methodology, fair price of JSWS comes to Rs693 per share

Considering the scale and growth visibility, JSWS deserves to trade at a premium to peers

# Exhibit 11: JSWS – valuation sensitivity to steel prices

|   |     |         | Base HRC price: US\$570/tonne |             |              |  |  |  |  |
|---|-----|---------|-------------------------------|-------------|--------------|--|--|--|--|
|   |     | 5% drop | Base case                     | 5% increase | 10% increase |  |  |  |  |
|   | 5.5 | 478     | 573                           | 668         | 765          |  |  |  |  |
|   | 6   | 521     | 625                           | 729         | 834          |  |  |  |  |
| × | 6.5 | 564     | 677                           | 789         | 904          |  |  |  |  |
| Ы | 7   | 608     | 729                           | 850         | 973          |  |  |  |  |
|   | 7.5 | 651     | 781                           | 911         | 1,043        |  |  |  |  |
|   | 8   | 695     | 833                           | 971         | 1,112        |  |  |  |  |

Source: SSKI Research

# Exhibit 12: Comparative global valuations

|                              |      | PE (x) |       |      | PB (x) |       |      | EV/EBITDA (x) |       |
|------------------------------|------|--------|-------|------|--------|-------|------|---------------|-------|
|                              | FY07 | FY08E  | FY09E | FY07 | FY08E  | FY09E | FY07 | FY08E         | FY09E |
| BLUESCOPE STEEL              | 12.1 | 12.8   | 15.4  | 2.4  | 2.2    | 2.1   | 7.3  | 7.5           | 8.2   |
| POSCO                        | 10.9 | 9.4    | 8.4   | 1.7  | 1.3    | 1.2   | 5.9  | 5.4           | 4.6   |
| CHINA STEEL CORP             | -    | -      | -     | 2.1  | 2.0    | 1.9   | 9.6  | 7.2           | 7.6   |
| BAOSHAN IRON & STEEL CO-A    | 18.4 | 14.8   | 12.9  | 2.8  | 2.5    | 2.3   | 8.0  | 6.7           | 6.2   |
| ARCELOR MITTAL               | 10.4 | 9.2    | 8.0   | 2.1  | 1.6    | 1.4   | 6.9  | 6.2           | 5.8   |
| NIPPON STEEL CORP            | 16.3 | 15.3   | 15.3  | 3.0  | 2.6    | 2.3   | 9.4  | 8.8           | 8.7   |
| JFE HOLDINGS INC             | 14.1 | 13.5   | 13.4  | 2.9  | 2.5    | 2.2   | 8.2  | 7.9           | 7.7   |
| THYSSENKRUPP AG              | 14.2 | 10.5   | 11.2  | 2.4  | 2.1    | 1.8   | 5.0  | 4.1           | 4.4   |
| NUCOR CORP                   | 12.2 | 11.9   | 12.1  | 4.1  | 3.4    | 2.9   | 6.4  | 6.3           | 6.6   |
| UNITED STATES STEEL CORP     | 10.0 | 11.1   | 11.9  | 2.9  | 2.4    | 2.1   | 5.5  | 6.3           | 6.4   |
| MAANSHAN IRON & STEEL-A      | 26.1 | 19.4   | 15.3  | 3.3  | 3.0    | 2.6   | 13.6 | 10.5          | 7.5   |
| ANGANG STEEL CO LTD - A      | 17.9 | 14.8   | 12.6  | 4.3  | 3.8    | 3.3   | 11.4 | 10.1          | 7.1   |
| CIA SIDERURGICA TUBARAO-PREF | 0.1  | 0.1    | -     | 0.0  | 0.0    | -     | -    | -             | -     |
| GERDAU SA-PREF               | 10.8 | 10.1   | 9.2   | 2.8  | 2.7    | 2.2   | 7.6  | 6.7           | 6.1   |
| TENARIS SA                   | 10.4 | 10.2   | 6.8   | 4.2  | 3.0    | 2.4   | 9.5  | 7.5           | 7.0   |
| JSW STEEL                    | 7.3  | 5.5    | 5.0   | 1.9  | 1.4    | 1.1   | 5.2  | 4.1           | 3.8   |
| STEEL AUTHORITY OF INDIA     | 10.2 | 8.9    | 7.3   | 3.6  | 2.7    | 2.1   | 6.2  | 5.5           | 4.6   |
| JINDAL STEEL & POWER         | 14.1 | 10.7   | 9.4   | 3.8  | 2.7    | 2.2   | 9.3  | 6.9           | 5.6   |
| TATA STEEL*                  | 8.6  | 8.2    | 7.8   | 2.5  | 2.0    | 1.7   | 5.3  | 4.9           | 4.3   |

Source: Bloomberg, SSKI Research (\*--based on standalone estimates)

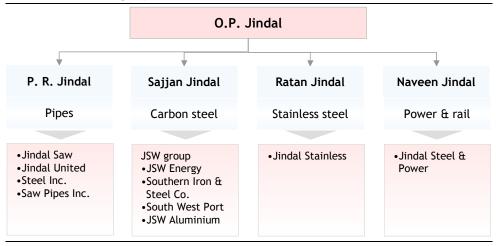
# **JSWS: BUSINESS OVERVIEW**

JSWS is India's third largest steel producer. The company is set to improve its position further with capacities increasing by 2.6x over FY06-10 to 10m tpa. JSWS is the only manufacturer in India using a combination of COREX as well as blast furnace technology for steel production. Further, JSWS's business structure and strategic locations offer strong cost advantages. JSWS is set to derive significant benefits from economies of scale, its changing product mix, continuous focus on vertical integration, and synergy benefits leveraged from associate companies and ventures.

# □ JSWS – group profile

JSWS is a member of the US \$4bn O P Jindal group with business interests in mining, carbon steel, power, industrial gases and ports. Led by Mr Sajjan Jindal, the US\$2bn JSW Group produces a wide range of steel products from pellets to color coated steel. JSWS has an integrated steel plant with units located across Karnataka and Maharashtra.

#### Exhibit 13: O.P. Jindal group structure



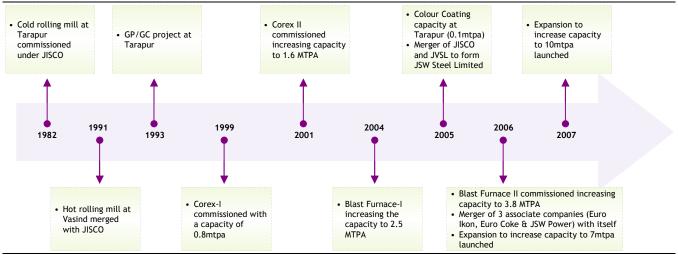
### Company background

JSWS has emerged as one of the leading private sector steel producers of India. The company was constituted by the merger of two companies, Jindal Iron and Steel Company (JISCO; downstream) and Jindal Vijayanagar Steel (JVSL; upstream). JSWS took a lead in adopting COREX (the latest technology), developed by Voest Alpine of Austria, and is the only company in India – and among the few globally – that produce steel using a mix of COREX and blast furnace. The then JVSL (now merged into JSWS) was the first greenfield project to have COREX as a mainstream facility (others elsewhere in the world, which had it as part of brownfield expansion, included ISCOR of South Africa and POSCO of South Korea).

JSWS currently has a steelmaking capacity of 3.8m tonnes, which will be further expanded to 6.8m tonnes by FY08-09 and 10m tonnes by FY10. Once the full capacity goes on stream, JSWS would arguably emerge as the second largest steel producer in the domestic market.

The O P Jindal group has business interests across mining, carbon steel, power, industrial gases and ports

JSWS the only company in India and among the few globally producing steel using a mix of COREX and blast furnace



#### Exhibit 14: JSWS - the metamorphosis

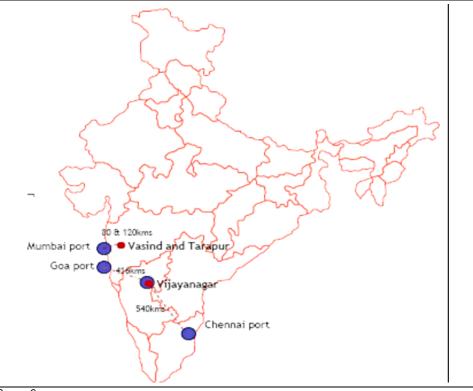
Source: Company, SSKI Research

Production facilities with easy access to iron ore mines and Goa port for coal – key strategic advantages

### **D** Business structure offers strategic cost competitiveness

JSWS has production facilities spread over three locations in Vijaynagar (Karnataka), Vasind and Tarapur (Maharashtra). The strategically located integrated HR mill at Vijaynagar has easy access to iron ore mines in the Bellary-Hospet area (Karnataka). JSWS, through its group company, has access to captive mines having iron ore reserves of 30m tonnes. Going by the current mining rate of 1.6m tpa, the reserves are estimated to last 6-7 years. The remaining iron ore requirement is sourced from NMDC on a long-term contract basis. Coal requirement is largely imported via a port in Goa owned by a group company.

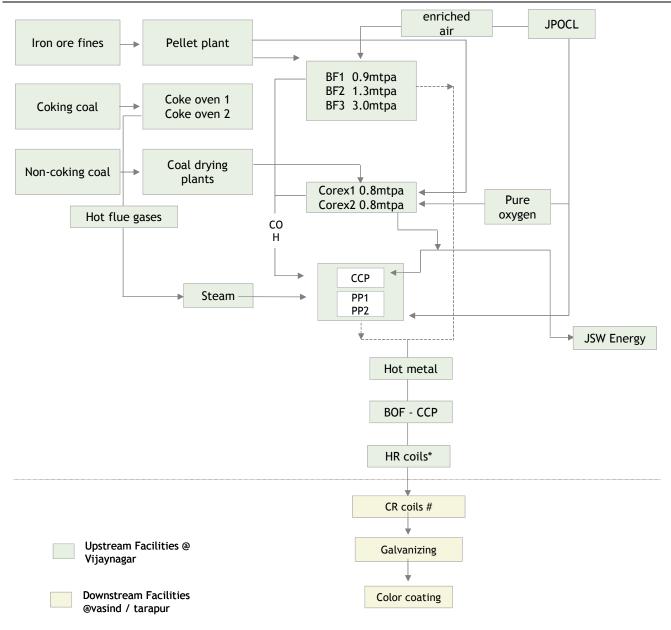




Source: Company

At Vijaynagar (Karnataka) plant, hot metal is produced through a mix of COREX and blast furnace technologies. Hot metal is then cast into slabs and rolled into HR coils at the same plant. HR coils are transported to Vasind and Tarapur (downstream facilities) where the coils are further rolled into cold rolled and galvanised products. These products are either exported or sold in the domestic market, mainly in western and southern regions with specific selling to the automotive sector in Chennai.

#### Exhibit 16: JSWS: Production flow chart (post expansion to 6.8mtpa)



\*Hot metal processed through Continuous Caster Plant, Reheating furnace & Hot Strip Mill, # Process improves surface finish & imparts mechanical strength

# Big getting bigger

Capacity additions targeted at mainly hot metal and value added products We expect 25% CAGR in JSWS's sales volumes over FY07-09 as the company grows rapidly on the back of a 2.6x increase in capacities over FY06-10 to 10m tpa. JSWS has lined up several expansion plans, both in terms of increasing its hot metal capacity and to forward integrate into value added products (refer table below for project-wise details, completion date and current status).

#### Exhibit 17: JSWS – projects recently completed and under execution

|   |                                     | (m tonnes) | (Rs m) | Expected commissioning |
|---|-------------------------------------|------------|--------|------------------------|
| Α | Completed in FY07                   |            |        |                        |
|   | Hot Strip Mill expansion            | 0.5        | 2,000  | Completed in May'06    |
|   | Crude steel capacity                | 1.3        | 12,800 | Completed in Nov'06    |
|   | Expansion of Pelletisation plant    | 0.8        | 400    | Completed in Oct'06    |
| в | Projects under implementation       |            |        |                        |
|   | Cold Rolling Mill                   | 1.0        | 10,000 | June'2007              |
|   | Hot Strip Mill expansion            | 0.7        | 800    | June'2007              |
|   | New Crude steel capacity            | 2.8        | 53,000 | April'2009             |
|   | Greenfield Hot Strip Mill expansion | 2.0        | 20,000 | Sept'2009              |
| С | Projects under conceptualization    | า          |        |                        |
|   | Hot Strip Mill expansion            | 3.2        | 70,000 | FY2010                 |

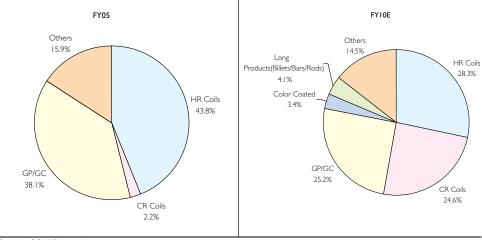
Source:

JSWS has also recently acquired Argent Independent Steel (UK), a steel processing center strategically located and involved in slitting, blanking, recoiling processes of steel products, for a consideration of Rs310m. We expect this acquisition would help JSWS increase its market reach while accessing Argent's research capabilities for the Indian operations.

# □ A changing product mix

We expect a significant shift in JSWS's product mix with increase in production capacities for downstream products. We expect the incremental operating margins and augmented capacities to add substantially to the bottomline. This would also insulate JSWS from any softness in global steel prices.

#### Exhibit 18: JSWS – sales mix shifting towards value added products



Source: SSKI Research

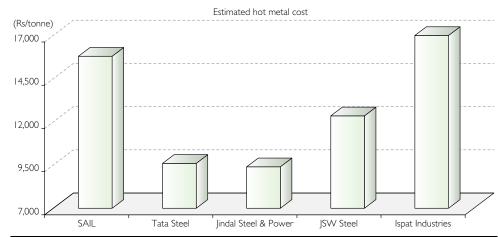
The capacity addition, while shoring up the bottomline, would also insulate JSWS from a decline in steel prices

### □ Cost competitiveness expected to improve

Partial integration hedges JSWS from spikes in raw material prices JSWS has the advantage of sourcing part of its iron ore requirements from captive mines. The current steel making capacity of 3.8m tpa requires ~6m tonnes of iron ore, of which 26% is sourced through own mines while the remaining is outsourced from NMDC through long-term contracts. Though JSWS imports coking coal, it owns coke-oven batteries that convert coking coal into metallurgical coke. Thus, JSWS saves on the cost differential between coking coal and metallurgical coke, which is sometimes substantial. JSWS can meet ~90% of its metallurgical coke requirement from the coke oven batteries.

The partial integration has helped JSWS mitigate the impact of the sharp price rise seen in some of the key raw materials. The company has carried out various cost cutting measures by reducing its energy consumption and consistently improving productivity. We estimate JSWS's hot metal cost of production at Rs12,350 per tonne – one of the lowest in the country.





Source: Cris Infac, SSKI Research, Company

JSWS has signed a MoU in Africa to achieve self sufficiency in coking coal. Further, the company has also been allotted Rohne Coal Block in Jharkhand with geological reserves of 410m tonnes and 250m tonnes of mineable reserves of medium and high grade coking coal, where it has a 69% stake. The mines in Jharkhand are expected to be commissioned in FY09. These initiatives, coupled with benefits of scale, are expected to further reduce cost of production over time.

At Rs12,350 per tonne, JSWS's hot metal cost of production is among the lowest in India

Sufficient access to coal and iron ore as also benefits of scale to help lower cost of production JSWS has 26% of stake in JSW Energy (Vijaynagar) Ltd

JPOCL sells 96% of its rated capacity (5,000tpd) of gases like oxygen and argon to JSWS

> VMPL meets 26% of JSWS's iron ore requirement

JSWS recently acquired a service centre in UK for£3.75m

# **ASSOCIATED COMPANIES**

# □ JSW Energy & JSW Energy (Vijaynagar) Ltd

JSW Energy (JSWEL) is a group company of the Jindal South West (JSW) group headed by Mr Sajjan Jindal. JSWEL has two units of 130 MW each and both units generate power using COREX gas and coal. The company supplies power to JSWS (~20% of generation) and the remaining power is sold to Power Trading Corporation. Recently, JSWS sold its 50% stake in the company for Rs5,130m to promoter group companies. Subsequent to that, JSWS has subscribed to 26% equity in JSW Energy (Vijaynagar) Ltd—a subsidiary of JSW Energy Ltd for a consideration of Rs800m. JSW Energy (Vijaynagar) is implementing a 600MW power plant.

# Jindal Praxair Oxygen Company Pvt. Ltd

Jindal Praxair Oxygen Pvt. Ltd (JPOCL) is a 74:26 joint venture between Praxair and JSWS. The JV has an ISO 140001 plant located in Bellary, around 20km away from JSWS. The company sells 96% of its rated capacity of 5,000 tpd to JSWS in the form of gases like oxygen and argon. JPOCL sells the surplus to the merchant market in South and West India.

# Vjaynagar Minerals Pvt. Ltd

Vijayanagar Minerals Pvt. Ltd (VMPL) is a joint venture between JSWS and Mysore Minerals (MML) formed to mine the iron ore required for JSWS's upstream plant. Given that iron ore is one of the key inputs for steel production, VMPL assumes high significance for JSWS as it meets 26% of its iron ore requirements (the remaining sourced from NMDC). Also, the captive iron ore mines insulate, to some extent, JSWS's bottomline from the volatility of international iron ore prices.

# □ Argent Independent Steel, UK

JSWS recently acquired Argent Independent Steel, UK at an enterprise value of  $\pm 3.75$ m. It is a steel processing unit involved in slitting, blanking, recoiling processes of steel products. This acquisition expands the marketing and distribution network for JSWS. It also enhances JSWS's value added services portfolio while bringing the expertise of the UK facility to the Indian operations.

# **FINANCIAL ANALYSIS**

We expect JSWS to register a sharp 22% CAGR in PAT over FY07-09 led by strong volume growth on the back of capacity expansion and an improving mix towards value added products. Our numbers assume a stable steel price scenario for FY08 and a 10% yoy decline in steel prices for FY09. Though return ratios are likely to come off due to the capacity expansion lined up, cost efficiencies, falling capital cost per tonne and high operating leverage would still keep them at attractive levels (24.8% RoE for FY09E). JSWS has lined up a total capital expenditure of Rs170bn over FY07-10, which is likely to be funded through a combination of debt (55%) and internal accruals/ FCCB raising (45%).

# **Expect a strong 12% CAGR in revenues over FY07-09**

We expect JSWS's revenues to register a CAGR of 12% over FY07-10, driven by a distinct shift towards value added products, and ramp-up in capacity utilization of projects already underway (capacity expected to be 6.8m tpa by FY09). Even in FY10, revenue visibility is likely to be strong with ramp-up in utilization levels and commissioning of a new 3.2m tpa steel expansion. We expect value added products to contribute ~70% of revenues by FY10.

| FY05   | FY06   | FY07  | FY08E  | FY09E   |
|--------|--|---|--|---|
| 66,794 | 61,801   | 85,165  | 98,110   | 107,670   |
| 40,309 | 40,489   | 51,077  | 55,818   | 63,808  |
| 60.3   | 65.5   | 60  | 56.9   | 59.3  |
| 1,072  | 1,270  | 1,588   | 1,747  | 1,834   |
| 1.6    | 2.1  | 1.9   | 1.8  | 1.7   |
| 2,549  | 2,581  | 3,556   | 4,268  | 4,683   |
| 3.8    | 4.2  | 4.2   | 4.3  | 4.3   |
| 43,930 | 44,340   | 56,221  | 61,832   | 70,326  |
| 22,864 | 17,461   | 28,944  | 36,278   | 37,344  |
| 34.2   | 28.3   | 34  | 37   | 34.7  |
| 190    | 3,830  | 138   | 152  | 176   |
| 4,699  | 3,603  | 4,286   | 5,199  | 5,003   |
| 3,518  | 4,058  | 5,022   | 5,835  | 7,273   |
| 14,837 | 13,629   | 19,775  | 25,396   | 25,245  |
| 6,025  | 4,446  | 6,526   | 7,619  | 6,059   |
| 8,812  | 9,183  | 13,249  | 17,777   | 19,186  |
|        | 66,794<br>40,309<br>60.3<br>1,072<br>1.6<br>2,549<br>3.8<br>43,930<br>22,864<br>34.2<br>190<br>4,699<br>3,518<br>14,837<br>6,025 | 66,794 61,801   40,309 40,489   60.3 65.5   1,072 1,270   1.6 2.1   2,549 2,581   3.8 4.2   43,930 44,340   22,864 17,461   34.2 28.3   190 3,830   4,699 3,603   3,518 4,058   14,837 13,629   6,025 4,446 | 66,79461,80185,16540,30940,48951,07760.365.5601,0721,2701,5881.62.11.92,5492,5813,5563.84.24.243,93044,34056,22122,86417,46128,94434.228.3341903,8301384,6993,6034,2863,5184,0585,02214,83713,62919,7756,0254,4466,526 | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ |

#### Exhibit 20: Key financials

Source: SSKI Research

# □ Profitability to remain intact despite falling steel prices

We have assumed a flat steel price realisation scenario for FY08 and a 10% yoy fall in steel realizations for FY09. We expect cost reduction through economies of scale and forward integration into value added products to provide strong levers for 22% CAGR in JSWS's profits over FY07-09E despite falling steel prices. JSWS is among the fastest growing in our universe of stocks.

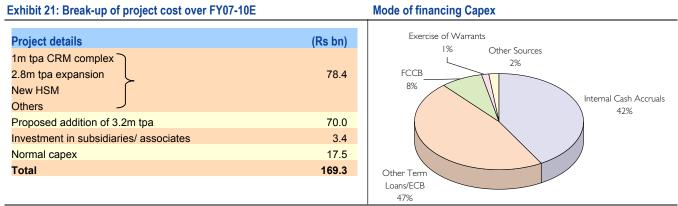
Higher capacity utilization of expanded capacity and value addition to drive revenue growth

Cost reduction through economies of scale and forward integration – strong levers for profit growth

### **Capex funding through a mix of debt and equity**

The total capital expenditure of Rs170bn planned over FY07-09...

JSWS has lined up a total capital expenditure of Rs170bn (US \$4bn) over FY07-10 to fund its expansion plans. This is likely to be funded through a mix of (a) debt (Rs80bn); (b) recently concluded private placement to promoters (Rs2bn) in the form of preferential allotment; (c) recently announced plans for a FCCB issuance (Rs13.65bn) (d) internal accruals (Rs71bn); and (e) other sources (Rs3.5bn).

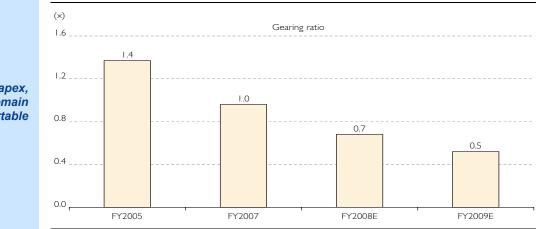


Source: Company, SSKI Research

#### **Gearing to remain comfortable**

We expect JSWS's debt-equity ratio to fall below ~1x in FY08 (4.1x in FY04). Since the conversion price for the FCCB issue is at a significant ~50% premium over the current market price and much above the fair value of the stock over the next two years, we do not expect the bonds to get converted into equity and hence, for now we have assumed the FCCB issuance as debt for our calculation. Even as the company embarks upon a significant expansion over the next few years, we do not debt-equity ratio to remain below 1x. This implies that interest coverage ratio too would remain comfortable over the years.





Despite increasing capex, gearing to remain comfortable Better project execution skills, operating leverage and common supporting infrastructure leading to lower specific cost

#### **Return ratios expected to remain strong**

JSWS has managed to bring down the specific investment cost per tonne with each phase of expansion. Compared with a specific investment per tonne cost of ~Rs39,000/tonne for its initial 1.6m tpa COREX capacity, the latest phase of 3.2m tpa expansion is likely to be executed at a specific investment cost of Rs21,875/tonne. With this, the average cost would drop to ~Rs27,000 per tonne – which we believe is quite competitive considering the level of integration that the company would enjoy.

#### Exhibit 23: Estimation of specific investment per tonne

|                                  | FY04   | FY06    | FY07    | FY09E   | FY10E   |
|----------------------------------|--------|---------|---------|---------|---------|
| Gross block (m)                  | 62,781 | 102,303 | 133,455 | 177,220 | 271,422 |
| Capacity (m tonnes)              | 1.6    | 2.5     | 3.8     | 6.8     | 10      |
| Gross block/Capacity (Rs /tonne) | 39,238 | 40,921  | 35,120  | 26,062  | 27,142  |
| Source: SSKI Research            |        |         |         |         |         |

Source: SSKI Research

Better project execution skills, higher operating leverage and a common supporting infrastructure contribute to the reduction in specific cost. Though return ratios are likely to fall from their highs in FY06 due to dilution they would still remain attractive (24.8% RoE for FY09E).

#### Exhibit 24: Du Pont analysis

| (Rs m)            | 2006   | 2007    | 2008E   | 2009E   | 2010E   |
|-------------------|--------|---------|---------|---------|---------|
| PAT               | 8,565  | 12,920  | 17,760  | 19,336  | 22,035  |
| Sales             | 61,801 | 85,944  | 98,110  | 107,670 | 114,462 |
| PAT/ Sales (%)    | 13.9   | 15.0    | 18.1    | 18.0    | 19.3    |
| Sales             | 61,801 | 85,944  | 98,110  | 107,670 | 114,462 |
| Assets            | 79,156 | 104,087 | 126,934 | 141,830 | 191,971 |
| Sales/ Assets (%) | 78.1   | 82.6    | 77.3    | 75.9    | 59.6    |
| Assets            | 79,156 | 104,087 | 126,934 | 141,830 | 191,971 |
| Equity            | 34,256 | 47,074  | 62,735  | 80,653  | 99,620  |
| Assets/ Equity    | 231.1  | 221.1   | 202.3   | 175.9   | 192.7   |
| RoE* (%)          | 27.2   | 29.2    | 29.6    | 24.8    | 22.8    |
| 0                 |        |         |         |         |         |

Source: SSKI Research

| Income | statement |
|--------|-----------|
|--------|-----------|

| Year to Mar 31 (Rs m) | 2005    | 2006    | 2007    | 2008E   | 2009E   |
|-----------------------|---------|---------|---------|---------|---------|
| Net sales             | 66,794  | 61,801  | 85,944  | 98,110  | 107,670 |
| % growth              | 106.1   | (7.5)   | 39.1    | 14.2    | 9.7     |
| Operating expenses    | 43,930  | 44,958  | 57,776  | 61,832  | 70,326  |
| EBITDA                | 22,864  | 16,843  | 28,168  | 36,278  | 37,344  |
| % growth              | 143.0   | (26.3)  | 67.2    | 28.8    | 2.9     |
| Other income          | 190     | 3,830   | (39)    | 152     | 176     |
| Net interest          | (4,699) | (3,603) | (3,995) | (5,223) | (4,805) |
| Depreciation          | 3,518   | 4,058   | 4,982   | 5,835   | 7,273   |
| Pre-tax profit        | 14,837  | 13,011  | 19,152  | 25,372  | 25,442  |
| Deferred Tax          | 5,280   | 3,651   | 6,232   | 2,030   | 0       |
| Current Tax           | 745     | 795     | 0       | 5,582   | 6,106   |
| Profit after tax      | 8,812   | 8,565   | 12,920  | 17,760  | 19,336  |
| % growth              | 282.6   | (2.4)   | 50.8    | 37.5    | 8.9     |

#### **Balance sheet**

| Year to Mar 31 (Rs m)         | 2005   | 2006    | 2007    | 2008E   | 2009E   |
|-------------------------------|--------|---------|---------|---------|---------|
| Paid-up capital               | 1,290  | 1,569   | 1,639   | 1,719   |         |
| Preference share capital      | 2,790  | 2,790   | 2,790   | 2,790   | 2,791   |
| Reserves & surplus            | 23,910 | 36,162  | 49,197  | 67,334  | 84,952  |
| Total shareholders' equity    | 25,201 | 37,731  | 50,836  | 69,053  | 86,671  |
| Total current liabilities     | 16,083 | 23,201  | 20,285  | 27,256  | 30,802  |
| Total Debt                    | 41,154 | 43,751  | 54,783  | 49,861  | 46,710  |
| Deferred tax liabilities      | 3,055  | 7,420   | 13,652  | 15,682  | 15,682  |
| Other non-current liabilities | 0      | 0       | 0       | 0       | 0       |
| Total liabilities             | 60,292 | 74,372  | 88,720  | 92,799  | 93,194  |
| Total equity & liabilities    | 85,493 | 112,103 | 139,557 | 161,852 | 179,865 |
| Net fixed assets              | 64,257 | 83,799  | 109,929 | 126,365 | 140,585 |
| Investments                   | 2,296  | 851     | 2,099   | 2,099   | 2,099   |
| Total current assets          | 18,940 | 27,454  | 27,529  | 33,389  | 37,180  |
| Deferred tax assets           | 0      | 0       | 0       | 0       | 0       |
| Other non-current assets      | 0      | 0       | 0       | 0       | 0       |
| Working capital               | 2,857  | 4,253   | 7,244   | 6,133   | 6,379   |
| Total assets                  | 85,493 | 112,104 | 139,557 | 161,852 | 179,865 |

### **Cash flow statement**

| Year to March 31 (Rs m  | ) 2005   | 2006     | 2007     | 2008E    | 2009E    |
|-------------------------|----------|----------|----------|----------|----------|
| Pre-tax profit          | 14,837   | 13,011   | 19,152   | 25,372   | 25,442   |
| Depreciation            | 3,518    | 4,058    | 4,982    | 5,835    | 7,273    |
| chg in Working capital  | (2,394)  | (2,328)  | (2,230)  | 1,355    | (55)     |
| Total tax paid          | (745)    | (795)    | -        | (5,582)  | (6,106)  |
| Ext ord. Items          | -        | -        | -        | -        | -        |
| Operating cash Inflow   | 15,216   | 13,947   | 21,904   | 26,980   | 26,554   |
| Capital expenditure     | (15,916) | (23,607) | (31,152) | (22,271) | (21,493) |
| Free cash flow (a+b)    | (699)    | (9,661)  | (9,247)  | 4,709    | 5,061    |
| Chg in investments      | -        | 1,445    | (1,248)  | -        | -        |
| Debt raised/(repaid)    | 1,281    | 2,596    | 11,032   | (4,922)  | (3,152)  |
| Capital raised/(repaid) | 140      | 1,770    | 1,904    | 2,176    | 1        |
| Dividend (incl. tax)    | (184)    | (344)    | (1,750)  | (1,719)  | (1,719)  |
| Misc                    | (94)     | 3,957    | 39       | -        | -        |
| Net chg in cash         | 443      | (237)    | 730      | 243      | 191      |

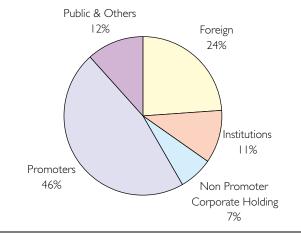
# Key ratios

| Year to March 31  | 2005 | 2006 | 2007 | 2008E | 2009E |
|-------------------|------|------|------|-------|-------|
| EBITDA margin (%) | 34.2 | 27.3 | 32.8 | 37.0  | 34.7  |
| EBIT margin (%)   | 29.0 | 20.7 | 27.0 | 31.0  | 27.9  |
| PAT margin (%)    | 13.2 | 13.9 | 15.0 | 18.1  | 18.0  |
| RoE (%)           | 40.0 | 27.2 | 29.2 | 29.6  | 24.8  |
| RoCE (%)          | 30.1 | 16.2 | 22.3 | 24.0  | 21.2  |
| Gearing (x)       | 1.6  | 1.1  | 1.0  | 0.7   | 0.5   |

#### Valuations

| Year to March 31  | 2005 | 2006 | 2007 | 2008E | 2009E |
|-------------------|------|------|------|-------|-------|
| Reported EPS (Rs) | 68.0 | 54.6 | 78.8 | 103.3 | 112.5 |
| Adj. EPS (Rs)     | 68.3 | 54.6 | 78.8 | 103.3 | 112.5 |
| PER (x)           | 8.4  | 10.6 | 7.3  | 5.5   | 5.0   |
| Price/Book (x)    | 3.0  | 2.4  | 1.9  | 1.4   | 1.1   |
| EV/Net sales (x)  | 1.7  | 2.2  | 1.7  | 1.5   | 1.3   |
| EV/EBITDA (x)     | 5.0  | 7.9  | 5.2  | 4.1   | 3.8   |
| EV/CE (x)         | 1.6  | 1.5  | 1.2  | 1.1   | 1.0   |

# Shareholding pattern



As of March 2007

| Analyst              | Sector/Industry/Coverage                 | E-mail                      | Tel. +91-22-6638 3300 |
|----------------------|--|-----------------------------|-----------------------|
| Pathik Gandotra      | Head of Research; Banking, Strategy      | pathik@sski.co.in           | 91-22-6638 3304       |
| Shirish Rane         | Cement, Construction, Power, Real Estate | shirish@sski.co.in          | 91-22-6638 3313       |
| Nikhil Vora          | FMCG, Media, Retailing, Mid Caps         | nikhilvora@sski.co.in       | 91-22-6638 3308       |
| Ramnath S            | Automobiles, Auto ancillaries            | ramnaths@sski.co.in         | 91-22-6638 3380       |
| Nitin Agarwal        | Pharmaceuticals                          | nitinagarwal@sski.co.in     | 91-22-6638 3395       |
| Ganesh Duvvuri       | IT Services, Telecom                     | ganesh@sski.co.in           | 91-22-6638 3358       |
| Varatharajan S       | Oil & Gas, Engineering                   | varatharajan@sski.co.in     | 91-22-6638 3240       |
| Chirag Shah          | Textiles, Metals, Real Estate            | chiragshah@sski.co.in       | 91-22-6638 3306       |
| Bhoomika Nair        | Construction, Power, Logistics           | bhoomika@sski.co.in         | 91-22-6638 3337       |
| Avishek Datta        | Oil & Gas, Engineering                   | avishek@sski.co.in          | 91-22-6638 3217       |
| Bhushan Gajaria      | FMCG, Retailing, Media                   | bhushangajaria@sski.co.in   | 91-22-6638 3367       |
| Shreyash Devalkar    | IT Services, Telecom                     | shreyashdevalkar@sski.co.in | 91-22-6638 3311       |
| Nilesh Parikh, CFA   | Banking                                  | nilesh@sski.co.in           | 91-22-6638 3325       |
| Ashish Shah          | Automobiles, Auto ancillaries            | ashishshah@sski.co.in       | 91-22-6638 3371       |
| Salil Desai          | Cement, Infrastructure                   | salil@sski.co.in            | 91-22-6638 3373       |
| Rahul Narayan        | FMCG, Retailing, Media                   | rahulnarayan@sski.co.in     | 91-22-6638 3238       |
| Suchit Sehgal        | Mid Caps                                 | suchitsehgal@sski.co.in     | 91-22-6638 3307       |
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