

## Power ramp-up a key catalyst News flow should improve – valuations at deep discount, reaffirm Buy

October 7, 2011

<b>Rating</b> Remains	<b>Buy</b>
<b>Target price</b> Reduced from 196	INR 169
<b>Closing price</b> October 5, 2011	INR 104
<b>Potential upside</b>	+62.5%

### Action: Overly pessimistic valuation; attractive opportunity

Sterlite Industries has corrected by 40% over the past 12 months (Sensex: -26%), reflecting continuous negative news flow and concerns over a deteriorating macro environment. We believe the current stock price is building in a USD1,600/t zinc price (current: USD1,860/t), assigning no value to the power and aluminium business, and ignoring loans to group companies. Although its 64.9% stake in Hindustan Zinc (HZ) contributes 50-55% of earnings, Sterlite has underperformed HZ by 28% over the past 12 months.

### Catalysts: Improving power business and news flow

Improving utilization of power plants should be a key catalyst along with resilient earnings, we believe. Any news flow on a stake sale by the government in HZ and Balco should also be positive.

### Valuation: Target price cut to INR169; reiterate Buy

We value Sterlite Industries on a sum-of-the-parts basis at INR169/share. We have cut our target price to incorporate expected lower zinc prices and higher coal costs. The stock is trading at 5.6x FY13F EPS of INR18.7 and 3.4x FY13F EV/EBITDA. The stock is trading at a FY12F P/B of 0.8x, despite an ROE close to 14% even on our conservative estimates. We believe these are attractive valuations and reaffirm our Buy rating.

Sterlite Energy (SEL) has shown PLF improving to 60% over the past two months from near 30% in March 2011. Although coal costs have risen, we believe SEL has performed much better than expected. With a third unit of 600MW under commissioning, we expect SEL to see better performance.

### Anchor themes

We expect news flow to improve with most of the negatives already priced in. The stock's underperformance vs HZ, which we consider the largest value driver, shows the extent of negativity built into the stock.

### Nomura vs consensus

Consensus estimates are in line with our FY12F estimates but 20-25% higher than our FY13F numbers. The consensus target price is nearly 10% greater than ours.

### Research analysts

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31 Mar	FY11	FY12F		FY13F		FY14F	
Currency (INR)	Actual	Old	New	Old	New	Old	New
<b>Revenue (mn)</b>	302,481	399,976	366,959	463,090	407,239	459,531	
<b>Reported net profit (mn)</b>	50,425	62,605	65,184	84,644	62,780	66,303	
<b>Normalised net profit (mn)</b>	50,993	62,605	65,184	84,644	62,780	66,303	
<b>Normalised EPS</b>	15.17	18.62	19.39	25.18	18.68	19.72	
<b>Norm. EPS growth (%)</b>	20.2	76.8	27.8	35.2	-3.7	5.6	
<b>Norm. P/E (x)</b>	6.9	N/A	5.4	N/A	5.6	N/A	5.3
<b>EV/EBITDA (x)</b>	4.9	3.6	4.0	2.7	3.4	2.6	
<b>Price/book (x)</b>	0.9	N/A	0.8	N/A	0.7	N/A	0.6
<b>Dividend yield (%)</b>	1.2	N/A	1.1	N/A	1.1	N/A	1.1
<b>ROE (%)</b>	12.9	14.8	14.8	18.2	12.8	12.3	
<b>Net debt/equity (%)</b>	4.4	18.3	12.8	13.7	7.8	net cash	

Source: Nomura estimates

**Key company data:** See page 2 for company data and detailed price/index chart.

See Appendix A-1 for analyst certification, important disclosures and the status of non-US analysts.

# Key data on Sterlite Industries India Ltd

## Income statement (INRmn)

Year-end 31 Mar	FY10	FY11	FY12F	FY13F	FY14F
<b>Revenue</b>	<b>244,103</b>	<b>302,481</b>	<b>366,959</b>	<b>407,239</b>	<b>459,531</b>
Cost of goods sold	-173,558	-213,790	-259,809	-292,410	-337,567
<b>Gross profit</b>	<b>70,546</b>	<b>88,691</b>	<b>107,151</b>	<b>114,829</b>	<b>121,964</b>
SG&A	-8,786	-8,985	-7,655	-7,977	-8,431
Employee share expense	-8,540	-11,317	-10,370	-11,128	-11,901
<b>Operating profit</b>	<b>53,220</b>	<b>68,389</b>	<b>89,126</b>	<b>95,725</b>	<b>101,631</b>
<b>EBITDA</b>	<b>60,718</b>	<b>78,690</b>	<b>105,401</b>	<b>116,985</b>	<b>130,471</b>
Depreciation	-7,498	-10,301	-16,275	-21,260	-28,839
Amortisation	0	0	0	0	0
EBIT	53,220	68,389	89,126	95,725	101,631
Net interest expense	-3,424	-3,012	-8,090	-15,658	-17,658
Associates & JCEs	588	-2,850	-1,411	-265	1,245
Other income	19,594	26,528	29,261	31,081	33,093
<b>Earnings before tax</b>	<b>69,978</b>	<b>89,055</b>	<b>108,885</b>	<b>110,883</b>	<b>118,311</b>
Income tax	-12,330	-18,116	-22,465	-26,279	-28,683
<b>Net profit after tax</b>	<b>57,648</b>	<b>70,939</b>	<b>86,421</b>	<b>84,604</b>	<b>89,628</b>
Minority interests	-17,241	-19,945	-21,237	-21,824	-23,325
Other items	0	0	0	0	0
Preferred dividends	0	0	0	0	0
<b>Normalised NPAT</b>	<b>40,407</b>	<b>50,993</b>	<b>65,184</b>	<b>62,780</b>	<b>66,303</b>
Extraordinary items	-2,970	-568	0	0	0
<b>Reported NPAT</b>	<b>37,437</b>	<b>50,425</b>	<b>65,184</b>	<b>62,780</b>	<b>66,303</b>
Dividends	-4,210	-4,297	-3,933	-3,933	-3,933
<b>Transfer to reserves</b>	<b>33,227</b>	<b>46,128</b>	<b>61,251</b>	<b>58,848</b>	<b>62,371</b>

## Valuation and ratio analysis

FD normalised P/E (x)	8.3	6.9	5.4	5.6	5.3
FD normalised P/E at price target (x)	13.4	11.1	8.7	9.0	8.6
Reported P/E (x)	9.0	7.0	5.4	5.6	5.3
Dividend yield (%)	1.2	1.2	1.1	1.1	1.1
Price/cashflow (x)	na	5.8	3.6	4.3	3.7
Price/book (x)	1.0	0.9	0.8	0.7	0.6
EV/EBITDA (x)	6.7	4.9	4.0	3.4	2.6
EV/EBIT (x)	7.7	5.7	4.7	4.1	3.3
Gross margin (%)	28.9	29.3	29.2	28.2	26.5
EBITDA margin (%)	24.9	26.0	28.7	28.7	28.4
EBIT margin (%)	21.8	22.6	24.3	23.5	22.1
Net margin (%)	15.3	16.7	17.8	15.4	14.4
Effective tax rate (%)	17.6	20.3	20.6	23.7	24.2
Dividend payout (%)	11.2	8.5	6.0	6.3	5.9
Capex to sales (%)	28.3	46.5	11.9	8.3	6.3
Capex to depreciation (x)	9.2	13.7	2.7	1.6	1.0
ROE (%)	12.0	12.9	14.8	12.8	12.3
ROA (pretax %)	11.1	10.7	12.7	12.5	12.8

## Growth (%)

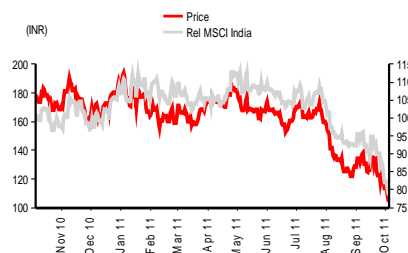
Revenue	15.4	23.9	21.3	11.0	12.8
EBITDA	29.1	29.6	33.9	11.0	11.5
EBIT	32.9	28.5	30.3	7.4	6.2
Normalised EPS	2.7	20.2	27.8	-3.7	5.6
Normalised FDEPS	2.7	20.2	27.8	-3.7	5.6

## Per share

Reported EPS (INR)	11.69	15.00	19.39	18.68	19.72
Norm EPS (INR)	12.62	15.17	19.39	18.68	19.72
Fully diluted norm EPS (INR)	12.62	15.17	19.39	18.68	19.72
Book value per share (INR)	110.10	123.26	138.82	152.92	168.11
DPS (INR)	1.25	1.28	1.17	1.17	1.17

Source: Nomura estimates

## Relative performance chart (one year)



Source: ThomsonReuters, Nomura research

(%)	1M	3M	12M
Absolute (INR)	-21.6	-38.7	-39.1
Absolute (USD)	-27.2	-44.9	-45.1
Relative to index	-16.5	-22.4	-14.6
Market cap (USDmn)	7,151.9		
Estimated free float (%)	45.0		
52-week range (INR)	195.95/103.7		
3-mth avg daily turnover (USDmn)	18.78		
Major shareholders (%)			
Vedanta	55.0		

Source: Thomson Reuters, Nomura research

## Notes

Earnings growth is likely to be limited due to higher royalty payments expected from FY13F and zinc-lead prices remaining under pressure

**Cashflow (INRmn)**

Year-end 31 Mar	FY10	FY11	FY12F	FY13F	FY14F
EBITDA	60,718	78,690	105,401	116,985	130,471
Change in working capital	-73,157	279	16,469	-1,411	1,450
Other operating cashflow	-15,782	-17,964	-23,942	-32,944	-35,328
<b>Cashflow from operations</b>	<b>-28,222</b>	<b>61,005</b>	<b>97,928</b>	<b>82,629</b>	<b>96,592</b>
Capital expenditure	-68,980	-140,754	-43,716	-34,000	-29,000
<b>Free cashflow</b>	<b>-97,202</b>	<b>-79,749</b>	<b>54,213</b>	<b>48,629</b>	<b>67,592</b>
Reduction in investments	-40,983	73,492	-61,360	-30,000	-10,000
Net acquisitions	0	0	0	0	0
Reduction in other LT assets	0	-52	52	0	0
Addition in other LT liabilities	1,449	6,264	-6,448	0	0
Adjustments	20,283	45,377	-24,281	4,968	2,298
<b>Cashflow after investing acts</b>	<b>-116,454</b>	<b>45,332</b>	<b>-37,824</b>	<b>23,597</b>	<b>59,890</b>
Cash dividends	-4,210	-4,297	-3,933	-3,933	-3,933
Equity issue	76,529	25	0	0	0
Debt issue	22,465	24,687	49,261	891	-698
Convertible debt issue	0	0	0	0	0
Others	0	0	0	0	0
<b>Cashflow from financial acts</b>	<b>94,783</b>	<b>20,415</b>	<b>45,328</b>	<b>-3,041</b>	<b>-4,631</b>
<b>Net cashflow</b>	<b>-21,670</b>	<b>65,747</b>	<b>7,504</b>	<b>20,556</b>	<b>55,260</b>
Beginning cash	55,048	33,378	99,124	106,628	127,185
Ending cash	33,378	99,124	106,628	127,184	182,445
Ending net debt	59,222	18,163	59,920	40,255	-15,703

Source: Nomura estimates

**Notes**

Strong free cash flows expected ahead as most capex nearing completion

**Balance sheet (INRmn)**

As at 31 Mar	FY10	FY11	FY12F	FY13F	FY14F
Cash & equivalents	33,378	99,124	106,628	127,185	182,445
Marketable securities	0	0	0	0	0
Accounts receivable	5,709	15,950	12,807	15,011	16,460
Inventories	29,827	51,547	43,644	49,261	52,742
Other current assets	106,200	112,770	93,332	95,097	96,583
<b>Total current assets</b>	<b>175,114</b>	<b>279,391</b>	<b>256,412</b>	<b>286,554</b>	<b>348,229</b>
LT investments	203,045	129,553	190,913	220,913	230,913
Fixed assets	233,500	335,475	393,819	409,394	415,990
Goodwill	0	0	0	0	0
Other intangible assets	0	0	0	0	0
Other LT assets	0	52	0	0	0
<b>Total assets</b>	<b>611,659</b>	<b>744,471</b>	<b>841,144</b>	<b>916,861</b>	<b>995,132</b>
Short-term debt	0	0	0	0	0
Accounts payable	38,107	67,539	60,160	68,039	75,147
Other current liabilities	11,212	20,590	13,954	14,249	15,006
<b>Total current liabilities</b>	<b>49,319</b>	<b>88,128</b>	<b>74,114</b>	<b>82,289</b>	<b>90,154</b>
Long-term debt	70,374	97,365	146,626	147,518	146,820
Convertible debt	22,226	19,922	19,922	19,922	19,922
Other LT liabilities	15,524	21,789	15,340	15,340	15,340
<b>Total liabilities</b>	<b>157,443</b>	<b>227,204</b>	<b>256,002</b>	<b>265,068</b>	<b>272,235</b>
Minority interest	84,096	102,913	118,494	137,720	157,772
Preferred stock	0	0	0	0	0
Common stock	1,681	3,361	3,361	3,361	3,361
Retained earnings	32,499	46,128	61,251	58,848	62,371
Proposed dividends	2,901	4,297	3,933	3,933	3,933
Other equity and reserves	333,039	360,568	398,103	447,931	495,460
<b>Total shareholders' equity</b>	<b>370,120</b>	<b>414,355</b>	<b>466,648</b>	<b>514,073</b>	<b>565,125</b>
<b>Total equity &amp; liabilities</b>	<b>611,659</b>	<b>744,471</b>	<b>841,144</b>	<b>916,861</b>	<b>995,132</b>

**Notes**

Resilient balance sheet with strong cash reserves

**Liquidity (x)**

Current ratio	3.55	3.17	3.46	3.48	3.86
Interest cover	15.5	22.7	11.0	6.1	5.8

**Leverage**

Net debt/EBITDA (x)	0.98	0.23	0.57	0.34	net cash
Net debt/equity (%)	16.0	4.4	12.8	7.8	net cash

**Activity (days)**

Days receivable	10.8	13.1	14.3	12.5	12.5
Days inventory	57.2	69.5	67.0	58.0	55.1
Days payable	73.4	90.2	89.9	80.0	77.4
Cash cycle	-5.3	-7.7	-8.6	-9.6	-9.8

Source: Nomura estimates

## Investment thesis

*Sterlite's stock price has remained weak following a series of negative developments, i.e. shortages of coal, denial of a bauxite mine, environmental issues at VAL, etc. While we acknowledge the issues that Sterlite Industries is facing, we believe some positive developments should start to emerge with the power business ramping up operations. Power operations will likely be a key catalyst to a turnaround in the share price, in our view, as Sterlite Energy (SEL) is on the verge of commissioning its third unit, and the already-commissioned other two units are running at 50-55% plant load factor (PLF), as per Central Electrical Authority (CEA) data.*

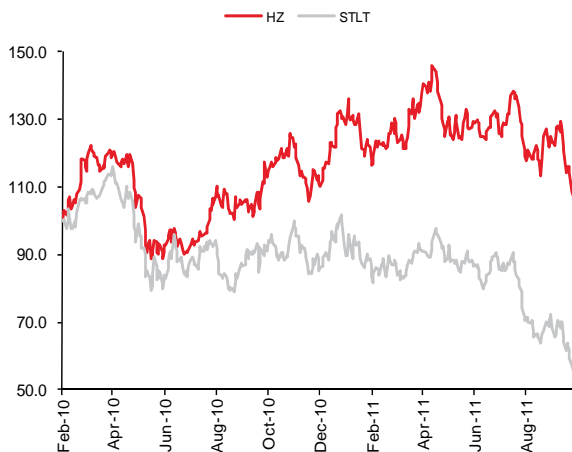
*Our positive stance on Sterlite Industries gets support from our belief that most, if not all, of the negative news flow has already hit and the stock has overreacted, in our view. With an end to the negative news, improving operations and better earnings visibility, we believe the stock should give strong returns. We maintain our Buy rating on the stock, and revise our target price to INR169.*

### Negative news flow key to Sterlite's underperformance vs HZ

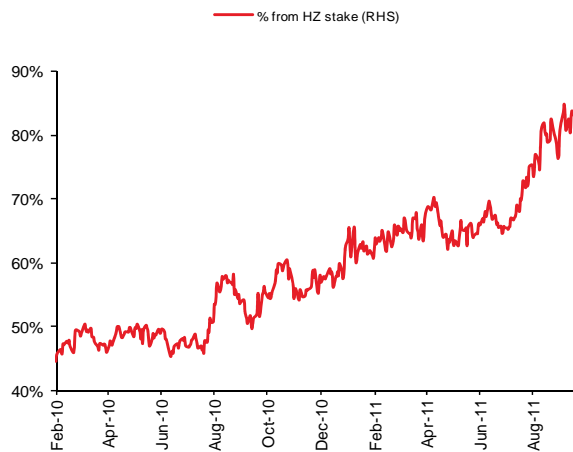
Sterlite Industries stock has underperformed HZ's by close to 40% over the past two years, undermined by a series of negative news reports, i.e. denial of a bauxite mine, environmental issues at the aluminium operations of Vedanta Aluminium (VAL) (Sterlite Industries holds a 29.5% stake in VAL) and coal shortages at SEL. In comparison, HZ remained largely free of any controversy and has performed well. While we agree with HZ's valuation and believe it is fair, Sterlite Industries stock has been over-penalized, in our view.

HZ contributes ~58% of Sterlite Industries' total value, on our estimates. Nonetheless, HZ stock has outperformed Sterlite Industries by 50% over the past two years. A look at the charts overleaf suggests that the stake in HZ contributes ~86.5% of Sterlite Industries' total value based on current market capitalization (on our calculations it should be 58% of total value). This is despite the fact that only 50-55% of Sterlite's earnings are from its stake in HZ. Note that the value contribution from the stake in HZ has increased from 47% in Feb 2010 to 86.5% now, despite our estimates that earnings contribution will fall from 70% in FY10 to close to 51% in FY12F.

In our view, this shows that Sterlite Industries is undervalued compared to HZ at current levels. Even for Sterlite's zinc business, with which the charts overleaf suggest the market is comfortable, it is being valued at a discount vs HZ's valuation based on current market capitalization.

**Fig. 1: HZ vs Sterlite Industries stock performance**

Source: Bloomberg, Nomura research

**Fig. 2: Contribution of HZ's stake to Sterlite Industries' stock price**

Source: Bloomberg, Nomura research

## Sterlite Industries stock valuing only the zinc business at present; other operations ignored

The chart above suggests that while the market is comfortable with its zinc business, other businesses appear to be getting penalized for uncertainties. At its current valuation, we believe Sterlite Industries is being valued just for its zinc business — i.e., its 64.9% stake in HZ and overseas zinc assets acquired earlier this year.

In our view, the current share price of Sterlite Industries is not giving any value to the following operations:

- 1) The aluminium business, comprising a 51% stake in Balco and a 29.5% stake in VAL. At the same time, we see no value assigned to Sterlite's INR80.2bn loan to VAL. This implies to us that the aluminium business is ascribed a negative equity value of INR81bn.
- 2) The 100% owned power business, Sterlite Energy (SEL, unlisted), is also being valued at zero, and even loans and advances from Sterlite to SEL are not being given any value. Thus, in effect, we see SEL as being valued at negative equity of INR41bn.
- 3) The copper smelting business is also not being valued which on our valuation should contribute INR 8.4/share.

On our calculations, even under a stressed case scenario (described below) and at the current market cap of HZ, Sterlite stock should be valued at INR108/share. Some key estimates for the stress case scenario are as following:

- 1) HZ and overseas zinc businesses valued at zinc and lead prices of USD1,600/t (current zinc and lead prices are at USD1,860/t and US\$ 1,900/t respectively)
- 2) Zero value to Sterlite Energy (SEL) and its stakes in Balco and Vedanta Aluminium
- 3) Loan of INR80bn to VAL written off

Even in the above scenario, Sterlite Industries can be valued at INR108/share, according to our estimates. Given the current price of INR104, the market is already valuing the stock at the stressed level, therefore, we believe that at the current level, the risk-reward is favourable for Sterlite Industries.

**Fig. 3: Sterlite: stressed case scenario valuation**

Entity	Stress case valuation (INRmn)	Per share (INR)	Assumptions	Valuation methodology
Stake in HZ	247,956	73.8	Zn & Pb prices of US\$1600/t	10x FY13E EPS
Overseas Zinc assets	50,400	15.0	Zn & Pb prices of US\$1600/t	DCF
Standalone copper business	28,224	8.4		8x FY13E EPS
Investments ex loans to VAL	37,696	11.2	INR80bn loan to VAL written off	
Zero value to other businesses				
<b>Total value</b>		<b>108</b>		

Source: Company data, Nomura estimates, Pb-lead, Zn-Zinc

## We believe the above discounting is not justified...

### VAL – we recognise problems but shouldn't default on its debt

While we agree with the zero equity value ascribed to VAL because of the delay in expansion plans and high cost of production at its existing operations, we do not agree with the view that Sterlite's loans to VAL should not be valued either. Vedanta Resources holds 70.5% equity in VAL, and even if expansion plans are delayed, we do not see a scenario of VAL defaulting on its debt as Vedanta, the holding company, is unlikely to allow VAL to default, in our view.

At the same time, we believe most of the issues facing VAL are short term in nature. According to the company, the plants are ready for commissioning, and we expect to see some progress on the bauxite mine allocation and environmental issues as the state government of Orissa is favourable to these projects. Orissa has large untapped bauxite reserves and the state government has been favourable to the projects of VAL. Earlier VAL was allotted a mine at Niyamgiri but was denied environmental clearance. Post that, VAL is still awaiting allocation of a new mine. To be conservative, we have not built in any positive upside from the above to our estimates.

### Sterlite Energy – does not deserve negative value

At Sterlite's current valuations, the market appears to be ascribing SEL a negative value as the shares of Sterlite are neither valuing the power business, nor the INR41bn loan from Sterlite to SEL. Thus, SEL effectively is getting assigned negative equity value of INR41bn, on our estimates.

We believe Sterlite doesn't deserve a negative value for this business, as SEL is operating at 50-55% PLF and, has been profitable in 1HFY12 despite high coal costs.

Even on our conservative estimates, we think SEL should get assigned a positive value, given that it has two units of 600MW up and running, while a third unit is in the process of commissioning. During 1HFY12, SEL reported PLF of 50-55%, which is in line with our estimates. We have built in PLF assumptions of 55% in FY12F and FY13F. Even our coal cost assumptions are high, as we have built in fuel costs to remain in excess of INR1.5/unit.

Note that we are assuming just 35% of total coal (at 55% PLF, 15-20% of total requirement at rated PLF) to come through linkage, 10-15% through imports and the rest through E-Auction. Even at what we believe are conservative estimates, we value the power business using DCF at an equity value of INR11.5bn (close to its book value).

## Strong earnings growth expected in FY12F driven by overseas zinc operations and SEL

According to management, most of the Sterlite Industries' expansion plans are complete, and we expect to see earnings growth led primarily by power business and zinc business acquired overseas.

- 1) HZ already has commissioned a 210KT zinc and the 100KT lead expansion, while silver expansion is underway.
- 2) Sterlite Energy has commissioned the first two units of 600MW each which are operating at 50-55% PLF and the remaining units should be completed in the next two quarters.

- 3) VAL (29.5% owned by Sterlite) should see full production from its 500KT aluminium smelter and 1mn tonne alumina refinery from FY12F. However further expansion plans remain deferred due to environmental issues. We don't expect any near-term solution to these issues.
- 4) Balco's (51% owned by Sterlite) capacity expansion of 325KT is still on hold, but a 1,200MW (4\*300MW) power plant is under construction and should come on line in the next 6-9 months, according to management.
- 5) Another potential growth avenue we see is expansion at the recently acquired (Feb-2011) Gamsberg mine, where Sterlite Industries expects to produce 400KTPA of zinc in 2-3 years' time with an investment of USD2bn.

Given the above-mentioned capacity expansion plans/phases, we expect Sterlite Industries' consolidated EPS to increase at a CAGR of ~12% during FY11-13F, with FY12F earnings growth of close to 32% y-y.

Our forecast earnings growth for FY12 is driven by: 1) zinc earnings from assets acquired from Anglo American in February 2011; and 2) growing contributions from the power business as capacities come online. In FY13F, however, we see earnings suffering somewhat from higher royalty payments to be made at HZ.

**Fig. 4: Sterlite: consolidation of earnings**

(INR mn)	FY10	FY11	FY12E	FY13E	FY14E
HZ (64.9% stake)	26,229	31,804	33,895	32,846	34,783
% contribution	70.1%	63.1%	52.0%	52.3%	52.5%
Balco (51% stake)	2,734	2,248	1,685	3,159	2,916
% contribution	7.3%	4.5%	2.6%	5.0%	4.4%
Sterlite standalone	8,315	14,197	15,942	15,395	15,031
% contribution	22.2%	28.2%	24.5%	24.5%	22.7%
Sterlite energy		76	976	3,360	5,669
% contribution		0.2%	1.5%	5.4%	8.6%
Overseas zinc assets		3,629	14,422	12,720	13,019
% contribution		7.2%	22.1%	20.3%	19.6%
VAL (29.5% stake)	588	(2,850)	(1,411)	(265)	1,245
% contribution	1.6%	-5.7%	-2.2%	-0.4%	1.9%
Total	37,437	50,425	65,184	62,780	66,303
EPS (INR)	11.1	15.0	19.4	18.7	19.7

Source: Company data, Nomura estimates

## Dependence on HZ to decline, but zinc remains the key driver

HZ's earnings contribution will likely come down with improving power operations and a growing contribution from overseas zinc business. We estimate that HZ will account for 51.9% of total earnings in FY13F, down from 63.1% in FY11. However, we look for the zinc business as a whole (i.e., comprising overseas business) to account for 72% of earnings by FY13F, up from 70.3% in FY11, despite higher power earnings.

Once again, we note that despite Sterlite Industries deriving close to 52% of its earnings from stakes in HZ and 72% from zinc business, Sterlite Industries shares have significantly underperformed HZ shares over the past two years.

## Our estimates are conservative, we believe

Our revised estimates capture the following key considerations:

- 1) For SEL, 55% PLF in FY12F and FY13F and an average coal cost of INR2,584/t (4000 Kcal coal). Of note, SEL is already operating at 55% PLF and we do not build in any improvement in utilization over the next two years (therefore, we are not overly optimistic). Even on the coal cost side, our assumptions build in a 65-70% coal purchase from E-Auction and imports. Our average coal cost is higher than the current E-Auction price of INR2,400-2,500/t.
- 2) For Balco and VAL, we build in a continued high cost of production at USD1,900-2,000/t. We are not ascribing any value creation from the USD5bn of capex already incurred but mired in environmental issues. The resolution of environmental issues would be a key catalyst to the stock, in our view.
- 3) We have not built in any production/reserve upside from overseas zinc assets.

## **We value Sterlite at INR169/share, maintain Buy**

We value Sterlite Industries at INR169/share (from INR196 earlier) on a sum-of-the-parts basis. While our methodology is unchanged, our revised target price is driven by lower valuations of Sterlite Energy and HZ. Our INR169 target price breaks down as follows: The Hindustan Zinc stake contributes INR97.7/share (HZ valued at 10x FY13F EPS of INR12); overseas zinc assets contribute INR19.8/share based on DCF; the aluminium business (ie, stakes in Balco and VAL) contributes INR4.6/share at 5x FY13F EV/EBITDA; the power business (SEL) contributes INR3.4/share using DCF; the standalone copper business contributes INR8.4/share; and INR35/share comes from cash and investments.

## **Stake sale by the government in HZ and Balco could unlock cash potential at HZ**

The Government of India holds a 24.5% stake in HZ and a 49% stake in Balco. Sterlite Industries has a call option to purchase the government's stakes in the two companies. However the transaction has been on hold as there has been disagreement on valuation (between the government and Sterlite Industries) and on the legality of these call options. Any decision by the government to sell its stakes in HZ and Balco would be positive for Sterlite Industries, as HZ's cash of INR 190bn (by end FY12E) could be utilized in a much better way. Due to delays in the government's approval, HZ couldn't acquire the overseas zinc assets (which could have utilized the cash reserves at HZ) which Sterlite Industries had to undertake on its own books. Please note that we have not built in any upside from the above stake sales in our estimates.



# Sterlite Energy (SEL)

## Lower PLF, higher coal costs the key concern

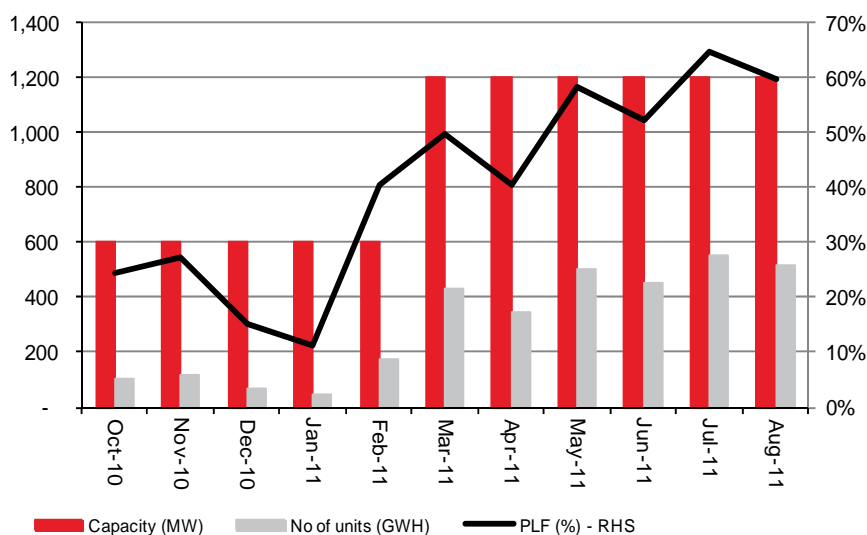
Sterlite Energy has faced several delays in the stabilization of its power plants primarily on account of: 1) evacuation problems and 2) coal-linkage problems. While evacuation issues have been resolved now, coal is still an issue.

The two commissioned units operated at 50-55% PLF during April-August, and a third unit is in the process of commissioning. At present, SEL is getting 35% of its total coal requirement (at 55% PLF) through linkage and the rest through E-Auction and imports. While we expect the coal supply to improve, given higher production by Coal India, we still build in coal procurement in the same proportion.

Some details on our key estimates for SEL are as following:

- 1) **We build in conservative PLF of 55% for FY12F and FY13F** due to continued coal constraints. However, in the long term, we build in a PLF assumption of 75% (in FY15F). We estimate the sale of 5.4bn units of electricity in FY12F and 10.9bn units in FY13F.

Fig. 5: Sterlite Energy’s PLF has improved gradually over the past 8 months

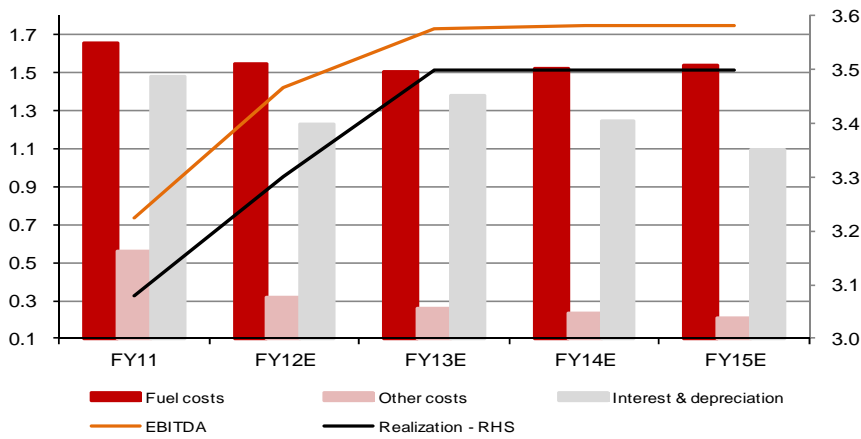


Source: Company data, Central Electricity Authority (CEA)

- 2) **We estimate average realization of INR3.3/KWH in FY12F and INR3.5 in FY13F**  
 Although Sterlite will likely be selling all its power (except from the first unit of 600MW which will be sold through power purchase agreements [PPA]) on a merchant basis, we have built in average realization assumptions of INR3.3/KWH in FY12F and INR3.5/KWH in FY13F. Note that realizations during 1QFY12 were close to INR3.6/KWH
- 3) **We build in an average coal cost of INR2,584/t (calorific value: 4,000 kcal) in FY12F** - We have increased our coal cost estimate from INR1,600/t to INR2,584/t in FY12F primarily because of higher procurement from E-Auction. Note that our average coal price estimates are even higher than the landed cost of the E-Auction price, which is close to INR2,500/t for 3,800-4,000Kcal calorific value. We have built in a fuel cost in the range of INR1.5-INR1.55/KWH for FY12F and beyond.

**Fig. 6: Cost structure should improve with stabilization of operations**

Per unit cost (INR/KWH)

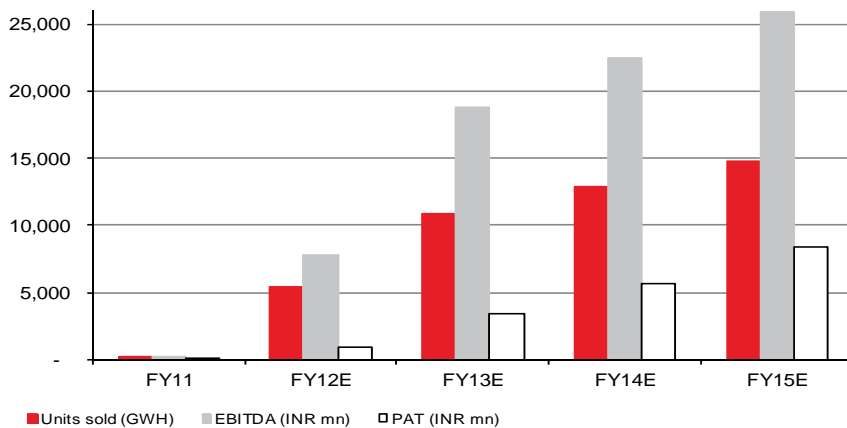


Source: Company data, Nomura estimates

4) **We build in 10% cost of debt** – We expect SEL to have close to INR98.6bn of debt by end-FY12F, when all four units are ready for commissioning (the third unit is under commissioning, and the fourth unit will come on line by the end of this year). We estimate interest costs of INR9.9bn from FY13F, at a cost of debt of 10%. Note that out of INR98.6bn in debt, Sterlite Industries has loaned INR41bn to SEL.

We expect SEL to see strong earnings growth during FY11-15F, with commissioning and stabilization of its power plants, despite higher coal costs.

**Fig. 7: SEL should see strong earnings growth**



Source: Company data, Nomura estimates

**Fig. 8: Key estimates for SEL**

	FY11	FY12E	FY13E	FY14E
Year end capacity (MW)	1,200	1,800	2,400	2,400
Units sold (GWH)	211	5,435	10,869	12,846
Average power rate (INR/KWH)	3.1	3.3	3.5	3.5
Coal cost (INR/unit)	1.7	1.6	1.5	1.5
Total operating cost (INR/unit)	2.3	1.9	1.8	1.8
EBITDA (INR mn)	156	7,733	18,843	22,424
Interest cost (INR mn)	191	3,760	9,898	9,934
Depreciation (INR mn)	121	2,897	5,097	6,059
Net profit (INR mn)	76	976	3,360	5,669

Source: Company data, Nomura estimates

## Other businesses

### Zinc business (Hindustan Zinc – 64.9% stake, overseas zinc business)

#### Stakes in HZ

Sterlite holds zinc business through a 64.9% stake in Hindustan Zinc (HZ IN, INR112, Neutral). The stake in HZ contributes 52% of Sterlite's consolidated FY12F earnings and close to 58% of its total value as per our estimates.

Despite weaker zinc prices (off by close to 12% over the past two months), we do not expect HZ to see a major impact on realizations given an 8% corresponding depreciation in the INR. We recently reduced our HZ EPS estimates by 1% for FY12F and by 3.9% for FY13F on account of expected slightly lower zinc realizations and higher royalty payments related to a new mines and minerals bill (which has been approved by the cabinet and will be presented in parliament during the winter session) which asks for an amount similar to a royalty to be paid toward a fund for the rehabilitation of the displaced people.

For more details, please see our note: *Hindustan Zinc – Downside support but upside capped*, 7 October, 2011.

**Fig. 9: HZ: key financials**

	FY09	FY10	FY11	FY12E	FY13E
Sales volume (tonnes)					
Zinc	552,330	577,685	712,603	750,812	799,731
Lead	60,564	64,391	57,229	105,000	140,650
Total metal volume	612,894	642,076	769,832	855,812	940,381
Sulphuric acid	974,587	1,038,496	1,191,847	1,315,940	1,445,977
Silver sales (KG)	103,125	139,130	146,558	280,870	348,957
Realization					
Zinc	1,600	1,960	2,250	2,000	2,000
Lead	1,650	2,000	2,300	2,000	2,000
Sulphuric acid	4,932	981	2,614	3,000	3,000
Silver (INR/t)	20,353	24,724	37,090	55,000	55,000
INR - USD rate	45.0	47.0	45.5	47.5	48.0
EBITDA	27,342	46,701	54,956	57,031	55,718
Other income	9,312	7,222	9,792	13,335	15,156
Net profit	27,276	40,414	49,005	52,227	50,610
EPS (INR)	6.5	9.6	11.6	12.4	12.0
Cash and Eq (net)	96,480	118,767	149,675	189,942	223,892
Book value/share	34	43	53	65	75

Source: Company data, Nomura estimates

#### Overseas zinc assets (100% stake)

Sterlite completed the acquisition of four zinc mines held by Anglo American in February 2011. Overseas zinc businesses will likely contribute close to 11.7% of Sterlite's target price.

We build in total zinc and lead production of 340,000 tonnes and 54,000 tonnes, respectively, in FY12F overseas assets. Note that we build a contribution from the Gamsberg mine to start only after FY14F when the mine comes onstream.

At an assumed zinc price of USD2,000/t, we expect Sterlite's overseas zinc assets to generate total EBITDA of USD518mn in FY12F and in FY13F and net profit of USD320mn in FY12F and USD283mn in FY13F, respectively.

**Fig. 10: Mine-wise production details**

Production ('000 tonnes)	FY11	FY12E	FY13E	FY14E
<b>Lisheen</b>				
Lead	16	16	18	18
Zinc	148	149	143	143
Silver (tonnes)	4.4	4.6	5.0	5.1
<b>Skorpion</b>				
Zinc	155	160	163	163
<b>Black mountain</b>				
Lead	52	39	32	32
Zinc	26	30	33	30
Silver (tonnes)	58	47	42	42
<b>Gamsberg mine</b>				
Lead		-	-	19
Zinc		-	-	207

Source: Brook hunt, Company data, Nomura estimates

**Fig. 11: Overseas zinc operations: Key financials**

Sales volume	FY12E	FY13E	FY14E	FY15E
Pb('000tonnes)	55	50	69	68
Zn('000tonnes)	339	339	543	524
Ag(tonnes)	54	58	63	50
<b>Total revenues (US\$ mn)</b>	<b>923</b>	<b>904</b>	<b>1,372</b>	<b>1,423</b>
Total costs (US\$ mn)	405	386	752	714
<b>EBITDA (US\$ mn)</b>	<b>518</b>	<b>518</b>	<b>621</b>	<b>709</b>
Depreciation (US\$ mn)	63	63	143	143
PBT (US\$ mn)	455	455	478	566
Taxes (US\$ mn)	111	143	154	170
PAT (US\$ mn)	344	311	323	396
Minority interest (US\$ mn)	24	29	34	51
<b>Net profit (US\$ mn)</b>	<b>320</b>	<b>283</b>	<b>289</b>	<b>345</b>

Source: Company data, Nomura estimates

## Aluminium business

### Balco (51% stake)

Sterlite's aluminium business is held through its 51% stake in Balco (unlisted) and 29.5% stake in VAL (unlisted). Since Sterlite is a minority shareholder of VAL, we have included earnings from VAL through share of associates.

Our key assumptions for Balco are as following:

- 1) We build in a 1,200MW power plant coming on line by 2HFY13 and operating at 55-60% utilization in the first year.
- 2) We build in alumina cost at close to USD450/t, and assume total cost of aluminium production would be close to USD2,000-2100/t for FY12F and FY13F.
- 3) We do not build in any production from the 325ktpa aluminium smelter expansion.

**Fig. 12: Balco – Key financials**

	FY10	FY11	FY12E	FY13E
Aluminium sales (tonnes)	267,802	247,412	270,000	270,000
Power sales (mn units)	1,354	1,851	1,722	4,547
Al prices (US\$/tonne)	1,800	2,088	2,100	2,200
EBITDA (INR mn)	7,472	8,335	7,544	14,430
Interest cost (INR mn)	280	201	1,078	2,508
Net profit (INR mn)	5,360	4,407	3,305	6,194
Net debt (INR mn)	20,068	22,853	46,112	43,702

Source: Company data, Nomura estimates

We believe there could be some upside to our estimates if: 1) alumina costs come down with a global downturn; and 2) the 1,200MW power plant ramps up faster than expected and if the coal block allotted is developed by next year; PLF also could be higher as well.

### Vedanta Aluminium (VAL) (29.5%)

VAL continues to face hurdles in its ramp-up on account of: 1) a delay in bauxite mine allocation by the government; and 2) environmental clearance to its expansion plans. As a result, we do not build in any significant improvement on these issues in our estimates.

VAL will likely remain a loss-making unit until the above problems are resolved. We estimate EBITDA to fall in FY12F on account of a production disruption at VAL (impact in 1Q FY12) which will not only hamper production but also increase costs. We do not expect a major turnaround in these operations until the company is awarded a bauxite mine and can operate at expanded capacity.

Our key assumptions are as follow:

- 1) Annual operational capacity of 1mn tonnes of alumina and 0.5mn tonnes of aluminium. We do not estimate any improvement in the issues they are facing.
- 2) Continued high production costs, although they should moderate from current levels with the stabilization of capacity. We forecast aluminium cost of production at USD2,200/t in FY12F and USD2,000/t in FY13F. We look for alumina cost of production to remain high at USD250/t because of the external purchase of bauxite.
- 3) We estimate capital work in progress (CWIP) of INR190bn to remain unutilized due to unresolved environmental issues.

**Fig. 13: VAL: key financials**

	FY10	FY11	FY12E	FY13E
Alumina production (tonnes)	762,000	707,000	807,000	957,000
Aluminium sales (tonnes)	264,000	386,000	370,000	440,000
Alumina sales (tonnes)	234,000	0	81,800	94,600
Al cost of production (US\$/t)	1,650	2,000	2,200	2,000
<b>EBITDA (INR mn)</b>	<b>6,652</b>	<b>5,281</b>	<b>2,322</b>	<b>9,219</b>
<b>Net profit (INR mn)</b>	<b>2,034</b>	<b>-2,040</b>	<b>-4,784</b>	<b>-897</b>

Source: Company data, Nomura estimates

### Standalone copper business (100%)

Sterlite's copper business consists of pure smelting operations. It also has copper mines in Tasmania with annual production close to 28,000 tonnes and mine life of five to six years.

We expect EBITDA of INR9.8bn in FY12F and INR9.2in FY13F from the standalone business. Treatment charges have improved from last year's level, and with higher acid prices expected, we think profitability will be much better compared with FY11. At the same time other income will likely come down as Sterlite has used USD1.36bn to purchase zinc assets abroad.

**Fig. 14: Copper business – key financials**

(INR mn)	<b>FY10</b>	<b>FY11</b>	<b>FY12E</b>	<b>FY13E</b>
Tc/Rc (Cents/lb)	14.0	15.0	15.0	15.0
CC* production (tonnes)	334,174	303,991	303,991	310,071
<b>EBITDA</b>	<b>5,091</b>	<b>6,803</b>	<b>9,770</b>	<b>9,196</b>
Other income	11,193	16,241	14,833	14,833
<b>Net profit</b>	<b>8,315</b>	<b>14,197</b>	<b>15,942</b>	<b>15,395</b>
Net cash & investments	117,131	123,915	131,708	140,894

Source: Company data, Nomura estimates \*CC: Copper Cathode

## Consolidation of earnings

Sterlite should see strong earnings growth in FY12F driven by overseas zinc assets and a gradual turnaround in the power business, in our view. However, with zinc and lead prices expected to remain under pressure, FY13F earnings are likely to suffer. VAL will also remain a drag on profits, we expect, until there is more clarity on pending issues.

Please see the table below for more details:

**Fig. 15: Consolidation of earnings**

(INR mn)	<b>FY10</b>	<b>FY11</b>	<b>FY12E</b>	<b>FY13E</b>	<b>FY14E</b>
Hindustan Zinc	26,229	31,804	33,895	32,846	34,783
% contribution	70.1%	63.1%	52.0%	52.3%	52.5%
Balco	2,734	2,248	1,685	3,159	2,916
% contribution	7.3%	4.5%	2.6%	5.0%	4.4%
Sterlite standalone	8,315	14,197	15,942	15,395	15,031
% contribution	22.2%	28.2%	24.5%	24.5%	22.7%
Sterlite energy		76	976	3,360	5,669
% contribution		0.2%	1.5%	5.4%	8.6%
Overseas zinc assets		3,629	14,422	12,720	13,019
% contribution		7.2%	22.1%	20.3%	19.6%
Vedanta Aluminium	588	(2,850)	(1,411)	(265)	1,245
% contribution	1.6%	-5.7%	-2.2%	-0.4%	1.9%
<b>Total</b>	<b>37,437</b>	<b>50,425</b>	<b>65,184</b>	<b>62,780</b>	<b>66,303</b>
<b>EPS (INR)</b>	<b>11.1</b>	<b>15.0</b>	<b>19.4</b>	<b>18.7</b>	<b>19.7</b>

Source: Company data, Nomura estimates

## We expect to see a stock turnaround

Sterlite Industries has seen a spate of negative news flow over the past 12 months with all its businesses except zinc facing one issue after the other, i.e., denial of bauxite mine, environmental issues at VAL, coal shortages, etc. This has been reflected in the stock's performance, as the shares have underperformed HZ by 40% in the past two years (before this, HZ shares generally performed in line with Sterlite shares). We believe most of the negatives are priced in the stock price at current levels. The stock is trading at 5.6x FY13F consolidated EPS of INR18.7 and 0.8x FY12F P/B which is at a discount to its peers and historical multiples.

We expect the outlook to improve as the power business should start contributing to profits from FY13F, despite higher coal costs, driven by capacity expansion. In addition, we look for the recent acquisition of Anglo American's zinc assets to start contributing to the bottom line. All in, our forecasts imply an earning CAGR of 12% over FY11-13F.

While there have been temporary setbacks in terms of a deferral of VAL projects and denial of the bauxite mine on environmental issues, we believe the positive long-term story of these projects remains intact. With the execution problems in the power business also seeming to be straightened out, we believe the stock should see a positive turnaround in the coming 12 months. Hence, we maintain our Buy rating on the stock with a new target price of INR169.

**Fig. 16: Sterlite Industries: valuation summary**

Entity	Value of entity (INR mn)	Sterlite's Stake (%)	Discount (%)	Value to Sterlite's stake (INR mn)	Per share	Valuation methodology	% of value	Previous valuation
Hindustan Zinc	506,098	64.9	0	328,458	97.7	10x FY13F earnings	57.8%	106.0
Balco	27,267	51.0	0	13,906	4.1	5x FY13F EV/EBITDA	2.4%	4.8
Vedanta Aluminium	6,094	29.5	17	1,492	0.4	5x FY13F EV/EBITDA	0.3%	0.6
Sterlite core business	28,224	100	0	28,224	8.4	8x FY13F core earnings	5.0%	8.6
Cash & other investments	117,900	100	0	117,900	35.1		20.8%	29.0
Overseas zinc assets	66,667	100	0	66,667	19.8	DCF at 13% cost of equity	11.7%	21.0
Sterlite energy	11,531	100	0	11,531	3.4	DCF at 13.5% cost of equity	2.0%	26.0
<b>Total value</b>				<b>568,177</b>	<b>169</b>			<b>196</b>
<b>Target price (INR)</b>								<b>169</b>

Source: Company data, Nomura estimates

## Valuation

### We value Sterlite on a sum-of-the-parts basis:

- 1) We value Hindustan Zinc at 10x FY13F EPS of INR12.0 to arrive at a total valuation of INR506bn. Sterlite's 64.9% stake is valued at INR328.4bn, contributing INR97.7/share. HZ stakes contributes 57.8% of our target price. Earlier we had valued the company at 10x FY12F core earnings and added the cash and equivalents of INR119bn to arrive at a value of INR486bn.
- 2) We value Sterlite's core copper business at 8x FY13F core profits. It contributes INR8.4/share to our price target. Our valuation methodology remains unchanged.
- 3) Sterlite standalone at end-FY11 had net cash and equivalents of INR117.9bn, contributing INR35.1/share to our price target. Please note that of the above, INR80bn is loaned to VAL and INR41bn to SEL.
- 4) We have valued Sterlite Energy at a total equity value of INR11.5bn using DCF and contributing INR3.4/share. Our valuation is close to SEL's book value. Earlier, we had valued it at INR86bn, primarily reflecting 1) higher coal costs; 2) lower PLF (from 80% earlier to 55-60% now); and 3) a delay in commissioning of project.
- 5) We value Balco at 5x FY13F EV/EBITDA. Balco contributes INR4.1/share to our target price.
- 6) We value VAL at 5x FY13F EV/EBITDA at INR6bn. It contributes INR0.4/share to our target price. We have valued capital work in progress (CWIP) of INR185bn at its book value. Earlier we had valued VAL at INR8.7bn – the revised lower valuation reflects our higher cost estimates because of a delay in stabilization.
- 7) We have valued overseas zinc assets at USD1.39bn using DCF. The drop in valuation from USD1.6bn previously is primarily due to our lowered zinc price estimates.

## Details of Sterlite's investments

Sterlite has close to INR175.5bn of gross cash and investments, and net cash and investments of INR117.9bn. However, only about INR50bn of this is in cash and liquid investments. The remainder of its investments are loaned to group companies.

- 1) Sterlite has loaned INR80.2bn to VAL. While we do not expect VAL to default on its loans, the market has not assigned this loan any value.
- 2) Sterlite has loaned INR41bn to SEL. Not valuing this investment would mean ascribing a negative value to SEL as we have already treated it as debt while valuing SEL.

**Fig. 17: Details on Sterlite's cash and investments (end-FY11)**

(INR mn)	<b>FY11</b>
0% Optional FCD of SOVL	4,443
Current investments (MF)	30,954
Loans and advances to VAL	80,204
Loans to Sterlite Energy	40,996
Cash	18,913
<b>Total cash and investments</b>	<b>175,510</b>
Total debt	57,610
<b>Net cash &amp; eq</b>	<b>117,900</b>
<b>Per share (INR)</b>	<b>35.1</b>
<b>Ex VAL investments/share (INR)</b>	<b>11.2</b>

Source: Company data

**Fig. 18: Valuation of overseas zinc business**

(US\$ mn)	DCF value	Sterlite's stake	Value of stake	Acquisition cost
Lisheen	263	100%	263	271
Skorpion	699	100%	699	707
Black mountain	421	74%	311	348
Gamsberg mine	156	74%	116	
<b>Total value</b>			<b>1,389</b>	<b>1,326</b>

Source: Company data, Nomura estimates

## Key risks

- 1) Weaker-than-expected metal prices: We expect zinc prices to remain in the range of USD2,000/t over the next two years. However, if zinc prices turn weak, there could be downside risk to our estimates.
- 2) Coal supply worsens from current levels: we have built in a PLF assumption of 55% for the next two years. If coal supply worsens, our estimates could have downside risk.
- 3) Foray into new fields: Sterlite's promoter, Vedanta Group, has shown its inclination to go for major acquisitions in new fields and channel it through its subsidiaries. While we believe these acquisitions may be value-creative in the long term, there can be short-term knee-jerk reactions to these deals. We believe given its history, investors should be prepared for this possible risk.



**Fig. 19: Relative valuation**

Company Name	Ticker	Currency	Rating	Price (Local currency)	P/E (x)		ROE (%)		Operating margin (%)		EV/EBITDA CY12E/FY13E
					CY12E/FY13E	CY12E/FY13E	CY12E/FY13E	CY12E/FY13E	CY12E/FY13E		
BHP BILLITON LTD	BHP AU	AUD	Suspended	34.0	7.1	2.3	27.3%	55.4%		3.9	
RIO TINTO LTD	RIO AU	AUD	Suspended	59.0	6.0	1.3	21.9%	46.5%		3.5	
SOUTHERN COPPER	SCCO US	USD	Not rated	24.0	7.2	3.2	53.5%	62.6%		4.6	
VALE SA-PF A	VALE5 BZ	BRL	Suspended	38.3	4.6	1.1	22.7%	61.2%		3.8	
GRUPO MEXICO-B	GMEXICOB IN	MXN	Not rated	32.9	6.8	2.1	34.5%	55.3%		3.6	
SESA GOA LTD	SESA IN	INR	NEUTRAL	193.2	4.2	0.8	21.0%	45.1%		1.7	
VEDANTA RESOURCES	VED LN	GBP	Suspended	9.6	1.5	0.4	20.7%	37.6%		2.0	
HINDUSTAN ZINC	HZ IN	INR	NEUTRAL	111.5	8.6	1.5	16.9%	52.9%		6.5	
STERLITE INDUSTR	STLT IN	INR	BUY	105.2	5.2	0.7	13.1%	31.2%		3.3	
HINDALCO INDS	HNDL IN	INR	Not rated	124.8	6.7	0.8	9.7%	12.2%		4.2	

Source: Bloomberg consensus for not rated and suspended stocks, Nomura estimates, pricing as of Oct 4, 2011

# Scenario analysis: What if the US and Europe slip back into recession?

As the markets have been signaling that risks to our baseline forecasts are on the downside, our global economics team have considered a bear case economic scenario, most obviously triggered by a market meltdown, but the fragile state of the advanced economies leaves them vulnerable to unforeseen shocks or policy errors. For details, see Global Weekly Economic Monitor, 12 August 2011, and Global market turbulence: Implications for Asia, 9 August 2011.

The bear case scenario assumes:

The US and Euro area slip back into recession, with US GDP averaging -1% saar in 2H11 and Euro GDP averaging -3% before recovering to around 2% growth in 2012.

The CRB commodity price index falls 15% between now and year-end, but starts rising back again through 2012 reaching current levels by end-2012.

If there is a market meltdown and recessions in the US and euro area, we have no doubt that initially many economies in the region would be hit hard again in an echo of the global financial crisis, as non-linear effects start to kick in, notably financial decelerator effects, multiplier effects of weakening exports on domestic capex and jobs, and capital flight. However, less disturbing this time around are the two factors that there is less leverage in the financial system (less room for capital flight) and less chance of Asian trade finance drying up, as the world's central banks have most likely learnt the need to provide ample USD liquidity through FX swap arrangements.

In this scenario, we find Hong Kong, Singapore, Malaysia and Taiwan to be among the most vulnerable. But, as in 2009, we would expect that, over time, powerful tailwinds would develop, allowing Asia to bounce back before other regions. These tailwinds include a likely further decline in commodity prices and the ample room Asia has to ease monetary and fiscal policies – more so than any other region. In our bear case scenario, we would expect the Fed to resort to further quantitative easing, which once again would likely precipitate strong net capital inflows into Asia, attracted by stronger growth, superior fundamentals and higher interest rates relative to other regions.

What if things get even worse than we can foresee? Although our global economics team does not see such a situation as plausible at the moment, they have run an extreme-case scenario analysis to provide some perspective. This extreme scenario assumes:

US GDP averaging about -4% saar in 2H11 and Euro GDP averaging -6.5% before recovering to around 1% growth in 2012.

CRB commodity price index falls 40% between now and year-end, and stays at the lower level through 2012.

The table below summarises both the official bear case and the hypothetical extreme case scenarios.

**Fig. 20: Real GDP growth forecasts: baseline and downside scenarios**

	2011F			2012F		
	Base case	Bear case	Extreme case	Base case	Bear case	Extreme case
Australia	2	1.5	0.9	4.6	3.5	3.3
China	9.5	9	8.5	8.6	8.8	6
Hong Kong	5.4	4.4	3.4	4.5	4	1.2
India	7.7	7	6.5	7.9	7.6	7
Indonesia	6.5	6	4.8	7	6.8	4
Malaysia	4.7	4	1	5.1	4.8	-0.4
New Zealand	2.2	1.8	1.4	3.5	3.5	3.3
Philippines	5.1	4.7	3.3	5.7	5.3	2.4
Singapore	5.6	4.3	1.5	5.3	5.1	-1.8
South Korea	3.5	2.5	1.5	5	5	2.5
Taiwan	4.5	3.6	2.4	5	4.9	0.9
Thailand	4.1	3.5	0.6	4.7	4.5	-0.5
Vietnam	6.4	6	4.5	6.9	6.5	4.2
Asia ex Japan, Aus, NZ	7.9	7.2	6.4	7.6	7.6	5.1

Source: CEIC and Nomura Global Economics. Units: % y-o-y

The global bear case does not look bad for much of Asia and in fact is marginally better than the base case for China in 2012 because we would expect a V-shape rebound for the region thanks to the likely decline in commodity prices and the ample room Asia has to ease monetary and fiscal policies. We would also expect the Fed to resort to further quantitative easing, which once again would likely precipitate strong net capital inflows into Asia. In the extreme case, however, even these strengths will be tested.

## Sterlite – in better shape, but worse valuations

Sterlite Industries has undergone various changes during the past three years with power capacity of 1,200MW under operations and another 600MW under commissioning, a stronger zinc business and much stronger balance sheet.

Sterlite's biggest value contributor, Hindustan Zinc, is in a much better shape both operationally and balance sheet-wise compared to 2008-09. With ongoing expansion, silver would likely reach 10-12% of HZ's revenues by FY13F compared to 4-5% in FY08-09. Silver is less vulnerable to global growth concerns, in our view, and hence, should provide a support. At the same time, other income should increase to 20% of total earnings by FY12F, from close to 14% in FY08.

Sterlite has fully operational power capacity of 1,200MW with another 600MW under commissioning compared to all its power capacities under construction in FY08. At the same time, we see consolidated cash and equivalents likely close to INR220bn in FY12F compared to INR120bn in FY08-09. While we agree that some of its investments to group companies could be under pressure amid worsening macro conditions, we think the market is already discounting these loans.

## Scenario analysis

In the bear case, we have built in zinc and lead prices falling to an average USD1,800/t in FY12F (USD1,600/t in 2HFY12F) and USD1,700/t in FY13F. In the extreme case, we build in zinc lead prices averaging USD1,700/t in FY12F (USD1,400/t in 2HFY12F) and USD1,500/t in FY13F. We have built in USD2,000/t of aluminium prices in the bear case and USD1,800/t in the extreme case.

The power business should actually benefit from a fall in coal prices, in our view, as we do not expect any pressure on its PLF on account of demand issues.

**Fig. 21: Earnings and target price sensitivity for HZ**

(Currency)	Base case	Bear case	Downside %	Extreme case	Downside %
FY12F EPS	19.4	17.2	11.30%	16.4	15.50%
FY13F EPS	18.7	15.7	16.00%	13.7	26.70%
12-m target price	169	137	12.50%	120	25.00%

Note: Base case represents our current forecasts and TP

Source: Nomura estimates

# Appendix A-1

## Analyst Certification

I, Alok Kumar Nemani, hereby certify (1) that the views expressed in this Research report accurately reflect my personal views about any or all of the subject securities or issuers referred to in this Research report, (2) no part of my compensation was, is or will be directly or indirectly related to the specific recommendations or views expressed in this Research report and (3) no part of my compensation is tied to any specific investment banking transactions performed by Nomura Securities International, Inc., Nomura International plc or any other Nomura Group company.

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### Mentioned companies

Issuer name	Ticker	Price	Price date	Stock rating	Sector rating	Disclosures
Hindustan Zinc	HZ IN	INR 113	05-Oct-2011	Neutral	Not rated	
Sterlite Industries India Ltd	STLT IN	INR 104	05-Oct-2011	Buy	Not rated	

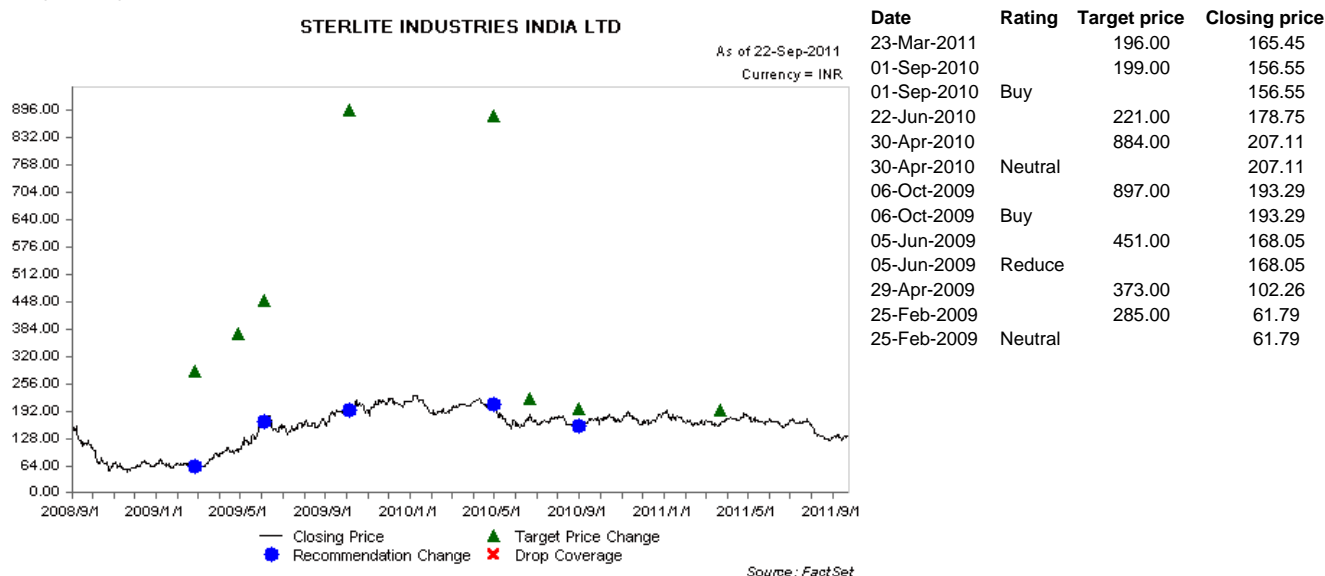
### Previous Rating

Issuer name	Previous Rating	Date of change
Hindustan Zinc	Buy	30-Apr-2010
Sterlite Industries India Ltd	Neutral	01-Sep-2010

### Sterlite Industries India Ltd (STLT IN)

INR 104 (05-Oct-2011) Buy (Sector rating: Not rated)

Rating and target price chart (three year history)



For explanation of ratings refer to the stock rating keys located after chart(s)

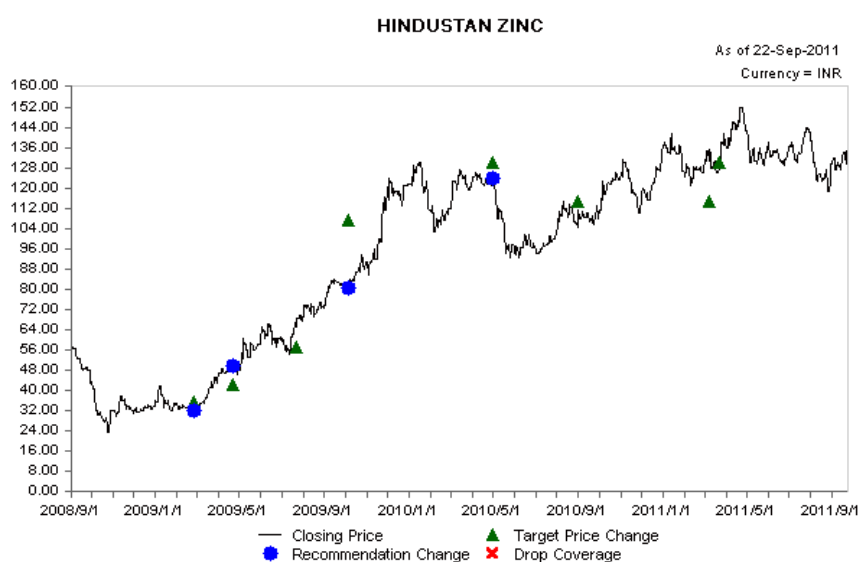
**Valuation Methodology** We value Sterlite Industries at INR169/share on a sum-of-the-parts basis. A stake in Hindustan Zinc contributes INR97.7/share at 10x FY13F EPS; overseas zinc assets contribute INR19.8/share based on DCF; the aluminium business (stakes in Balco and VAL) contribute INR4.6/share at 5x FY13F EV/EBITDA; the power business (SEL) contributes INR3.4/share using DCF; INR8.4/share is the contribution of the standalone copper business (8x FY13F P/E); and INR35/share comes from cash and investments.

**Risks that may impede the achievement of the target price** Key risks: 1) Weak metal prices 2) coal shortage worsens from here and 3) forays into new business areas

**Hindustan Zinc (HZ IN)**

**INR 113 (05-Oct-2011)** Neutral (Sector rating: Not rated)

Rating and target price chart (three year history)



Date	Rating	Target price	Closing price
23-Mar-2011		130.00	129.45
07-Mar-2011		115.00	130.75
01-Sep-2010		115.00	111.39
30-Apr-2010		130.30	124.08
30-Apr-2010	Neutral		124.08
06-Oct-2009		107.40	80.48
06-Oct-2009	Buy		80.48
23-Jul-2009		57.40	68.52
23-Apr-2009		42.20	49.99
23-Apr-2009	Reduce		49.99
25-Feb-2009		35.50	32.09
25-Feb-2009	Neutral		32.09

Source: FactSet

For explanation of ratings refer to the stock rating keys located after chart(s)

**Valuation Methodology** We value HZ at 10x FY13F EPS of INR12, or INR120/share.

**Risks that may impede the achievement of the target price** Upside risks: 1) Zinc prices are stronger than expected: We expect Zinc prices to remain around USD2,000/t. If prices are higher, there can be potential upside to our estimates. 2) Sale of the remaining stake by the Indian government: If the Indian government agrees to sell its remaining 24.5% stake in HZ to Sterlite, the company will be able to use its cash in a more productive way, in our view. We have not built this into our estimates. Downside risks: Implementation of the mining bill is a significant risk to all mining companies in India. If implemented in the current form, this may lead to significant downward revision in consensus estimates.

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