

Asia India

Resources Metals &amp; Mining

15 November 2010

# Hindustan Zinc

Reuters: **HZNC.BO** Bloomberg: **HZ IN** Exchange: **BSE** Ticker: **HZNC**

## Galvanizing growth; initiating with Buy

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### Earnings CAGR of 25% over FY10-12; initiating with a Buy

We initiate coverage on Hindustan Zinc (HZL) with a Buy rating and a target price of INR1,490. Our positive investment case is premised on (i) aggressive capacity expansions making HZL a leader in the global zinc market with a volume CAGR of 18% over FY10-12, (ii) Deutsche Bank's positive outlook for global zinc prices (CAGR of 16% over CY10-12), (iii) the company's sustained low cost positioning with captive access to high grade ore, and (iv) a strong net cash position, allowing HZL to pursue attractive inorganic growth opportunities, globally.

### Bullish zinc outlook key to our above-consensus estimates

Our earnings estimates for HZL are 20% and 15% above consensus for FY12 and FY13 respectively, primarily driven by Deutsche Bank's global commodities team's bullish outlook for zinc. We are also very positive on silver, in which HZL aims to become one of the largest integrated producers globally by FY13. Despite our conservative volume ramp-up assumptions for HZL's silver-rich Sindesar Khurd mine, the contribution of silver to the company's EBITDA is likely to increase from 7% in FY10 to 16% in FY13.

### Strong free cash flow generation to further fortify balance sheet

We forecast strong free cash flow generation for HZL over FY10-13 (FY12 FCF yield of 12%), backed by our positive outlook for global zinc prices, ramp-up in production from new capacities, and a major portion of the expenditure on capacity expansion already behind us. We believe strong cash flow generation should further fortify HZL's balance sheet, with net cash rising by 142% over FY10-FY13E to ~US\$6.3bn (INR674/share).

### Target price of INR1,490/share based on FY12E EV/EBITDA of 5.9x

We value HZL at a FY12E EV/EBITDA of 5.9x. Our target multiple implies a ~15% premium to the average valuation multiple over the last four years. We believe this is justified by improved visibility on commissioning of the company's new facilities, which should make it the world's largest integrated producer of zinc-lead. Risks: unexpected cost escalation; resource tax on mining profits (see p. 5).

#### Forecasts and ratios

Year End Mar 31	2009A	2010A	2011E	2012E	2013E
Sales (INRm)	56,802.7	80,169.7	<b>90,928.2</b>	121,666.4	133,394.8
EBITDA (INRm)	27,341.6	46,700.8	<b>48,742.5</b>	70,699.1	78,882.0
EBIT(INRm)	24,489	43,358	<b>44,206</b>	65,709	73,817
Reported NPAT (INRm)	27,276.1	40,414.1	<b>42,732.3</b>	63,065.6	73,399.5
DB EPS growth (%)	-38.0	48.2	<b>5.7</b>	47.6	16.4
DB EPS FD(INR)	64.55	95.65	<b>101.13</b>	149.26	173.71
PER (x)	7.1	9.1	<b>12.0</b>	8.1	7.0
EV/EBITDA (x)	3.6	5.3	<b>7.4</b>	4.2	2.9
DPS (net) (INR)	4.00	6.00	<b>6.27</b>	9.25	10.77
Yield (net) (%)	0.9	0.7	<b>0.5</b>	0.8	0.9

Source: Deutsche Bank estimates, company data

<sup>1</sup> DB EPS is fully diluted and excludes non-recurring items<sup>2</sup> Multiples and yields calculations use average historical prices for past years and spot prices for current and future years, except P/B which uses the year end close

Deutsche Bank AG/Hong Kong

All prices are those current at the end of the previous trading session unless otherwise indicated. Prices are sourced from local exchanges via Reuters, Bloomberg and other vendors. Data is sourced from Deutsche Bank and subject companies. Deutsche Bank does and seeks to do business with companies covered in its research reports. Thus, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision. DISCLOSURES AND ANALYST CERTIFICATIONS ARE LOCATED IN APPENDIX 1. MICA(P) 007/05/2010

Deutsche Bank

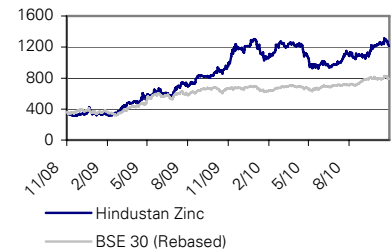


### Coverage Change

#### Buy

Price at 15 Nov 2010 (INR)	<b>1,211.50</b>
Price target - 12mth (INR)	<b>1,490.00</b>
52-week range (INR)	<b>1,310.05 - 924.45</b>
BSE 30	<b>20,157</b>

#### Price/price relative



Performance (%)	1m	3m	12m
Absolute	-0.2	8.4	31.4
BSE 30	0.2	11.0	19.6

#### Stock data

Market cap (INRm)	<b>511,859</b>
Market cap (USDm)	<b>11,440</b>
Shares outstanding (m)	<b>422.5</b>
Major shareholders	<b>Sterlite (64.9%)</b>
Free float(%)	<b>6</b>
Avg daily value traded (USDm)	<b>4.5</b>

#### Key indicators (FY1)

ROE (%)	<b>21.3</b>
Net debt/equity (%)	<b>-68.9</b>
Book value/share (INR)	<b>522.74</b>
Price/book (x)	<b>2.3</b>
Net interest cover (x)	<b>98.2</b>
Operating profit margin (%)	<b>48.6</b>

Model updated: 12 November 2010

**Running the numbers****Asia****India****Metals & Mining****Hindustan Zinc**

Reuters: HZNC.BO

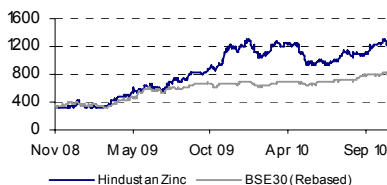
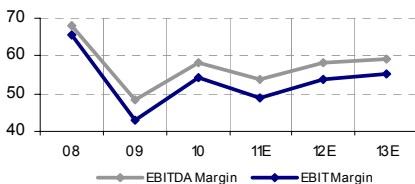
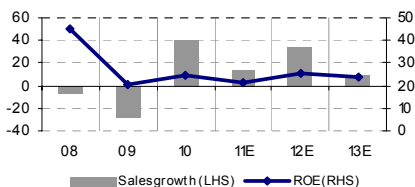
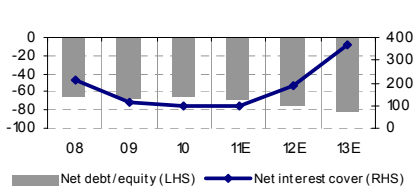
Bloomberg: HZ IN

**Buy**

Price (15 Nov 10)	INR 1,211.50
Target price	INR 1,490.00
52-week Range	INR 924.45 - 1,310.05
Market Cap (m)	INRm 511,859 USDm 11,440

**Company Profile**

Hindustan Zinc Limited (HZL) is the largest zinc and lead producer in India. Its principal products are refined zinc and lead metal. In addition, the company also produces silver and sulphuric acid as by products. HZL is among the world's lowest-cost producers of zinc due to its access to finest zinc mines.

**Price Performance****Margin Trends****Growth & Profitability****Solvency**

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Fiscal year end 31-Mar

**Financial Summary**

	2008	2009	2010	2011E	2012E	2013E
DB EPS (INR)	104.04	64.55	95.65	101.13	149.26	173.71
Reported EPS (INR)	104.04	64.55	95.65	101.13	149.26	173.71
DPS (INR)	5.00	4.00	6.00	6.27	9.25	10.77
BVPS (INR)	280.4	339.8	428.9	522.7	661.2	822.3
Weighted average shares (m)	423	423	423	423	423	423
Average market cap (INRm)	301,892	194,391	366,971	511,859	511,859	511,859
Enterprise value (INRm)	224,944	97,998	248,809	359,623	298,693	227,245

**Valuation Metrics**

P/E (DB) (x)	6.9	7.1	9.1	12.0	8.1	7.0
P/E (Reported) (x)	6.9	7.1	9.1	12.0	8.1	7.0
P/BV (x)	1.88	1.32	2.80	2.32	1.83	1.47
FCF Yield (%)	11.0	11.3	6.3	7.3	12.8	15.0
Dividend Yield (%)	0.7	0.9	0.7	0.5	0.8	0.9
EV/Sales (x)	2.9	1.7	3.1	4.0	2.5	1.7
EV/EBITDA (x)	4.2	3.6	5.3	7.4	4.2	2.9
EV/EBIT (x)	4.4	4.0	5.7	8.1	4.5	3.1

**Income Statement (INRm)**

<b>Sales revenue</b>	<b>78,778</b>	<b>56,803</b>	<b>80,170</b>	<b>90,928</b>	<b>121,666</b>	<b>133,395</b>
<b>Gross profit</b>	<b>55,275</b>	<b>28,778</b>	<b>48,150</b>	<b>50,382</b>	<b>72,591</b>	<b>80,873</b>
<b>EBITDA</b>	<b>53,784</b>	<b>27,342</b>	<b>46,701</b>	<b>48,742</b>	<b>70,699</b>	<b>78,882</b>
Depreciation	2,205	2,853	3,343	4,537	4,990	5,065
Amortisation	0	0	0	0	0	0
<b>EBIT</b>	<b>51,579</b>	<b>24,489</b>	<b>43,358</b>	<b>44,206</b>	<b>65,709</b>	<b>73,817</b>
Net interest income/(expense)	-242	-219	-439	-450	-350	-200
Associates/affiliates	0	0	0	0	0	0
Exceptionals/extraordinaries	0	0	0	0	0	0
Other pre-tax income/(expense)	8,516	9,312	7,222	9,000	12,500	17,000
<b>Profit before tax</b>	<b>59,853</b>	<b>33,582</b>	<b>50,141</b>	<b>52,756</b>	<b>77,859</b>	<b>90,617</b>
Income tax expense	15,893	6,306	9,727	10,024	14,793	17,217
Minorities	0	0	0	0	0	0
Other post-tax income/(expense)	0	0	0	0	0	0
<b>Net profit</b>	<b>43,961</b>	<b>27,276</b>	<b>40,414</b>	<b>42,732</b>	<b>63,066</b>	<b>73,400</b>
DB adjustments (including dilution)	0	0	0	0	0	0
<b>DB Net profit</b>	<b>43,961</b>	<b>27,276</b>	<b>40,414</b>	<b>42,732</b>	<b>63,066</b>	<b>73,400</b>

**Cash Flow (INRm)**

<b>Cash flow from operations</b>	<b>48,246</b>	<b>35,092</b>	<b>46,974</b>	<b>42,693</b>	<b>67,004</b>	<b>78,273</b>
Net Capex	-15,125	-13,166	-23,897	-5,520	-1,500	-1,500
<b>Free cash flow</b>	<b>33,121</b>	<b>21,926</b>	<b>23,076</b>	<b>37,173</b>	<b>65,504</b>	<b>76,773</b>
Equity raised/(bought back)	0	0	0	0	0	0
Dividends paid	-2,113	-1,690	-2,535	-2,649	-3,910	-4,551
Net inc/(dec) in borrowings	0	83	518	0	0	0
Other investing/financing cash flows	-19,292	-5,964	-40,203	0	0	0
<b>Net cash flow</b>	<b>11,717</b>	<b>14,355</b>	<b>-19,144</b>	<b>34,524</b>	<b>61,594</b>	<b>72,222</b>
Change in working capital	841	3,866	3,219	-4,576	-1,052	-192

**Balance Sheet (INRm)**

Cash and other liquid assets	76,938	96,462	118,749	152,822	213,752	285,200
Tangible fixed assets	41,626	52,133	72,771	73,754	70,264	66,698
Goodwill/intangible assets	0	0	0	0	0	0
Associates/investments	14	18	18	18	18	18
Other assets	13,489	10,647	10,677	15,035	18,572	19,921
<b>Total assets</b>	<b>132,067</b>	<b>159,261</b>	<b>202,215</b>	<b>241,629</b>	<b>302,606</b>	<b>371,838</b>
Interest bearing debt	4	87	605	605	605	605
Other liabilities	13,581	15,598	20,370	20,152	22,638	23,795
<b>Total liabilities</b>	<b>13,585</b>	<b>15,685</b>	<b>20,975</b>	<b>20,757</b>	<b>23,243</b>	<b>24,400</b>
Shareholders' equity	118,482	143,576	181,240	220,872	279,363	347,438
Minorities	0	0	0	0	0	0
<b>Total shareholders' equity</b>	<b>118,482</b>	<b>143,576</b>	<b>181,240</b>	<b>220,872</b>	<b>279,363</b>	<b>347,438</b>
Net debt	-76,935	-96,375	-118,144	-152,218	-213,147	-284,596

**Key Company Metrics**

Sales growth (%)	-8.0	-27.9	41.1	13.4	33.8	9.6
DB EPS growth (%)	-1.0	-38.0	48.2	5.7	47.6	16.4
EBITDA Margin (%)	68.3	48.1	58.3	53.6	58.1	59.1
EBIT Margin (%)	65.5	43.1	54.1	48.6	54.0	55.3
Payout ratio (%)	4.8	6.2	6.3	6.2	6.2	6.2
ROE (%)	45.1	20.8	24.9	21.3	25.2	23.4
Capex/sales (%)	19.2	23.2	29.8	6.1	1.2	1.1
Capex/depreciation (x)	6.9	4.6	7.1	1.2	0.3	0.3
Net debt/equity (%)	-64.9	-67.1	-65.2	-68.9	-76.3	-81.9
Net interest cover (x)	213.4	111.9	98.7	98.2	187.7	369.1

Source: Company data, Deutsche Bank estimates

# Investment thesis

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## Outlook

Our Buy rating and positive investment case for Hindustan Zinc is premised on (i) the company's aggressive capacity expansions in zinc-lead allowing it to achieve global scale efficiencies and elevating it to a leadership position in the global zinc market, with a volume CAGR of 18% over FY10-12; (ii) our positive outlook for global Zinc prices, driven by increasing financial demand and zinc capacity shutdowns in China (our global commodities team expects LME zinc prices to rise at a CAGR of 16% over CY10-12); (iii) HZL's sustained low cost positioning, with access to high grade zinc ore from captive mines providing it a unique competitive advantage; and (iv) a strong net cash position (FY11E net cash of US\$3.4bn) allowing the company to pursue attractive inorganic growth opportunities, globally. We forecast Hindustan Zinc's earnings to grow at a CAGR of 25% over FY10-12 with EBITDA margins expanding by 450bps in FY12 to 58%. We rate the stock a Buy with a target price of INR1,490/share, implying 23% upside potential from current levels.

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## Valuation

We value the company at an FY12E EV/EBITDA of 5.9x, which leads to a target price of INR1,490/share. Our target multiple implies a ~15% premium to the average valuation multiple at which the stock has traded over the past four years. We believe that this premium is justified as there is high degree of visibility on the timely commissioning of the company's new zinc and lead facilities, which will make Hindustan Zinc the world's largest integrated producer of zinc-lead. At our target price the stock would trade at a 50-60% premium to its global peers, which is in line with the premium at which the stock has traded over the past one year. We believe that this premium is justified by Hindustan Zinc's attractive cost structure and captive access to high quality zinc reserves, and India's move into its strongest ever period of materials-intensive growth.

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## Risks

A sustained increase in the cost of production on account of deterioration in the grade of ore/higher stripping costs; profit sharing proposal in new regulation by the government of India; risks related to environmental claims and damages/ regulatory approvals for new mines; appreciation of INR vs USD.

# Investment summary

## From domestic market dominance to global leadership

After sustained dominance of India's domestic zinc market (94% of India's zinc production in FY10), Hindustan Zinc (HZL) is putting in place the strategic architecture to firmly establish its leadership on the global arena and achieve its vision of global scale efficiencies. An aggressive organic growth strategy should allow HZL to further leverage its core competency and low cost positioning in zinc mining and refining. HZL is on track to take its combined zinc and lead capacity up to 1.064m tonnes by CY10-end, which would elevate its position to the world's largest integrated zinc-lead producer. By virtue of its low-cost status (in both mining and smelting) and our positive outlook for global zinc prices, we expect the undergoing expansions in zinc to be highly value accretive. Capacity expansion and stabilization of new facilities are likely to drive a volume CAGR of 18% over FY10-12, resulting in earnings CAGR of 25%.

## Bullish on zinc: financial demand and change in consumption patterns in China key drivers

Our positive investment case for the stock is underpinned by Deutsche Bank's global commodities team's bullish outlook for global zinc prices. Despite the recent outperformance of zinc with respect to the other non-ferrous metals, we continue to believe that increasing financial demand in the zinc market and improved supply-demand equation on account of production cuts and structural changes in consumption patterns in China could continue to provide support to global zinc prices.

**Figure 1: Deutsche Bank global zinc price forecasts**

(US\$/tonne)	2009	2010E	2011E	2012E
Zinc	1,662	2,124	2,535	2,866
YoY change (%)		28%	19%	13%

Source: Deutsche Bank, Bloomberg Finance LP

## Low production costs provide a sustainable competitive advantage

The foundations of Hindustan Zinc's vision to create facilities of global scale rest on its core competency of low costs. A continued focus on costs and the strategic intent to be the world's lowest-cost producer are among the pillars of HZL's overriding business philosophy. Captive mining has allowed the company to sustain its low cost of operations and emerge as one of the most cost efficient producers of zinc on a global scale, with an average EBITDA margin of ~60% over the past five years. Cash costs for mining operations at two of its major mines, which constitute 54% of company's total reserves and resources, lie in the lowest quartile of the global cost curve. Nevertheless, we note that there has been an unexpected increase in operating costs in 1H'FY11, which we have incorporated in our forecasts.

## Improving by-products outlook provides the "silver" lining

The outlook for HZL's key by-products – sulphuric acid and silver – has improved significantly since the beginning of 2010. We believe the contribution of silver to HZL's EBITDA is likely to increase to 16% in FY13 vs 7% in FY10 as production ramps up at HZL's silver-rich Sindesar Khud mine. Our global commodities team remains positive on the outlook for silver, driven by an improving outlook for the industrial component of its demand and demand from China.

**Figure 2: Deutsche Bank global silver price forecasts**

(USD/oz)	2009	2010E	2011E	2012E
Silver	14.72	19.1	24.25	28
YoY change (%)		30%	27%	15%

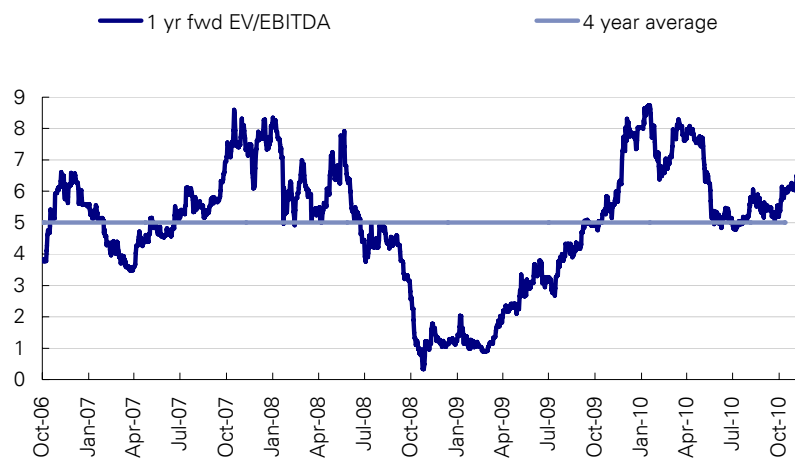
Source: Deutsche Bank, Bloomberg Finance LP

# Valuation

## Target price based on FY12E EV/EBITDA of 5.9x

Our target price of INR1,490/share is based on FY12E EV/EBITDA of 5.9x. Our target multiple implies a ~15% premium to the average valuation multiple at which the stock has traded over the last four years. We believe that this premium is justified as there is a high degree of visibility on the timely commissioning of company's new zinc and lead facilities, which will make Hindustan Zinc the world's largest integrated producer of zinc-lead.

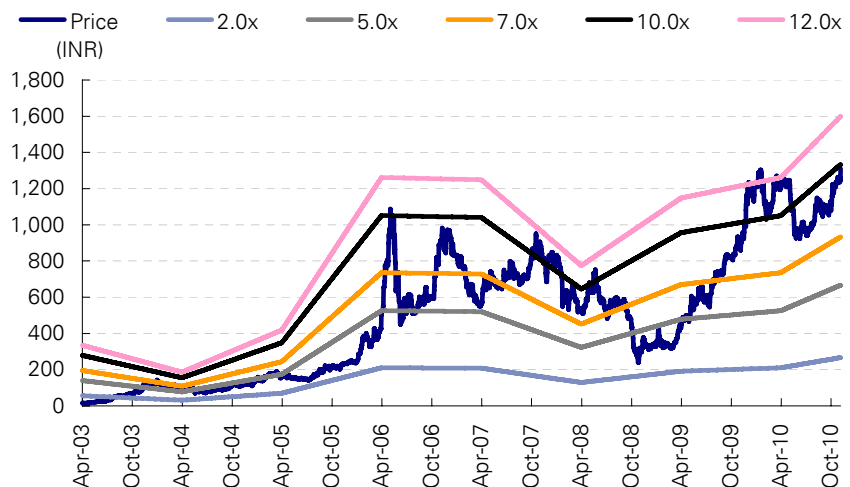
**Figure 3: EV/EBITDA trend over the last four years**



Source: Deutsche Bank, Bloomberg Finance LP

At our target price, Hindustan Zinc would trade at an FY12E PER of 10x, which implies a 25% premium to the average multiple at which the stock has traded over the past four years. This valuation premium is well supported by earnings CAGR of 25% over FY10-12, as per our forecasts. The valuation looks much more attractive considering that HZL is likely to have INR505/share (40% of current stock price) of net cash on its balance sheet by FY12-end.

**Figure 4: Hindustan Zinc – PER(x) chart**



Source: Deutsche Bank, Bloomberg Finance LP

## Premium to global peers justified by superior margins and low cost positioning

High quality ore from HZL's captive mines meets 100% of company's zinc ore requirements and provides HZL with a sustainable low cost advantage. In addition, its dominant position in the high growth domestic zinc market also offers HZL a unique position in the global zinc landscape, allowing it to deliver much better profitability and return metrics than its global peers. Thus, we argue for a valuation premium for Hindustan Zinc relative to its global peers given the sustainability of its low cost positioning leading to superior margins and return ratios.

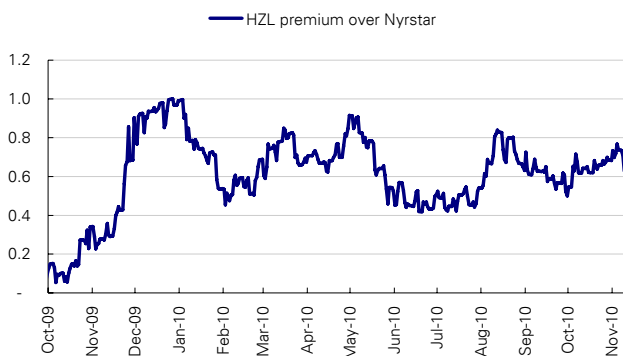
**Figure 5: HZL has reported profitability metrics on a sustainable basis**

	EBITDA margins (%)			EBIT margins (%)			ROE (%)			ROCE (%)		
	Boliden	Nyrstar	HZL	Boliden	Nyrstar	HZL	Boliden	Nyrstar	HZL	Boliden	Nyrstar	HZL
FY07	27.9	15.7	75.0	24.2	13.7	73.0	47.5	19.0	80.3	35.38	14.3	102.8
FY08	20.5	14.3	68.3	16.3	12.4	65.5	26.1	20.3	45.1	18.74	19.0	51.0
FY09	7.8	6.1	48.1	3.2	2.8	43.1	6.4	-54.5	20.8	4.40	10.4	18.0
FY10	18.8	5.0	58.3	13.1	1.9	54.1	15.4	4.1	24.9	9.99	2.7	25.6
FY11E	19.6	8.4	54.4	14.3	5.6	49.5	19.2	12.7	22.0	12.30	10.1	22.1
FY12E	23.0	12.7	58.9	18.2	10.2	54.9	24.8	36.5	25.5	17.20	19.6	25.9
FY13E	24.9	17.2	60.0	20.9	15.2	56.2	29.2	48.1	23.4	22.74	29.1	23.1

Source: Deutsche Bank, Company data

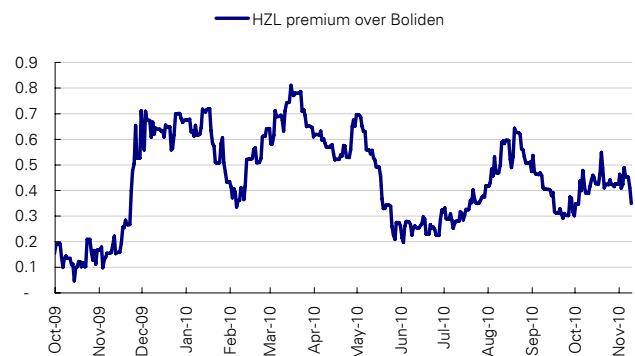
Though the valuation premium of Hindustan Zinc to both Nyrstar and Boliden has been quite volatile historically, over the last one year Hindustan Zinc has traded at sustained high valuation multiple premiums to both its peers, at a 65% average premium over Nyrstar and 50% average premium over Boliden. At our target price for Hindustan Zinc, it would trade at similar premiums to its respective peers.

**Figure 6: EV/EBITDA – HZL has traded at a 65% premium to Nyrstar over the last one year**



Source: Deutsche Bank, Bloomberg Finance LP

**Figure 7: EV/EBITDA – HZL has traded at a 50% premium to Boliden over the last one year**

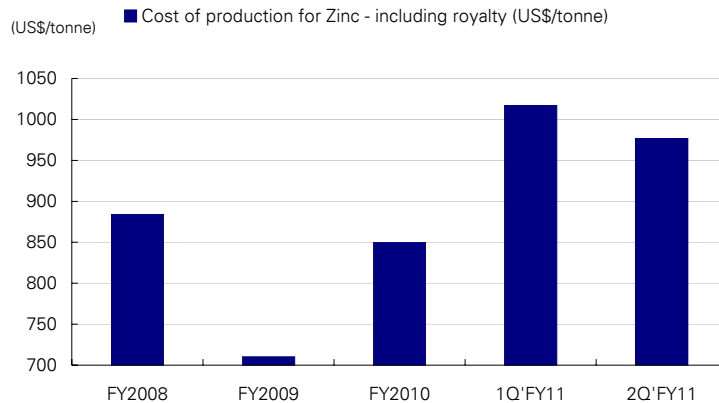


Source: Deutsche Bank, Bloomberg Finance LP

## Risks

### Sustained increase in cost of production on account of deterioration in grade of ore/higher stripping costs

Hindustan Zinc owns some of the best zinc mines in the world. As the company keeps mining at increasing depth, there is a risk of deterioration in the grade of ore, which could lead to higher cost of production at its mines. Also, during 1H'FY11 cost of production rose on account of a higher stripping ratio at its existing mines and employee provisioning towards increased gratuity payments. With the one-offs behind us, management has guided for a gradual reduction in cost in 2H'FY11 as new facilities stabilize.

**Figure 8: 1H'FY11 – Costs increased on account of higher stripping costs and provisions**

Source: Deutsche Bank, Company data

### Profit sharing proposal in new regulation by the government of India

The government of India is in the process of finalizing its new Mines and Minerals Development and Regulation (MMDR) Act, which proposes to introduce a profit sharing arrangement between the resource companies in India and the people or inhabitants impacted by the land acquisition process. As per the current proposal, the government intends to levy a 26% resource tax on the “mining” profits of companies with captive mines in India. We await further details from the government on the implementation modalities of this resource tax and the calculation of mining profits for fully integrated firms, and have not yet incorporated the impact of such a tax in our forecasts. There is likely to be a downside risk to our estimates as and when the proposed tax is finalized by the government.

### Risks related to environmental claims and damages/ regulatory approvals for new mines

HZL mines its own ore for supply to its smelters. While captive mining offers the firm a sustainable cost advantage, it also exposes the firm to litigation and damage claims for pollution or environmental damage related to mining activities. Further, the Indian government has become very cautious in providing environment approvals and clearances for new mines. Though HZL is comfortably placed, with sufficient R&R to cater to its raw material requirements over the next 25-30 years, any delay in securing the regulatory approvals for new mining deposits could hamper management’s ability to add to its reserves.

### Appreciation of INR vs USD

Hindustan Zinc (and other commodity firms in India) benchmarks its selling price to landed costs of the respective metals. With the continued FII inflows into India, there is a risk of an appreciation of INR vs USD, which could affect realizations for HZL and could have an adverse earnings impact. Our calculations suggest an FY12 earnings impact of 7% for every 5% appreciation in domestic currency vs USD.

### Sustained sale of zinc in the markets by China’s State Reserve Bureau

As per recent news flow (Bloomberg), China’s State Reserve Bureau (SRB) is looking to offload ~50,000 tonnes of zinc metal from its inventory into the open market. While this one-off sale is likely to lead to only temporary weakness (if any), if the sale of zinc by the SRB were to continue, it could prove to be a key overhang for global zinc prices, keeping sentiment and metal prices subdued over the short-to-medium term.

# Global peer valuation

**Figure 9: Non-ferrous – Global peer valuation**

Company	Year end	Rating	Currency	Price	Target price	Mkt cap	PER(x)	EV / EBITDA		P / BV		P / CFPS		Dividend Yield	
				12-Nov-10		USD bn	FY11E	FY12E	FY11E	FY12E	FY11E	FY12E	FY11E	FY12E	FY12E (%)
<b>Diversified</b>							11.1	8.0	7.8	5.1	2.4	1.9	7.8	5.8	1.3
Bhp Billiton Ltd	30-Jun	Buy	AUD	44.3	47.5	247.2	11.8	9.5	6.7	5.3	3.5	2.8	11.1	8.8	2.2
Rio Tinto Ltd	31-Dec	Buy	AUD	86.9	91.2	168.7	12.0	11.3	6.9	6.3	3.2	2.6	10.4	8.4	1.2
Sterlite Industries	31-Mar	Buy	INR	181.8	200.0	14.0	10.0	7.3	7.4	5.3	1.4	1.2	5.7	4.2	0.4
Vedanta Resources	31-Mar	Hold	GBP	2,264.0	2,150.0	9.8	10.1	5.1	11.3	4.5	2.1	1.5	4.1	1.5	1.6
Xstrata	31-Dec	Buy	GBP	1,380.5	1,605.0	64.7	11.6	7.0	6.9	4.2	1.8	1.4	7.6	6.1	0.9
<b>Aluminum</b>							41.4	11.7	20.8	5.2	1.5	1.4	17.0	11.6	1.9
Alcoa	31-Dec	Hold	USD	13.5	14.0	13.9	68.3	9.8	9.3	5.5	1.0	0.9	7.2	5.1	0.9
Alumina	31-Dec	Hold	AUD	2.1	2.0	5.1	57.9	14.8	60.5	5.6	1.8	1.7	41.5	14.8	1.9
Enrc Plc	31-Dec	Buy	GBP	965.5	1,315.0	20.1	10.2	6.5	6.1	4.0	2.1	1.7	9.8	6.0	3.1
Norsk Hydro Asa	31-Dec	Hold	NOK	38.6	36.6	13.2	29.1	15.7	7.4	5.8	1.1	1.5	9.4	20.5	1.6
<b>Copper</b>							15.1	9.5	7.3	4.6	4.1	3.4	11.1	7.9	4.1
Antofagasta Plc	31-Dec	Hold	GBP	1,432.0	1,000.0	22.8	21.3	14.9	8.2	4.7	3.7	3.1	12.4	7.6	2.2
Freeport-Mcmoran	31-Dec	Hold	USD	103.9	95.0	49.3	12.4	9.9	5.5	4.5	3.9	3.0	7.4	6.8	1.9
Grupo Mexico	31-Dec	Hold	MXN	41.8	40.0	26.6	16.2	8.5	7.1	4.1	4.2	3.1	8.5	5.7	3.0
Kazakhmys Plc	31-Dec	Hold	GBP	1,498.0	1,444.0	13.0	10.5	6.4	6.4	4.4	1.8	1.6	13.5	12.4	1.5
Southern Copper	31-Dec	Buy	USD	44.1	46.0	37.5	23.2	12.0	12.6	7.0	9.1	8.0	19.1	10.0	6.7
<b>Zinc</b>							12.6	6.1	6.5	3.8	1.9	1.5	10.8	6.4	4.2
Boliden Ab	31-Dec	Hold	SEK	122.5	88.9	4.9	10.1	6.7	6.1	4.1	1.8	1.5	10.0	5.5	4.9
Nyrstar Nv	31-Dec	Buy	EUR	11.2	12.0	1.5	15.1	5.5	6.8	3.5	2.0	1.5	11.6	7.3	3.6
Hindustan Zinc	31-Mar	Buy	INR	1210.0	1490.0	14.0	12.0	8.1	7.4	4.2	2.3	1.8	12.0	7.63	0.8
<b>Global</b>							20.1	8.8	10.6	4.7	2.5	2.1	11.7	7.9	2.9

Source: Deutsche Bank



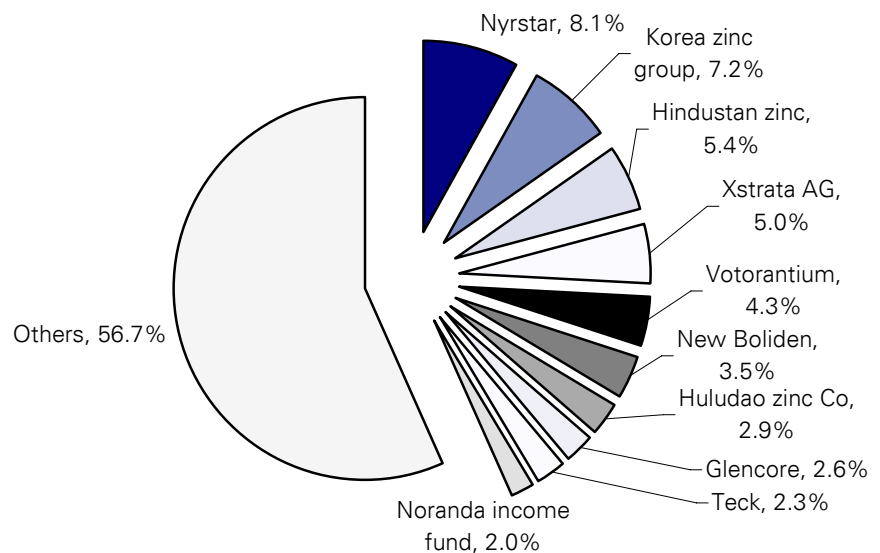
# Investment argument

Our positive investment case for Hindustan Zinc is premised on (i) the company's aggressive capacity expansions in zinc-lead allowing it to achieve global scale efficiencies and elevating it to a leadership position in the global zinc market with a volume CAGR of 18% over FY10-12, (ii) our positive outlook for global zinc prices, driven by increasing financial demand and zinc capacity shutdowns in China, (iii) HZL's sustained low cost positioning, with access to high grade zinc ore from captive mines providing it a unique competitive advantage. We believe these factors should drive earnings CAGR of 25% over FY10-12, underpinning our positive view on the stock.

## From domestic market dominance to global leadership

After sustained dominance of India's domestic zinc market (94% production market share in FY10), Hindustan Zinc (HZL) is putting in place the strategic architecture to firmly establish its leadership in the global arena and achieve its vision of global scale efficiencies. Aggressive expansion plans by HZL should allow it to further leverage its core competency and low cost positioning in zinc mining and refining. HZL is on track to take its combined zinc and lead capacity up to 1.064m tonnes by CY10-end, which would elevate its position to the world's largest integrated zinc-lead producer. By virtue of its low-cost status (both mining and smelting costs at HZL are among the lowest in the world) and our positive outlook for global zinc prices, we expect the expansions it is undergoing in zinc to be highly value accretive. We firmly believe that the company's aggressive volume expansions in zinc (ahead of India's jump into its strongest materials-intensive growth period) will allow it to create a sustainable first-mover advantage as a local company with global scale.

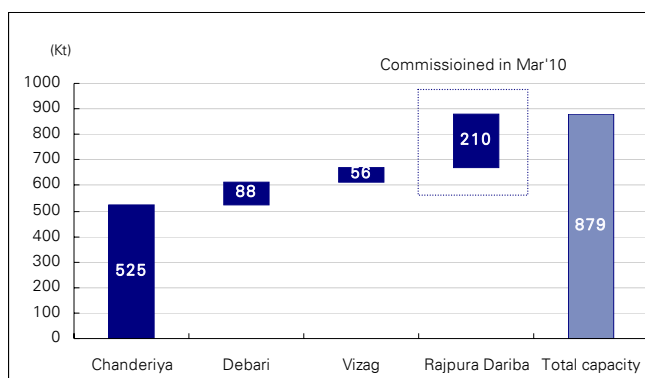
**Figure 10: Current snapshot of global Zinc market – Share of producer companies**



Source: Deutsche Bank, ILZSG

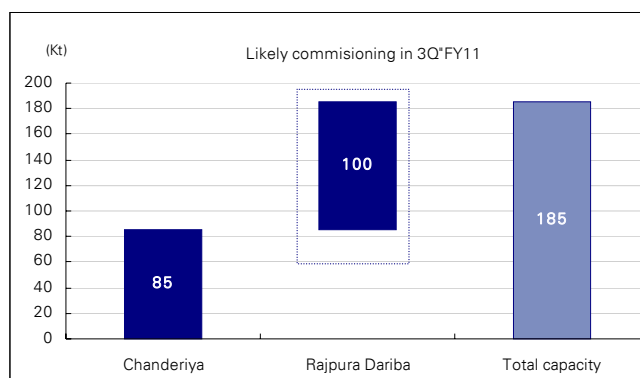
### Capacity expansions to drive 18% volume CAGR over FY10-12

**Figure 11: Hindustan Zinc – Zinc capacities**



Source: Deutsche Bank, Company data

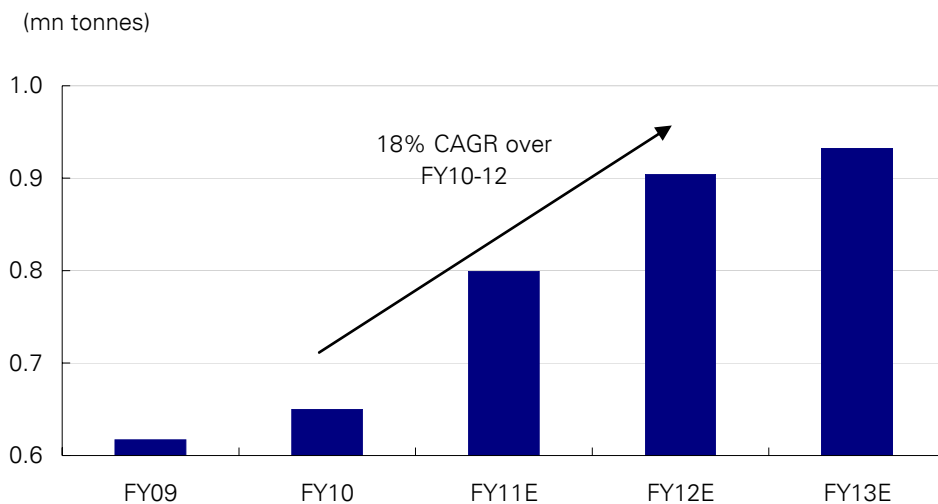
**Figure 12: Hindustan Zinc – Lead capacities**



Source: Deutsche Bank, Company data

We believe the capacity expansions HZL is undergoing in zinc/lead and stabilization of the new facilities should not only firmly establish its leadership on a global scale but also drive a volume CAGR of 18% over FY10-12. With the successful commissioning of a 210ktpa Hydro-Zinc smelter and 1 mtpa concentrator in March 2010, and 100kt lead smelter on track to be commissioned by 3Q'FY11, we remain confident that management can achieve its capacity expansion targets and meet our volume growth expectations. The recently commissioned Hydro-Zinc smelter has already achieved capacity utilization rates of 75% in 2Q'FY11.

**Figure 13: Capacity expansions and stabilization of new capacities to drive volume growth over FY10-12**



Source: Deutsche Bank, Company data

### Financial demand and changing consumption patterns in China to drive zinc price performance

Our positive investment case for the stock is underpinned by Deutsche Bank's global commodities team's bullish outlook for global zinc prices. Despite the outperformance of zinc with respect to the other non-ferrous metals, we continue to believe that the increasing financial demand in the zinc market and improved supply-demand equation on account of

production cuts and structural change in consumption patterns in China could continue to provide support to global zinc prices. **Please refer to the Section “Zinc – Remain bullish” on page 16 for more details.**

**Figure 14: Deutsche Bank global industrial metals price forecasts**

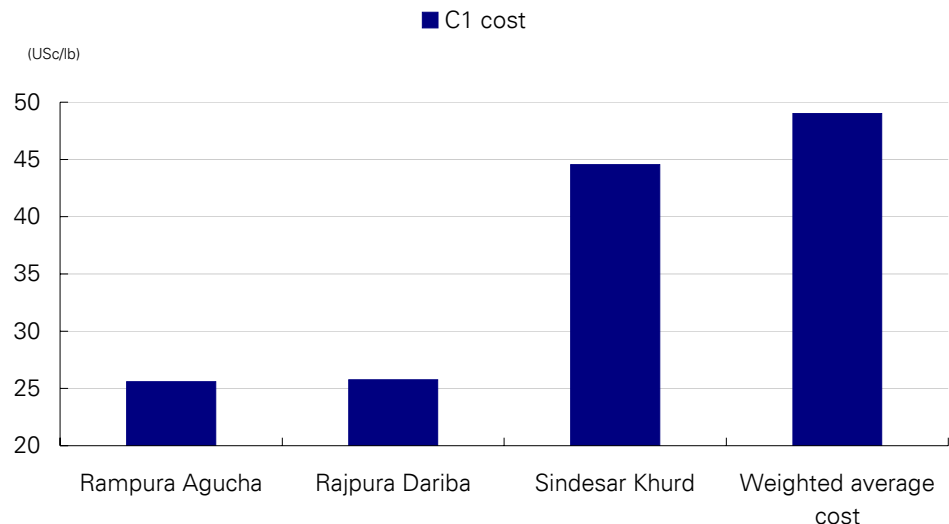
(US\$/tonne)	CY2009	CY2010E	CY2011E	CY2012E	CY2013E
<b>Zinc</b>	<b>1662</b>	<b>2124</b>	<b>2535</b>	<b>2866</b>	<b>2205</b>
YoY change (%)		28%	19%	13%	-23%
<b>Lead</b>	<b>1726</b>	<b>2119</b>	<b>2425</b>	<b>2646</b>	<b>1984</b>
YoY change (%)		23%	14%	9%	-25%

Source: Deutsche Bank, Bloomberg Finance LP

### Low production costs provide foundation for high profitability and a sustainable competitive advantage

The foundations of Hindustan Zinc’s vision to create facilities of global scale rest on its core competency of low costs. A continued focus on costs and the strategic intent to be the world’s lowest-cost producer are among the pillars of HZL’s overriding business philosophy. In the zinc business, the company is already among the world’s lowest-cost producers with access to Rampura Agucha mine, one of the finest zinc mines globally. Captive mining has allowed the company to sustain its low cost of operations and emerge as one of the most cost efficient producers of zinc on a global scale, with an average EBITDA margin of ~60% over the last five years. Cash costs for mining operations at two of its major mines, which constitute 54% of company’s total reserves and resources, lie in the lowest quartile of the global cost curve.

**Figure 15: Cost competitiveness of HZL operations (C1 cost in US\$/lb)**



Source: Deutsche Bank commodities research

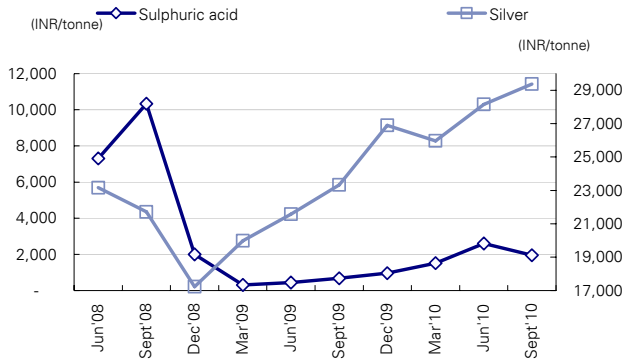
### Cost escalation in 1H’FY11 due to one-offs; costs to go down gradually in 2HFY’11

Hindustan Zinc’s global cost competitiveness during 1H’FY11 has been adversely impacted by additional gratuity provisions, an increase in stripping costs at its mines due to deterioration in grade of ore, and temporary production disruptions at existing facilities due to water shortages. During our interactions with the company, management maintained that the long-term grade of its mines remains intact and the ore deterioration is a temporary phenomenon. Further, with the water shortage problems now behind us, we expect a gradual decline in production costs in 2H’FY11 as the new capacities stabilize, leading to

improvements in capacity utilization and by-product realizations. Nevertheless, we have been conservative in our forecasts and have assumed flat costs for 2H'FY11. If management is able to deliver on its cost savings initiatives there could be an upside risk to our estimates.

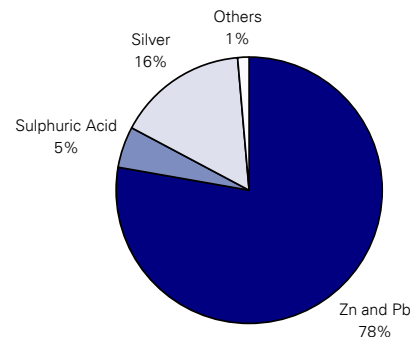
### Improving by-products outlook provides the “silver” lining

**Figure 16: By-product realization trend over past 10 quarters**



Source: Deutsche Bank, Company data

**Figure 17: FY13 - EBITDA contribution from by-products to increase to 21%**



Source: Deutsche Bank, Company data

The outlook for HZL’s key by-products – sulphuric acid and silver – has improved significantly since the beginning of 2010. LME silver is up 66% YTD and our global commodities team remains very positive on the outlook for silver. As global economic growth momentum returns, silver should benefit from the industrial component of its demand. Meanwhile, there are additional avenues of incremental demand emerging around the world. China has moved from a net exporter of silver to net importer. Our team believes that increased net imports are a function of both rising industrial consumption and the emergence of retail investment demand since mid-2009. We believe there is a strong likelihood that net imports hit record highs this year. The outlook for sulphuric acid has also improved significantly over the last 12 months, as reflected in quarterly realization trends.

**Figure 18: Deutsche Bank global silver price forecasts**

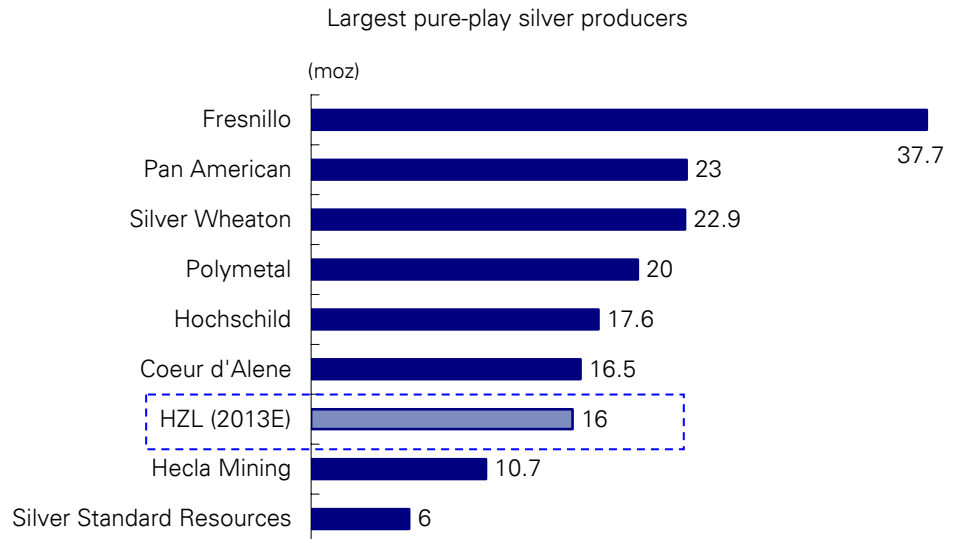
	2009	2010E	2011E	2012E	2013E
Silver	14.72	19.1	24.25	28	20
YoY change (%)		30%	27%	15%	-29%

Source: Deutsche Bank, Bloomberg Finance LP

### Management aims to expand silver capacity to 500 tonnes by FY2013

Management is targeting an aggressive volume ramp-up in its silver business, backed by the supply of silver-rich ore from its Sindesar Khurd mine. While management is guiding for a silver capacity of 500 tonnes (16moz) by FY2012 end (making it one of the Top-10 pure-play silver producers globally), we have been conservative in our forecasts and factored in delays due to unforeseeable circumstances. We have assumed silver sales of 330 tonnes in FY13, thus leaving room for upside as and when visibility on the silver volume ramp-up improves.

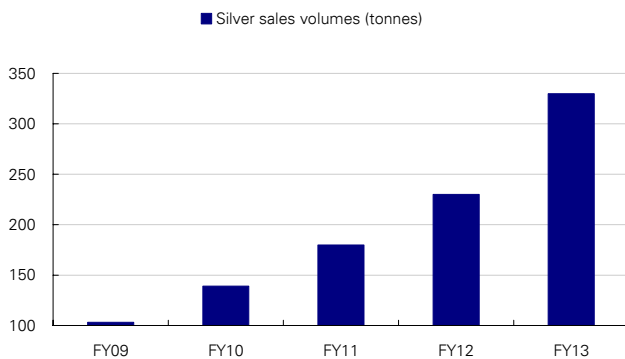
**Figure 19: Hindustan Zinc – Management aims to take silver capacity to 6moz by FY12 end**



Source: Deutsche Bank, company data

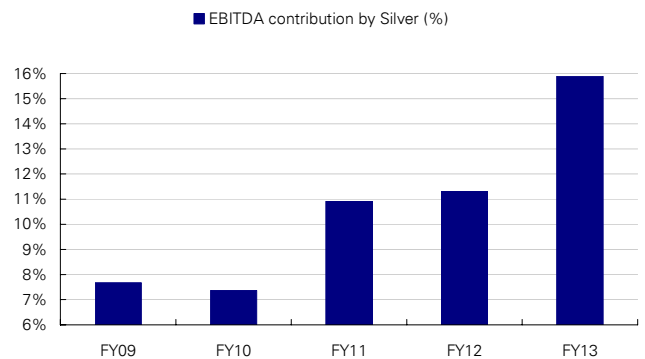
Despite our conservative assumptions on volume ramp-up in the silver business, we estimate the EBITDA contribution from this product line is likely to increase to 16% in FY13 from only a 7% contribution in FY10.

**Figure 20: Silver sales volumes trend**



Source: Deutsche Bank, Company data

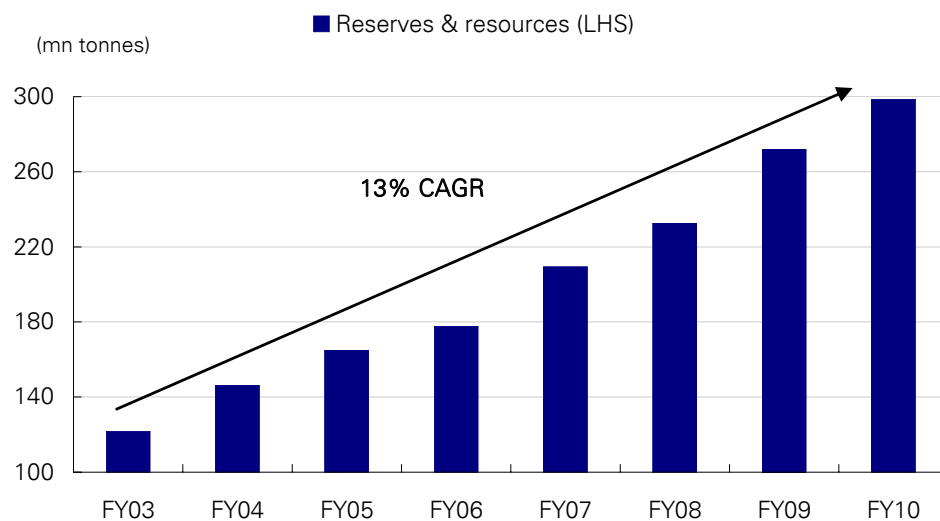
**Figure 21: EBITDA contribution from silver likely to increase to 16% by FY13**



Source: Deutsche Bank, Company data

### Management focus on resource accretion to support global scale ambitions

Management’s unwavering focus on exploration and its new mine development program has led to substantial accretion to the company’s reserves and resources (R&R) over the past six years, with an average addition of 25.4m tonnes (net of production) of R&R on an annual basis. The company’s R&R have more than doubled over FY04-10, taking total reserves and resources to 298.6m tonnes (as on 31 March 2010). We find comfort in HZL’s continued exploration efforts, including the exploration it is undergoing on 10 Reconnaissance Permits, which are likely to add further to its already comfortable R&R position in the future.

**Figure 22: Reserves and resources**

Source: Deutsche Bank, Company data

**Deutsche Bank earnings estimates ahead of consensus**

Our earnings estimates for HZL are 20% and 15% above consensus for FY12 and FY13 respectively, primarily driven by our bullish outlook on global zinc prices.

**Figure 23: Deutsche Bank estimates vs consensus**

	FY12			FY13		
	DBe	Consensus	Variation	DBe	Consensus	Variation
Net sales	121,666	107,866	13%	133,395	120,923	10%
EBITDA	70,699	62,629	13%	78,882	74,277	6%
Net profit	63,066	52,368	20%	73,400	63,829	15%
<b>EPS</b>	<b>149</b>	<b>124</b>	<b>20%</b>	<b>174</b>	<b>151</b>	<b>15%</b>

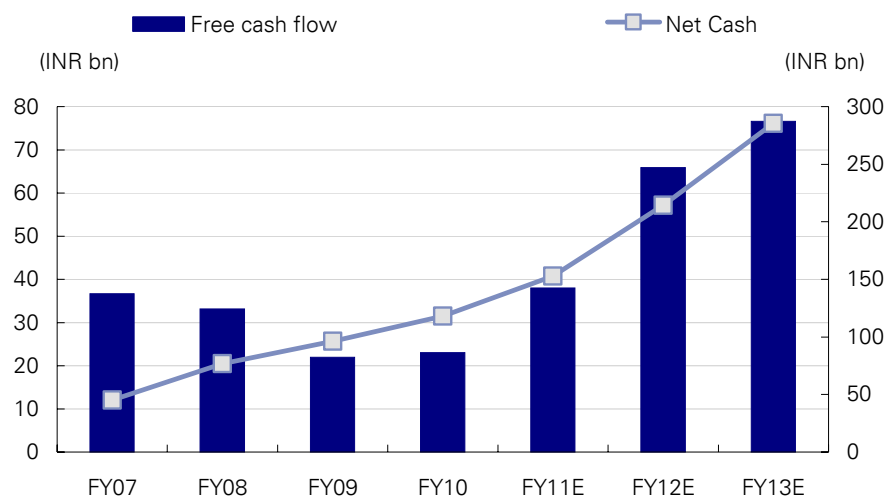
Source: Deutsche Bank, Bloomberg Finance LP

# Financial analysis

## Strong cash flow generation to further fortify balance sheet

We forecast strong free cash flow generation for HZL over FY10-13, backed by our positive outlook for global zinc prices, ramp up in production from new capacities leading to 18% volume CAGR over FY10-12, and the majority of expenditure on capacity expansion already behind us. We believe strong cash flow generation should further fortify HZL's balance sheet, with net cash on the balance sheet rising 142% over FY10-FY13.

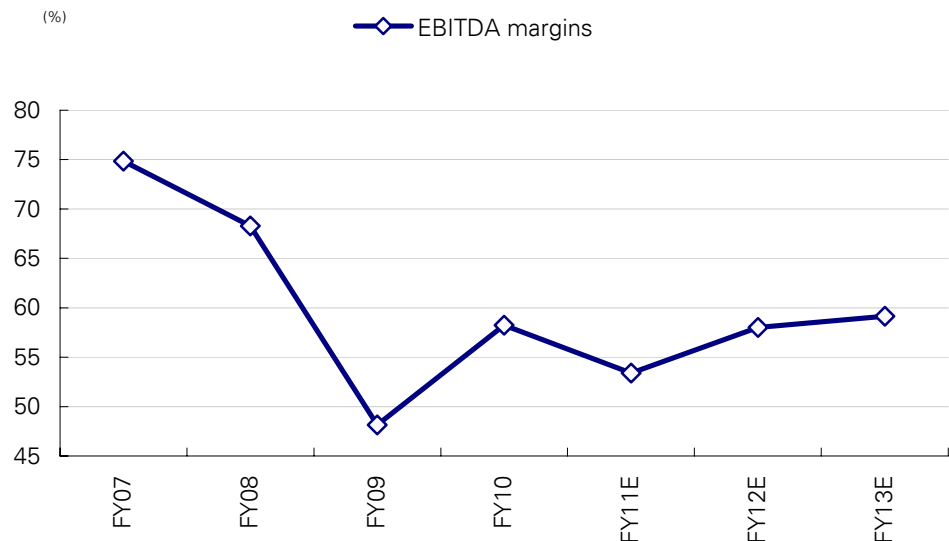
**Figure 24: Strong zinc pricing and volume growth to drive strong free cash flow generation**



Source: Deutsche Bank, Company data

## Profitability metrics to improve over FY11-13

**Figure 25: EBITDA margins to expand by 576bps over FY11-13**



Source: Deutsche Bank, Company data

# Zinc – Still bullish

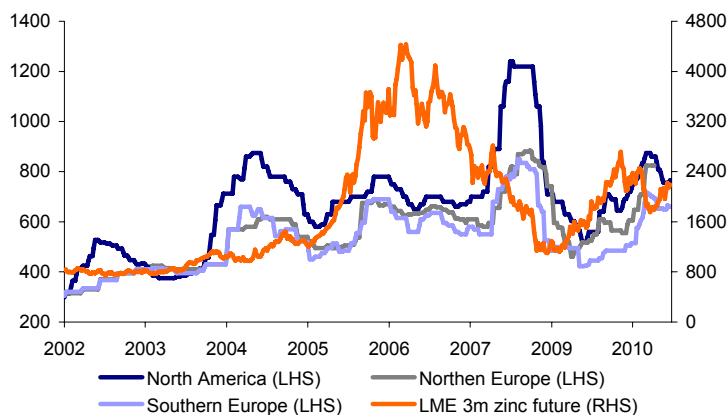
## Summary view

Zinc has witnessed considerable strength over the past quarter. We believe the divergence in price performance between zinc and galvanized steel is due to increasing financial demand in the zinc market. We expect Chinese production cuts to have an impact on prices in the coming months if power restrictions persist. Furthermore, the structural change in consumption patterns in China could continue to support zinc demand.

## Galvanized steel market and OECD demand

Galvanized steel is a key end market for zinc. Figure 26 illustrates hot dip galvanizing sheet price trends in North America and Europe. In contrast to the rally in zinc prices over the past quarter, galvanized steel prices have been under pressure. Hot dip galvanized (HDG) prices in North America have fallen 13% from their June peaks. Producers in southern Europe such as Spain and Italy continued to face weaker demand with shorter order lead times, while in northern Europe the strength of German automotive and capital goods exports supported the production of galvanized sheet. Despite relatively resilient demand, prices for HDG sheet in northern Europe softened in July and August before recovering moderately in September. We believe demand weakness in the galvanized steel market comes from both construction and automotive sectors and is likely to persist in an environment of high unemployment, rising taxes and spending cuts.

**Figure 26: North America and Europe HDG vs LME zinc prices**



Source: Deutsche Bank, Bloomberg Finance LP

## Financial demand

We believe the diverging price performance is partially due to rising financial demand in the zinc market. Similar to aluminium, we believe financial demand for zinc could offset some downward pressure on zinc as traders take advantage of contango in the forward curve. Despite relatively high apparent inventory levels, the availability of the metal is low as a large volume is tied up in long-term warehousing deals.

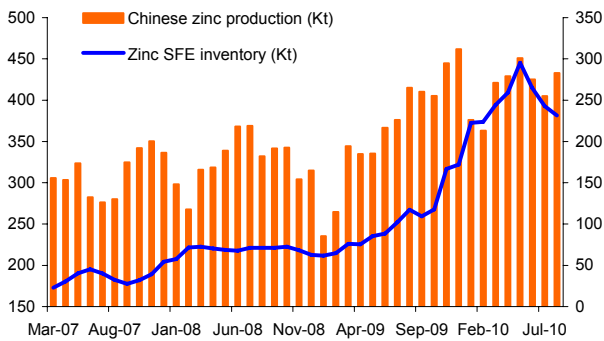
## China: Production cuts

After the recent shutdown of a number of steel and aluminium smelters in China, zinc producers have also been affected by power cuts as Beijing officials have begun to clamp down on excessive power consumption in heavy industries. Guangxi province is among the seven provinces in China where energy intensity rose after the emission reduction target was introduced. In order to meet the target, the local government adopted more stringent power rationing measures in September. The province accounts for about 11% of national total production and at least 80% of zinc smelters in Guangxi are estimated to be affected (about



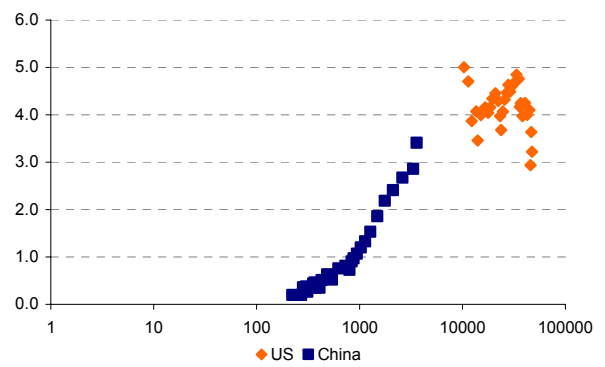
33,500 tons/month). Currently, power restriction in Guangxi takes three forms: limiting power distribution, raising power prices and complete cuts of power supply. According to local smelters, the price per unit of electricity rose 0.1 yuan, and the distribution of electricity is only one-third of the normal production usage. Smelters will face an immediate power blackout if power usage exceeds the allowance. It is unclear whether production will be resumed after a temporary production cut. If power restriction continues, smelters will find it difficult to resume production. Meanwhile, with the "Eleventh Five-Year" emission reduction targets approaching the deadline, other provinces such as Guizhou, Jiangsu and Zhejiang have also begun to limit power consumption, which could reduce zinc production further. Note that while zinc capacity has been heavily affected, China holds significant stocks that are now in the process of being run down. Therefore, the impact on prices resulting from the production cuts is mitigated by high stock levels to some degree.

**Figure 27: Chinese zinc production vs inventory (Kt)**



Source: Deutsche Bank, Bloomberg Finance LP

**Figure 28: China zinc consumption intensity**



Source: Deutsche Bank, CEIC

**China: Economic structural change**

As the Chinese economy matures, steel consumption will likely evolve towards higher quality, more sophisticated steel, which requires metals such as zinc as coating material. Meanwhile, we could see slowing demand for basic steel used for infrastructure and construction purposes. Chinese zinc consumption intensity has increased gradually over the last 30 years. It has to rise by another 25% to reach the average level of US consumption over the same period. We believe the structural change in Chinese consumption patterns should continue to support zinc demand in the longer term.

# Anglo American Zinc acquisition

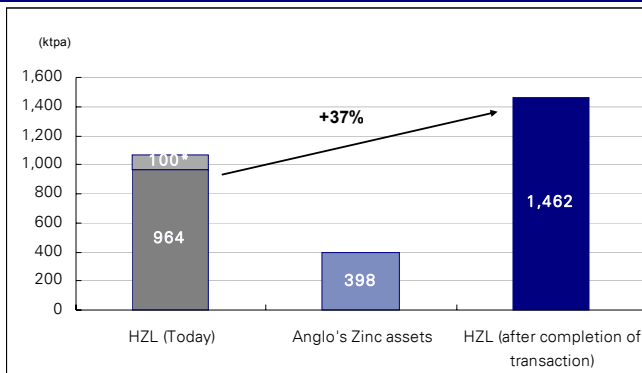
## Quest for size and scale

Hindustan Zinc (HZL) is in the process of acquiring Anglo's zinc assets for a total consideration of US\$1.34bn. The all-cash transaction will be funded from HZL's cash reserves of US\$3.4bn (as per our estimate for FY11-end). The deal will not only allow the company to widen its zinc footprint beyond India but also consolidate its position as the world's largest integrated zinc and lead producer. The agreement entails the transfer of economic ownership to HZL as of 1 January 2010, once all the regulatory approvals have been secured. HZL will acquire each asset (Lisheen, Skorpion and Black Mountain) separately. Deal completion requires board and regulatory approval. In addition, Exxaro currently owns 26% of Black Mountain and may choose to exercise its pre-emptive rights.

We believe that the deal will be earnings accretive for HZL from the very first year. As per the forecasts of our Anglo American analyst (Grant Sporre), the US\$1.34bn acquisition price implies a CY11 EV/EBITDA multiple of 4x at Deutsche Bank's current CY11 zinc price assumption of US\$2,535, which is line with the corresponding valuation for global zinc miners. However, the deal also provides further growth options in the form of the Gamsberg zinc mines, among the world's largest undeveloped zinc deposits, which could provide additional value, in our view.

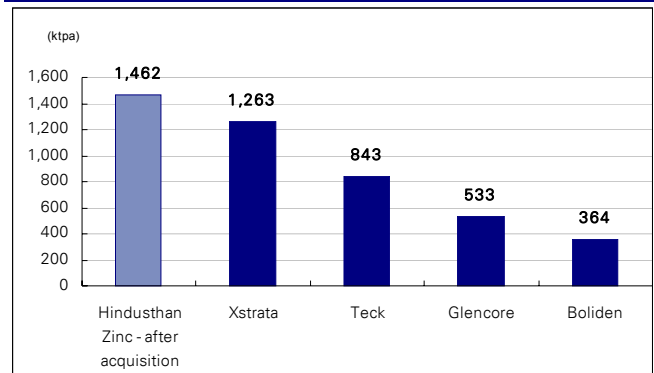
The transaction will give HZL ownership of the Lisheen and Skorpion zinc mines, which are among the top 12 zinc mines in the world based on production capacity, as per the company. The acquisition will further elevate HZL as the world's largest integrated zinc and lead producer, with a combined capacity of 1.462m tonnes. The combined entity will constitute ~12% of global zinc and lead capacity (including the capacity expansion being implemented at HZL's India operations).

**Figure 29: HZL's zinc and lead combined capacity will increase by 37%**



Source: Deutsche Bank, Company data \* under implementation

**Figure 30: HZL to consolidate its position as world's largest integrated zinc and lead producer**



Source: Deutsche Bank, Company data

## Gamsberg and Gergarub mines provide future volume growth opportunity

Upon successful completion of the acquisition (assuming Exxaro does not exercise its right), HZL will also get access to the Gamsberg zinc mine, which is among the world's largest undeveloped zinc deposits, with a total resource base of 186 mmt. HZL management seems to be confident about developing the Gamsberg deposit, with plans to transport the ore to

India for processing. However, our Anglo American analyst, Grant Sporre, believes that the plan presents technical, economical and operational challenges:

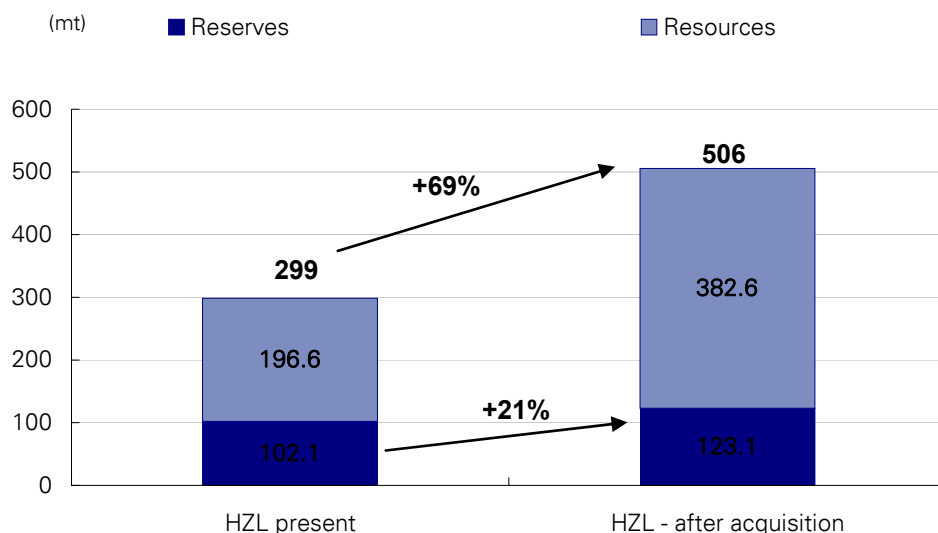
- The deposit contains both manganese and zinc. The two metals present very similar chemical and physical properties and it is therefore very difficult to separate one ore from another. Anglo American had been working unsuccessfully on developing the right technology to treat the ore for 15 years before selling the assets.
- HZL management plans to develop a 400ktpa zinc smelter with a further option to expand it to 530 ktpa. Anglo American planned to commission the project in 2016 with a progressive ramp-up to full capacity in 2018, with a cash cost assumption slightly higher than Skorpion (US\$75/lb in 2009). The project would be well located on the cost curve and its size would likely displace higher cost producers in our view.
- The solution requires significant logistics and treatment capacity, with infrastructure in India already straining. Moreover, it could increase investment requirements significantly. Anglo American’s capex projection for the project was US\$1.93bn.

The Gergarub mine, which has a co-exploration agreement with Rosh Pinah, also provides the option to expand capacities further, with potential R&R of 10m tonnes.

### HZL’s reserves and resources to increase by 206m tonnes

The transaction also increases HZL’s R&R by 69%, adding 206m tonnes to the current level of 298m tonnes, with a majority (67%) of the R&R addition contributed by the undeveloped Gamsberg mines. There is a potential addition of another ~10m tonnes of zinc and lead R&R from the Gergarub mines but HZL’s share will depend on the final agreement with co-exploration partner Rosh Pinah.

**Figure 31: Significant addition to HZL’s reserves and resources**



Source: Deutsche Bank, Company data

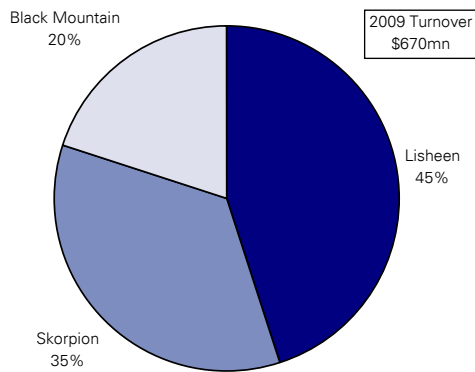
## Details of Anglo's zinc assets

**Figure 32: Anglo's zinc assets (2009)**

Assets details	R&R	R&R Grade (%)		Cash cost	Consideration
	mmt	Zn	Pb	\$/ton	\$m
Lisheen	8.7	11.9%	1.9%	1,287	308
Skorpion	8.3	11.3%	0.0%	902	698
Gergarub	10.0	10.0%	3.0%		
Black Mountain*	51.7	1.5%	2.9%	1,237	332
Gamsberg	137.6	6.9%	0.4%		
<b>Total</b>	<b>216.3</b>				<b>1,338</b>

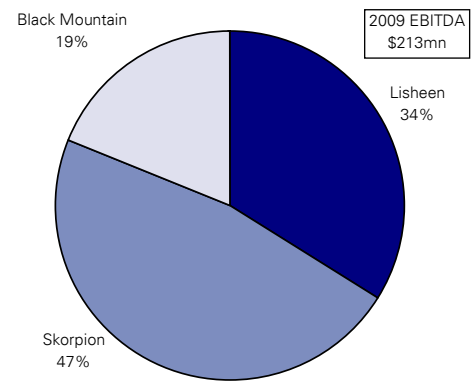
Source: Company, Deutsche Bank, \*-adjusted for 26% ownership of Exxaro in Black Mountain Mining

**Figure 33: Revenue contribution by mine**



Source: Company, Deutsche Bank

**Figure 34: EBITDA contribution by mine**



Source: Company, Deutsche Bank

# Company background

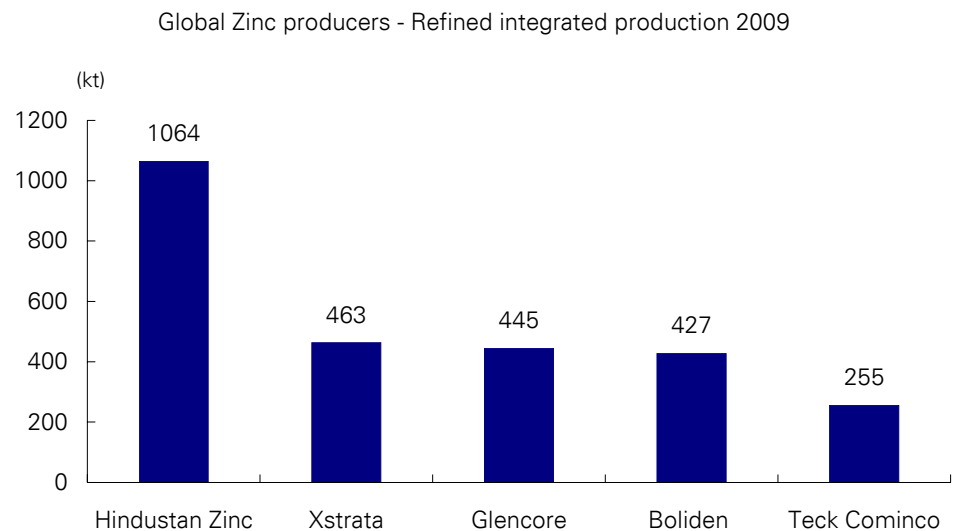
## Acquisition by Sterlite transformative for Hindustan Zinc

Hindustan Zinc (HZL) was incorporated in 1966 as a public sector undertaking before being acquired by Sterlite Industries Ltd (Vedanta Group) in 2002 as part of the Indian government's divestment program. The acquisition by Vedanta was transformative for HZL as it brought to the company the vision to build global scale capacities while maintaining a focus on cost reduction. The Vedanta Group presently holds 64.92% of the company through Sterlite, while the government of India still holds 29.54%. Hindustan Zinc's core business is mining and smelting zinc and lead, along with captive power generation, and its major operations are located in the state of Rajasthan.

## Moving towards becoming the world's largest integrated zinc and lead producer

Sterlite's acquisition of Hindustan Zinc marked a transformation in the company's growth outlook. Following the acquisition in 2002, HZL began to realize its new vision to create world class capabilities in zinc and lead manufacturing and add to its high quality reserves and resources. Since the acquisition by Vedanta, HZL has added over 176.9 million tonnes of zinc and lead reserves and resources, taking the gross reserves and resources to 298.7 million tons (as of 31 March 2010). Management has also been focused on bringing down the cost of production by setting up waste heat recovery plants and other key initiatives.

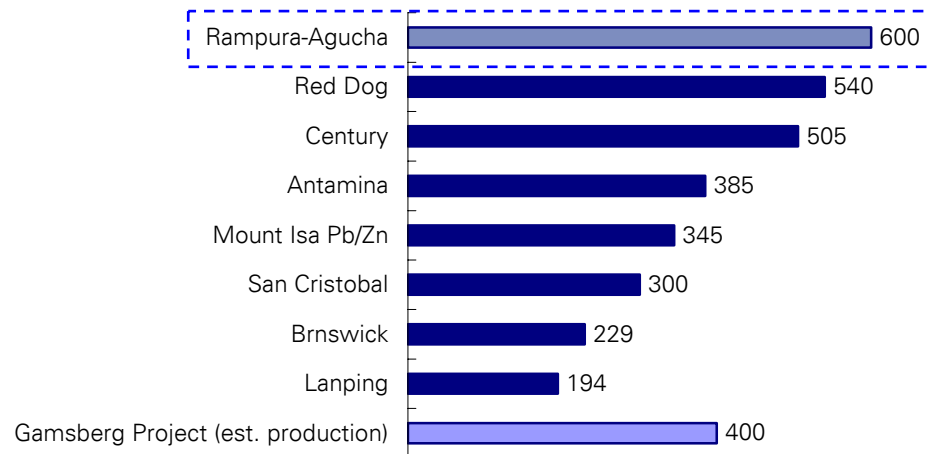
**Figure 35: Major integrated Zinc producers globally**



Source: Deutsche Bank, Company data \* Post expansion capacity for Hindustan Zinc

## Hindustan Zinc – Operational details

Hindustan Zinc's operations are spread across four mines and four smelters. It has an ore production capability of 8.6m tonnes, which will expand to 9.6m tonnes once the expansion at Sindesar Khurd mine is completed in 3Q'FY11. The recent commissioning of a 210ktpa smelter at Dariba has taken zinc metal production capacity to 879kt, while lead capacity will rise to 185ktpa after successful completion of the 100kt lead smelter expansion project at Dariba. Post-expansion, HZL should emerge as a one of the world's leading integrated zinc and lead producers.

**Figure 36: Top Zinc mines globally****2010 E Top Zinc Mines**

Source: Deutsche Bank

**Rampura Agucha Mine (RAM) – Among world’s best zinc mines**

Rampura Agucha is one of HZL’s prime assets. It is the world’s largest zinc-producing mine and also one of the lowest cost zinc producers globally. It comprises ~70% of the total ore production capability of the company and has good quality ore with a high zinc metal content.

During FY10, RAM achieved production of 668,305 tonnes of contained zinc and lead, an increase of 3% YoY. The R&R of RAM on 31 March 2010 was 120.4m tonnes. To increase production, the company started underground mine development work at this location. RAM increased ore production capacity from 5mtpa to 6mtpa.

**Sindesar Khurd Mine (SKM) – Rich silver content**

During FY10, contained zinc and lead production at SKM increased by 61% YoY to 27,789 tonnes. R&R of SKM on 31 March 2010 was 60.8m tonnes. The company plans to increase pre-production capacity at this mine from 0.5mtpa to 1.5mtpa.

**Rajpura Dariba Mine (RDM)**

Contained zinc and lead production at RDM was up 11% YoY to 27,305 tonnes during FY10. R&R of RDM on 31 March 2010 was 42.2m tonnes.

**Zawar Mines (ZM)**

During FY10, ZM produced 45,491 tonnes of contained zinc and lead, an increase of only 1.6% YoY. R&R of ZM on 31 March 2010 was 61.2m tonnes.

**Figure 37: Hindustan Zinc – Mine details**

Location	State	Ore reserve (MMT)	Mine capacity (MTPA)	Zinc grade	Lead grade
Rampura Agucha mine	Rajasthan	75.7	6.00	14.2%	2.0%
Rajpura Dariba	Rajasthan	7.8	0.90	6.3%	1.4%
Sindesar Khurd	Rajasthan	10.7	0.50	5.5%	3.0%
Zawar	Rajasthan	7.9	1.20	3.7%	2.0%
<b>Total</b>	<b>Rajasthan</b>	<b>102.1</b>	<b>8.6</b>		

Source: Deutsche Bank, Company data

## Smelting operations

**Figure 38: Hindustan Zinc – Smelter details**

Location	State	Zinc (TPA)	Lead (TPA)	Silver (TPA)	Sulphuric acid (TPA)	Power (MW)
Chanderiya	Rajasthan	525,000	85,000	180	828,500	263
Debari	Rajasthan	88,000	-	-	419,000	21
Vizag	Andhra Pradesh	56,000	-	-	91,000	-
Zawar	Rajasthan	-	-	-	-	86
Rajpura Dariba	Rajasthan	210,000	100,000	320	305,996	
Samana	Gujarat					89
Gadag	Karnataka					34
<b>Total</b>		<b>879,000</b>	<b>185,000</b>	<b>500</b>	<b>1,644,496</b>	<b>493</b>

Source: Deutsche Bank, Company data

### Chanderiya Smelting Complex (CSC)

CSC is the largest single location zinc smelting complex in the world. This complex includes two hydrometallurgical zinc smelters, one Pyrometallurgical lead-zinc smelter and one Ausmelt plant. Zinc from hydro plants and lead products at this unit are registered with the London Metal Exchange (LME).

### Zinc Smelter Debari (ZSD)

Smelting facilities at this unit include three roaster units, one leaching unit and a cell house unit. Power requirements are met through captive power generation from diesel generation and waste heat recovery.

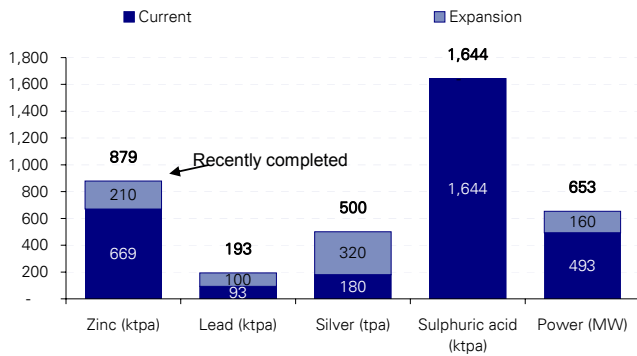
### Zinc Smelter Vizag (ZSV)

ZSV operates on hydro-metallurgical Roast-Leach-Electro winning technology. Power requirements are met through supply from Andhra Pradesh Power Corporation and APTRANSCO and water requirements are supplied by Greater Vizag Municipal Corporation.

### Dariba Smelting Complex-Hydro Zinc Smelter (DSC)

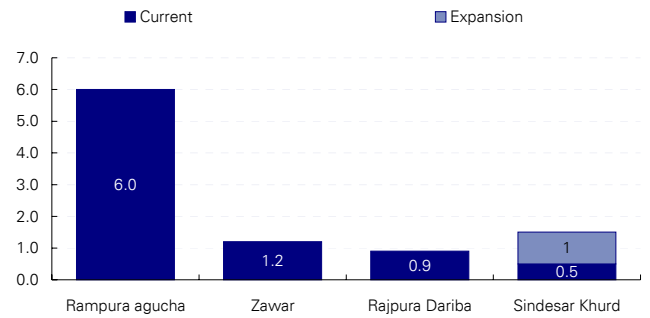
The company commissioned a 210 ktpa hydrometallurgical zinc smelter in March 2010. DSC is in process of setting up an additional 100 ktpa lead smelter and 160 MW (2\*80) coal-based power plant.

**Figure 39: Management's capacity expansion target**



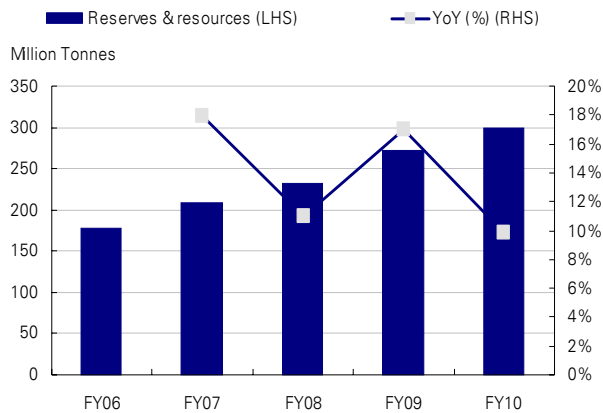
Source: Company, Deutsche Bank

**Figure 40: Mining capacity expansion**



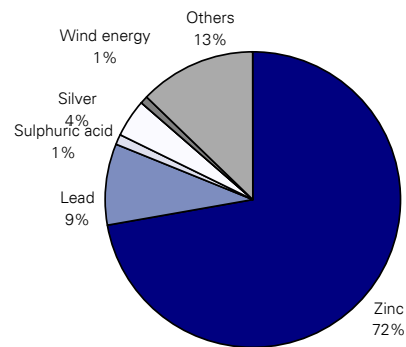
Source: Company, Deutsche Bank

**Figure 41: Reserves and resources**



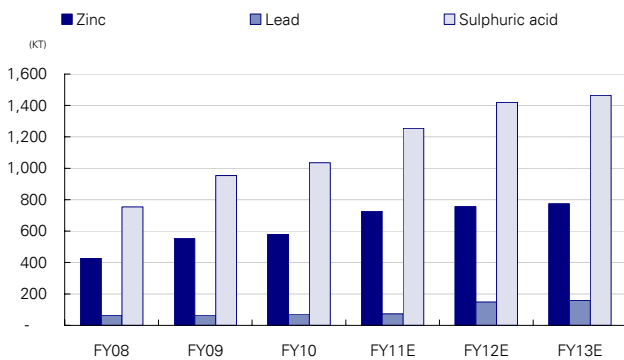
Source: Company, Deutsche Bank

**Figure 42: Revenue breakup by product (FY10)**



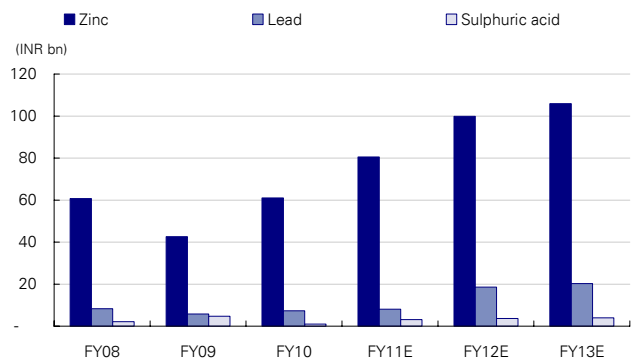
Source: Company, Deutsche Bank

**Figure 43: Production by product**



Source: Company, Deutsche Bank

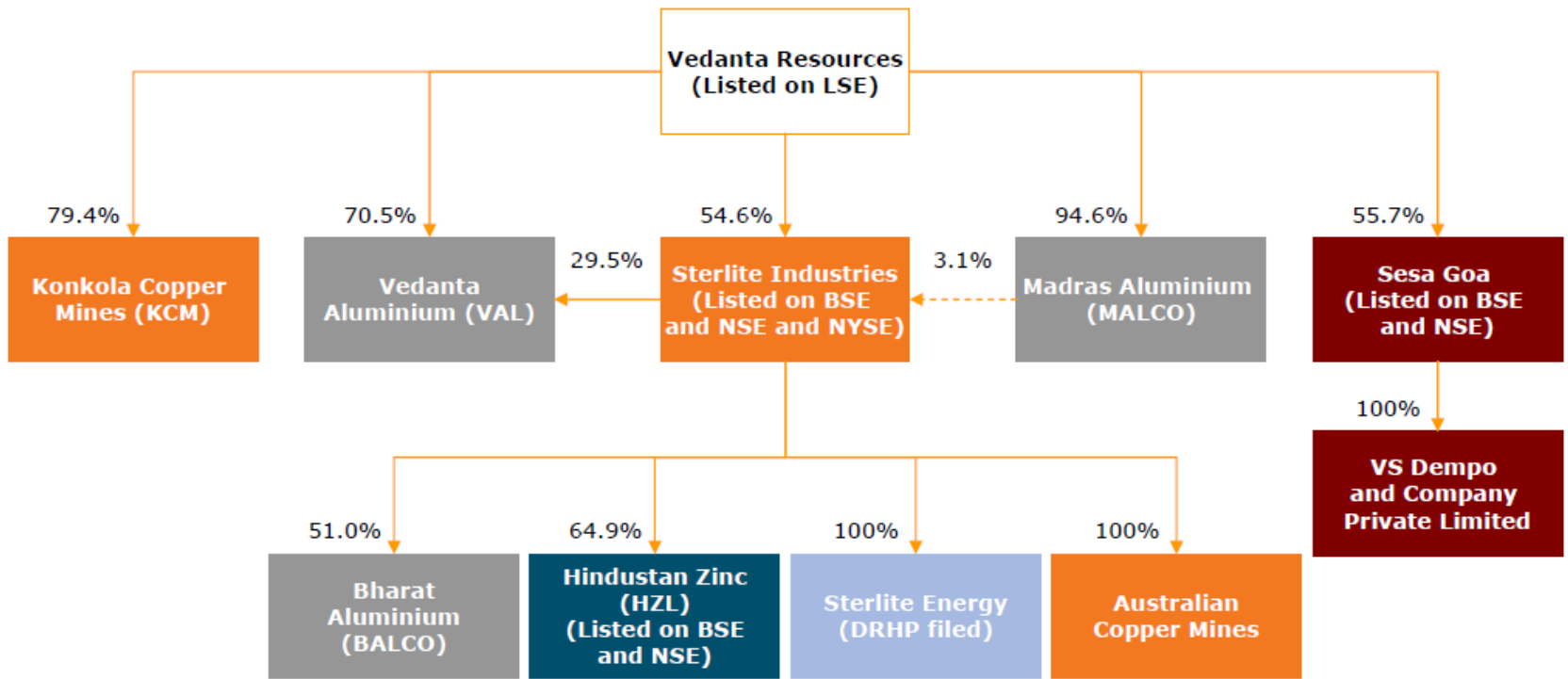
**Figure 44: Sales by product**



Source: Company, Deutsche Banks



**Figure 45: Corporate structure**



**KEY**

- Aluminium    ■ Copper    ■ Zinc
- Iron ore    ■ Power

Notes: Structure as at 30 September 2010

Source: Company, Deutsche Bank

## Management profile

### Mr. Agnivesh Agarwal – Chairman

Mr. Agnivesh Agarwal is Chairman of Hindustan Zinc. He is also a director of Madras Aluminium Company Limited, Sterlite Iron and Steel Company Limited, Sterlite Infrastructure Pvt. Limited, Agarwal Galvanizing Pvt. Limited, and Sterlite Infrastructure Holdings Pvt. Limited. Mr. Agarwal graduated in commerce from Sydenam College, Mumbai and has experience in managing projects, business restructuring and strategy.

### Mr. Akhilesh Joshi – COO and full-time director

Mr Akhilesh Joshi joined the company in 1976 and has risen through the ranks to become the Chief Operating Officer and Whole Time Director. He was the recipient of the National Mineral Award (GOI) in 2006 for his outstanding contribution in the field of Mining Technology. Mr. Joshi has a Mining Engineering degree from MBM Engineering College, Jodhpur and a Post Graduate Diploma in Economic Evaluation of Mining Projects from School of Mines in Paris.

### Mr. Navin Agarwal – Director

Mr. Navin Agarwal, Executive Vice-Chairman of Vedanta Resources Plc, was appointed to the Board of Directors in 2002. Mr. Agarwal is also the chairman of KCM and MALCO, and a director at BALCO, Vedanta Alumina, MALCO and other Sterlite group companies. Mr Agarwal has over 21 years of experience in strategic and operational management. He holds a Bachelor of Commerce degree from Sydenham College, Mumbai, and has also completed the Owner/President Management Program at Harvard University.

### Ms. Ajita Bajpai Pande – Independent Director

Ms. Ajita Bajpai Pande has been an independent director since 24 October 2005. Ms. Pande is an IAS (Indian Administrative Service) Officer and is presently the Joint Secretary of the Ministry of Mines, New Delhi. She is also a director at Hindustan Copper Ltd and BALCO, and has over 28 years of experience.

### Mr. Sanjiv Kumar Mittal – Independent Director

Mr. Sanjiv Kumar Mittal has been an independent director on Hindustan Zinc's board since March 2007. Mr. Mittal is an IAS officer and the Joint Secretary and Financial Advisor of the Government of India, Ministry of Mines in New Delhi. He is also a director at BALCO, Hindustan Copper Ltd, Singrari Collieries Company Ltd and Coal Mine Planning & Design Institute, and has over 21 years of experience.

### Mr. A. R. Narayanaswamy – Independent Director

Mr A. R. Narayanaswamy is a non-executive independent director. He is a member of The Institute of Chartered Accountants of India and has vast experience in the industry. He is also on the Board of Madras Aluminium Company Limited and Sterlite Technology Limited.

## Shareholding pattern

**Figure 46: Shareholding pattern (%)**

(%)	Sep-09	Dec-09	Mar-10	Jul-10	Sep-10
Promoters	64.9	64.9	64.9	64.9	64.9
MFs	1.3	1.2	1.1	1.1	1.1
Central & state Govt	29.5	29.5	29.5	29.5	29.5
FIs	1.6	2.0	2.2	1.9	1.9
Banks & FIs	0.5	0.3	0.3	0.4	0.4
Others	2.0	1.9	1.9	2.11	2.11
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: NSE, Deutsche Bank

# Appendix A – HZL financials

**Figure 47: Hindustan Zinc – Profit and loss statement (INR m)**

(Year to March)	FY07	FY08	FY09	FY10	FY11E	FY12E	FY13E
<b>Revenue from operations</b>	<b>85,602</b>	<b>78,778</b>	<b>56,803</b>	<b>80,170</b>	<b>90,928</b>	<b>121,666</b>	<b>133,395</b>
YoY		-8.0%	-27.9%	41.1%	13.4%	33.8%	9.6%
Direct expenses	14,712	17,152	19,010	21,702	27,082	33,085	35,332
% of sales	17.2%	21.8%	33.5%	27.1%	29.8%	27.2%	26.5%
Employee expenses	2,598	3,082	3,649	4,574	5,342	6,345	6,742
% of sales	3.0%	3.9%	6.4%	5.7%	5.9%	5.2%	5.1%
Other expenses	4,223	4,760	6,802	7,194	9,762	11,538	12,439
% of sales	4.9%	6.0%	12.0%	9.0%	10.7%	9.5%	9.3%
<b>Total operating expenses</b>	<b>21,533</b>	<b>24,994</b>	<b>29,461</b>	<b>33,469</b>	<b>42,186</b>	<b>50,967</b>	<b>54,513</b>
% of sales	25.2%	31.7%	51.9%	41.7%	46.4%	41.9%	40.9%
<b>EBITDA</b>	<b>64,069</b>	<b>53,784</b>	<b>27,342</b>	<b>46,701</b>	<b>48,742</b>	<b>70,699</b>	<b>78,882</b>
Operating profit margin (OPM)(%)	74.8%	68.3%	48.1%	58.3%	53.6%	58.1%	59.1%
Depreciation and amortization	1,561	2,205	2,853	3,343	4,537	4,990	5,065
<b>EBIT</b>	<b>62,508</b>	<b>51,579</b>	<b>24,489</b>	<b>43,358</b>	<b>44,206</b>	<b>65,709</b>	<b>73,817</b>
EBIT margin (%)	73.0%	65.5%	43.1%	54.1%	48.6%	54.0%	55.3%
Interest expenses	284	242	219	439	450	350	200
Other income	2,313	8,516	9,312	7,222	9,000	12,500	17,000
<b>Profit before tax</b>	<b>64,537</b>	<b>59,853</b>	<b>33,582</b>	<b>50,141</b>	<b>52,756</b>	<b>77,859</b>	<b>90,617</b>
Tax	20,119	15,893	6,306	9,727	10,024	14,793	17,217
<b>Deutsche Bank profit after tax (PAT)</b>	<b>44,418</b>	<b>43,961</b>	<b>27,276</b>	<b>40,414</b>	<b>42,732</b>	<b>63,066</b>	<b>73,400</b>
Net profit margin (NPM) (%)	51.9%	55.8%	48.0%	50.4%	47.0%	51.8%	55.0%
Associates	0	0	0	0	0	0	0
Minorities	0	0	0	0	0	0	0
<b>Deutsche Bank PAT post minorities</b>	<b>44,418</b>	<b>43,961</b>	<b>27,276</b>	<b>40,414</b>	<b>42,732</b>	<b>63,066</b>	<b>73,400</b>
Dividend per share	5.0	5.0	4.0	6.0	6.3	9.3	10.8
Dividend payout (%)	4.8%	4.8%	6.2%	6.3%	6.2%	6.2%	6.2%

Source: Deutsche Bank, company data

**Figure 48: Hindustan Zinc – Balance sheet (INR m)**

(Year to march)	FY07	FY08	FY09	FY10	FY11E	FY12E	FY13E
<b>Liabilities and shareholders' equity</b>							
Share capital	4,225	4,225	4,225	4,225	4,225	4,225	4,225
Reserves & surplus	72,045	114,257	139,351	177,014	216,647	275,138	343,213
Misc expenses not w/o	0	0	0	0	0	0	0
<b>Total shareholders' funds</b>	<b>76,271</b>	<b>118,482</b>	<b>143,576</b>	<b>181,240</b>	<b>220,872</b>	<b>279,363</b>	<b>347,438</b>
Preference share capital	0	0	0	0	0	0	0
Secured loans	-	-	-	-	-	-	-
Unsecured loans	4	4	87	605	605	605	605
<b>Total debt</b>	<b>4</b>	<b>4</b>	<b>87</b>	<b>605</b>	<b>605</b>	<b>605</b>	<b>605</b>
Deferred tax liability	3,006	4,597	5,589	7,112	7,112	7,112	7,112
Minority interest	0	0	0	0	0	0	0
Other liability	0	0	0	0	0	0	0
<b>Total shareholders' equity and liabilities</b>	<b>79,281</b>	<b>123,083</b>	<b>149,251</b>	<b>188,957</b>	<b>228,589</b>	<b>287,080</b>	<b>355,155</b>
<b>ASSETS</b>							
<b>Fixed assets</b>							
Gross block	34,998	51,818	58,555	82,407	99,056	100,556	102,056
Depreciation	12,642	14,846	17,506	20,766	25,302	30,293	35,358
<b>Net block</b>	<b>22,356</b>	<b>36,972</b>	<b>41,049</b>	<b>61,641</b>	<b>73,754</b>	<b>70,264</b>	<b>66,698</b>
Capital work in progress	6,350	4,655	11,084	11,130	0	0	0
<b>Total fixed assets</b>	<b>28,706</b>	<b>41,626</b>	<b>52,133</b>	<b>72,771</b>	<b>73,754</b>	<b>70,264</b>	<b>66,698</b>
Goodwill	0	0	0	0	0	0	0
Investments	44,033	63,325	69,289	109,492	109,492	109,492	109,492
Inventories	4,993	5,181	5,457	4,517	5,979	8,000	8,771
Sundry debtors	5,566	4,437	1,649	1,518	4,484	6,000	6,578
Cash and equivalents	1,197	13,628	27,192	9,275	43,349	104,278	175,727
Other current assets	7	30	408	70	0	0	0
Loans and advances	3,047	3,841	3,133	4,572	4,572	4,572	4,572
<b>Total current assets</b>	<b>14,810</b>	<b>27,116</b>	<b>37,839</b>	<b>19,953</b>	<b>58,384</b>	<b>122,850</b>	<b>195,648</b>
<i>Days of CA</i>	<i>63</i>	<i>126</i>	<i>243</i>	<i>91</i>	<i>234</i>	<i>369</i>	<i>535</i>
Sundry creditors and others	6,418	7,749	8,028	9,863	9,940	10,951	11,359
Provisions	1,850	1,236	1,981	3,395	3,100	4,575	5,324
<b>Total CL &amp; provisions</b>	<b>8,268</b>	<b>8,984</b>	<b>10,010</b>	<b>13,258</b>	<b>13,040</b>	<b>15,526</b>	<b>16,683</b>
<i>Days of CL</i>	<i>140</i>	<i>131</i>	<i>124</i>	<i>145</i>	<i>113</i>	<i>111</i>	<i>112</i>
<b>Net current assets</b>	<b>6,542</b>	<b>18,132</b>	<b>27,830</b>	<b>6,695</b>	<b>45,344</b>	<b>107,325</b>	<b>178,965</b>
Other non current assets	0	0	0	0	0	0	0
<b>Total assets</b>	<b>79,281</b>	<b>123,083</b>	<b>149,251</b>	<b>188,957</b>	<b>228,589</b>	<b>287,080</b>	<b>355,155</b>

Source: Deutsche Bank, company data

# Appendix 1

## Important Disclosures

Additional information available upon request

### Disclosure checklist

Company	Ticker	Recent price*	Disclosure
Hindustan Zinc	HZNC.BO	1211.50 (INR) 15 Nov 10	NA

\*Prices are sourced from local exchanges via Reuters, Bloomberg and other vendors. Data is sourced from Deutsche Bank and subject companies.

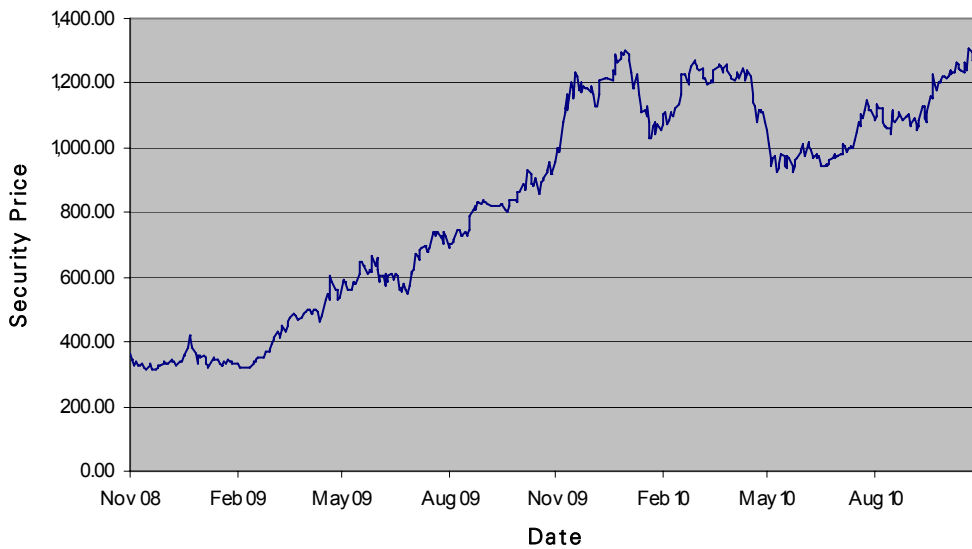
**For disclosures pertaining to recommendations or estimates made on securities other than the primary subject of this research, please see the most recently published company report or visit our global disclosure look-up page on our website at <http://gm.db.com/ger/disclosure/Disclosure.eqsrf?ricCode=HZNC.BO>.**

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The views expressed in this report accurately reflect the personal views of the undersigned lead analyst(s) about the subject issuer and the securities of the issuer. In addition, the undersigned lead analyst(s) has not and will not receive any compensation for providing a specific recommendation or view in this report. Anuj Singla

### Historical recommendations and target price: Hindustan Zinc (HZNC.BO)

(as of 15/11/2010)



#### Previous Recommendations

- Strong Buy
- Buy
- Market Perform
- Underperform
- Not Rated
- Suspended Rating

#### Current Recommendations

- Buy
- Hold
- Sell
- Not Rated
- Suspended Rating

\*New Recommendation Structure as of September 9, 2002

Equity rating key Equity rating dispersion and banking relationships

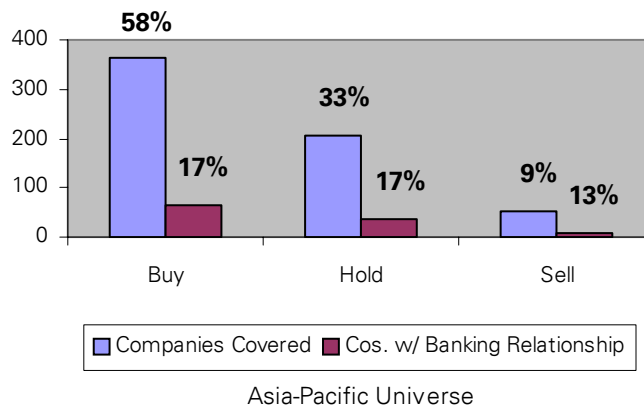
**Buy:** Based on a current 12-month view of total shareholder return (TSR = percentage change in share price from current price to projected target price plus projected dividend yield), we recommend that investors buy the stock.

**Sell:** Based on a current 12-month view of total shareholder return, we recommend that investors sell the stock

**Hold:** We take a neutral view on the stock 12-months out and, based on this time horizon, do not recommend either a Buy or Sell.

**Notes:**

1. Newly issued research recommendations and target prices always supersede previously published research.
2. Ratings definitions prior to 27 January, 2007 were:
  - Buy: Expected total return (including dividends) of 10% or more over a 12-month period
  - Hold: Expected total return (including dividends) between -10% and 10% over a 12-month period
  - Sell: Expected total return (including dividends) of -10% or worse over a 12-month period



## Regulatory Disclosures

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