Hindustan Zinc HZNC.NS HZ IN

METALS & MINING

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Downside support, but upside capped

Silver boost in the price – little to look forward to

October 7, 2011

Rating Remains	**Neutral**
Target price Reduced from 130	INR 120
Closing price October 4, 2011	INR 112
Potential upside	+7.1%

Action: Lack of catalysts either way

HZ has been one of the better performing metal stocks during the past two months (down 19.6% compared to the BSE metal index's fall of 26.8%). We believe the stock will have downside support on account of: 1) cash of INR192bn and 2) earnings visibility. However, upside will likely be capped as we expect: 1) earnings growth to taper since most of the expansion is already completed and given higher royalties on account of new mines and mineral acts and 2) we don't expect yield on its cash and equivalents to improve for lack of investment opportunities. Maintain NEUTRAL with a target price of INR120.

Catalysts: Not in the immediate future

The sale of the remaining stake in HZ by the government would be a key positive catalyst, in our view.

Valuations: Fairly valued, maintain NEUTRAL

We have valued HZ at 10x FY13E EPS of INR13. On our valuations the stock would trade at 7.6x FY13E EV/EBITDA and 1.8x FY12E P/B. Since cash contributes more than 35% of the total value, we believe there is a strong support for the stock on the downside.

- Although zinc prices have corrected by 16% during the past two months, the impact was mitigated by a corresponding 10% depreciation of INR.
- We have reduced our target price to INR 120 from INR 130 earlier, as our earnings estimates have come down due to higher royalties on account of new mines and minerals bill.

31 Mar	FY11	FY12F		FY13F		FY14F	
Currency (INR)	Actual	Old	New	Old	New	Old	New
Revenue (mn)	99,121	111,260	107,257	117,139	121,021		126,877
Reported net profit (mn)	49,005	52,710	52,227	54,816	50,610		53,595
Normalised net profit (mn)	49,217	52,710	52,227	54,816	50,610		53,595
Normalised EPS	11.65	12.48	12.36	12.97	11.98		12.68
Norm. EPS growth (%)	21.8	21.4	6.1	4.0	-3.1		5.9
Norm. P/E (x)	9.6	N/A	9.0	N/A	9.3	N/A	8.8
EV/EBITDA (x)	7.6	7.0	7.1	6.5	7.2		6.3
Price/book (x)	2.1	N/A	1.7	N/A	1.5	N/A	1.3
Dividend yield (%)	1.0	N/A	1.0	N/A	1.0	N/A	1.0
ROE (%)	24.1	21.4	21.0	18.4	17.1		15.6
Net debt/equity (%)	net cash	net cash	net cash	net cash	net cash		net cash

Source: Nomura estimates

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

Anchor themes

Despite a depreciating currency, close to 25% of smelters have turned unprofitable at current zinc prices. While high inventory is a concern in the short term, we expect zinc prices to remain close to USD2,000/t.

Nomura vs consensus

Consensus earnings estimates and target prices are 10-15% higher than ours. We believe this is primarily on account of higher metal price estimates.

Research analysts

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

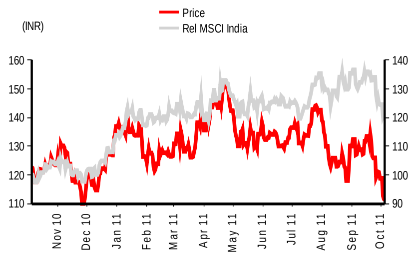
Key data on Hindustan Zinc

Income statement (INRmn)

Year-end 31 Mar	FY10	FY11	FY12F	FY13F	FY14F
Revenue	**80,170**	**99,121**	**107,257**	**121,021**	**126,877**
Cost of goods sold	-29,082	-40,320	-46,640	-61,897	-64,313
Gross profit	**51,087**	**58,802**	**60,617**	**59,124**	**62,565**
SG&A	-3,156	-3,485	-3,764	-4,065	-4,390
Employee share expense	-4,574	-5,108	-5,516	-5,958	-6,434
Operating profit	**43,358**	**50,209**	**51,337**	**49,101**	**51,740**
EBITDA	**46,701**	**54,956**	**57,031**	**55,718**	**59,015**
Depreciation	-3,343	-4,747	-5,694	-6,616	-7,275
Amortisation					
EBIT	43,358	50,209	51,337	49,101	51,740
Net interest expense	-439	-194	-194	-194	-194
Associates & JCEs					
Other income	7,222	9,792	13,335	15,156	17,165
Earnings before tax	**50,141**	**59,807**	**64,478**	**64,063**	**68,712**
Income tax	-9,727	-10,591	-12,251	-13,453	-15,117
Net profit after tax	**40,414**	**49,217**	**52,227**	**50,610**	**53,595**
Minority interests					
Other items					
Preferred dividends					
Normalised NPAT	**40,414**	**49,217**	**52,227**	**50,610**	**53,595**
Extraordinary items	0	-212	0	0	
Reported NPAT	**40,414**	**49,005**	**52,227**	**50,610**	**53,595**
Dividends	-2,956	-4,911	-4,911	-4,911	-4,911
Transfer to reserves	**37,458**	**44,094**	**47,316**	**45,699**	**48,684**
Valuation and ratio analysis					
FD normalised P/E (x)	11.7	9.6	9.0	9.3	8.8
FD normalised P/E at price target (x)	12.5	10.3	9.7	10.0	9.5
Reported P/E (x)	11.7	9.6	9.0	9.3	8.8
Dividend yield (%)	0.6	1.0	1.0	1.0	1.0
Price/cashflow (x)	10.0	10.0	7.8	8.8	7.8
Price/book (x)	2.6	2.1	1.7	1.5	1.3
EV/EBITDA (x)	9.9	7.6	7.1	7.2	6.3
EV/EBIT (x)	10.7	8.3	7.9	8.2	7.2
Gross margin (%)	63.7	59.3	56.5	48.9	49.3
EBITDA margin (%)	58.3	55.4	53.2	46.0	46.5
EBIT margin (%)	54.1	50.7	47.9	40.6	40.8
Net margin (%)	50.4	49.4	48.7	41.8	42.2
Effective tax rate (%)	19.4	17.7	19.0	21.0	22.0
Dividend payout (%)	7.3	10.0	9.4	9.7	9.2
Capex to sales (%)	29.9	13.4	14.0	12.4	11.8
Capex to depreciation (x)	7.2	2.8	2.6	2.3	2.1
ROE (%)	24.9	24.1	21.0	17.1	15.6
ROA (pretax %)	26.7	25.9	24.1	19.4	18.2
Growth (%)					
Revenue	41.1	23.6	8.2	12.8	4.8
EBITDA	70.8	17.7	3.8	-2.3	5.9
EBIT	77.1	15.8	2.2	-4.4	5.4
Normalised EPS	48.2	21.8	6.1	-3.1	5.9
Normalised FDEPS	48.2	21.8	6.1	-3.1	5.9
Per share					
Reported EPS (INR)	9.56	11.60	12.36	11.98	12.68
Norm EPS (INR)	9.56	11.65	12.36	11.98	12.68
Fully diluted norm EPS (INR)	9.56	11.65	12.36	11.98	12.68
Book value per share (INR)	42.89	53.33	64.53	75.34	86.86
DPS (INR)	0.70	1.16	1.16	1.16	1.16

Source: Nomura estimates

Relative performance chart (one year)



Source: ThomsonReuters, Nomura research

(%)	1M	3M	12M
Absolute (INR)	-15.7	-19.2	-3.9
Absolute (USD)	-21.8	-27.4	-13.4
Relative to index	-10.6	-2.9	20.5
Market cap (USDmn)	9,537.8		
Estimated free float (%)	5.6		
52-week range (INR)	155.25/108.61		
3-mth avg daily turnover (USDmn)	3.14		
Major shareholders (%)			
Sterlite Industeries	64.9		
Govt of India	29.5		

Source: Thomson Reuters, Nomura research

Notes

Revenue growth to be driven largely by silver and lead expansion.

Cashflow (INRmn)

Year-end 31 Mar	FY10	FY11	FY12F	FY13F	FY14F
EBITDA	46,701	54,956	57,031	55,718	59,015
Change in working capital	3,219	-6,394	2,257	-3,366	-230
Other operating cashflow	-2,944	-1,204	890	1,508	1,855
Cashflow from operations	**46,975**	**47,358**	**60,178**	**53,860**	**60,640**
Capital expenditure	-24,004	-13,296	-15,000	-15,000	-15,000
Free cashflow	**22,971**	**34,062**	**45,178**	**38,860**	**45,640**
Reduction in investments	-40,203	16,146	-30,000	-30,000	-10,000
Net acquisitions					
Reduction in other LT assets					0
Addition in other LT liabilities	1,524	2,335	0	0	0
Adjustments					
Cashflow after investing acts	**-15,708**	**52,543**	**15,178**	**8,860**	**35,640**
Cash dividends	-2,956	-4,911	-4,911	-4,911	-4,911
Equity issue	0	0	0	0	0
Debt issue	518	-601	0	0	0
Convertible debt issue	0	0	0	0	0
Others	230	23			
Cashflow from financial acts	**-2,209**	**-5,489**	**-4,911**	**-4,911**	**-4,911**
Net cashflow	**-17,917**	**47,054**	**10,267**	**3,950**	**30,730**
Beginning cash	27,192	9,275	56,329	66,596	70,546
Ending cash	9,275	56,329	66,596	70,546	101,276
Ending net debt	-8,671	-56,325	-66,593	-70,542	-101,272

Source: Nomura estimates

Notes

The company will continue to generate strong cash flows, in our view as capex in limited.

Balance sheet (INRmn)

As at 31 Mar	FY10	FY11	FY12F	FY13F	FY14F
Cash & equivalents	9,275	56,329	66,596	70,546	101,276
Marketable securities	0	0	0	0	0
Accounts receivable	1,518	2,089	2,260	2,550	2,674
Inventories	4,517	7,624	8,023	11,555	11,856
Other current assets	4,642	9,848	7,846	8,789	9,190
Total current assets	**19,953**	**75,889**	**84,726**	**93,441**	**124,996**
LT investments	109,492	93,346	123,346	153,346	163,346
Fixed assets	72,770	81,294	90,600	98,984	106,709
Goodwill	0	0	0	0	0
Other intangible assets	0	0	0	0	0
Other LT assets	0	0	0	0	0
Total assets	**202,215**	**250,529**	**298,673**	**345,771**	**395,050**
Short-term debt					
Accounts payable	9,863	10,076	10,903	12,302	12,897
Other current liabilities	3,395	5,671	5,671	5,671	5,671
Total current liabilities	**13,258**	**15,747**	**16,574**	**17,973**	**18,568**
Long-term debt	605	4	4	4	4
Convertible debt	0	0	0	0	0
Other LT liabilities	7,112	9,447	9,447	9,447	9,447
Total liabilities	**20,975**	**25,198**	**26,025**	**27,424**	**28,019**
Minority interest	0	0	0	0	0
Preferred stock	0	0	0	0	0
Common stock	4,225	8,451	8,451	8,451	8,451
Retained earnings	37,458	44,094	47,316	45,699	48,684
Proposed dividends	2,956	4,911	4,911	4,911	4,911
Other equity and reserves	136,600	167,876	211,970	259,287	304,986
Total shareholders' equity	**181,239**	**225,332**	**272,648**	**318,347**	**367,031**
Total equity & liabilities	**202,214**	**250,530**	**298,673**	**345,771**	**395,050**
Liquidity (x)					
Current ratio	1.50	4.82	5.11	5.20	6.73
Interest cover	98.7	258.8	264.6	253.1	266.7
Leverage					
Net debt/EBITDA (x)	net cash	net cash	net cash	net cash	net cash
Net debt/equity (%)	net cash	net cash	net cash	net cash	net cash
Activity (days)					
Days receivable	7.2	6.6	7.4	7.3	7.5
Days inventory	62.6	55.0	61.4	57.7	66.4
Days payable	112.3	90.2	82.3	68.4	71.5
Cash cycle	-42.5	-28.7	-13.5	-3.4	2.4

Source: Nomura estimates

Notes

Strong balance sheet with INR 190bn of cash reserve by the end of FY12

Cash a key support – but lacks catalyst

HZ is amongst the best-performing metal stocks during the past two months (down 19.6% compared to the BSE Metal index down 26.8%), primarily on account of its strong balance sheet and strong earnings visibility. Although zinc prices have corrected by 16% during the same period, INR depreciation of 10% has mitigated the impact.

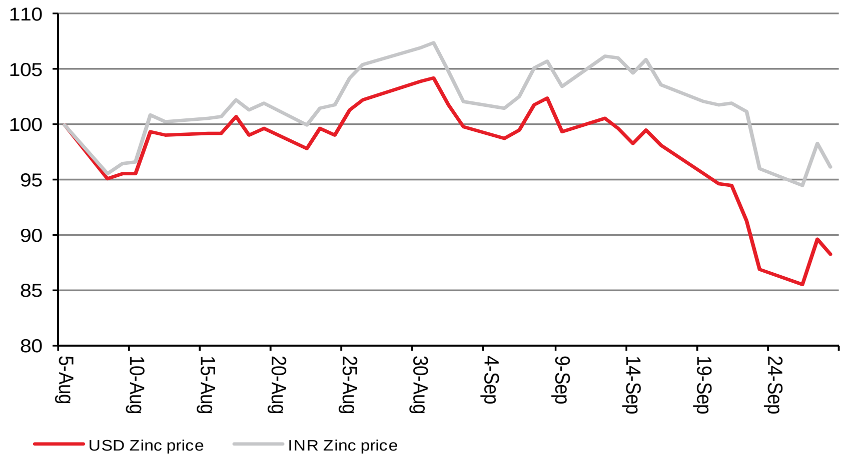
We expect zinc prices to start stabilizing at around USD2,000/t (down from our earlier estimate of USD2,200/t), primarily because we expect slower zinc demand growth to keep inventory at higher levels. At the same time, marginal cost has also come down, due to lower treatment charges (TC) and depreciation of some of the zinc-producing currencies.

We have lowered our earnings estimates by 1% in FY12 on account of lower zinc realization estimates and 7.5% in FY13, primarily on account of higher royalties as proposed by new mines and minerals bill (approved by the cabinet and to be presented in the parliament in the winter session). We have also lowered our TP for HZ to INR120/share (from INR 130 earlier) — we maintain our NEUTRAL rating on the stock.

Zinc price fall has been mitigated by rupee depreciation

Zinc prices have corrected by close to 16% from USD2,200 /t to USD1,860/t during the past two months. However, the INR has depreciated by 10% during the same period. Therefore, realizations for HZ have fallen by just 5-6%.

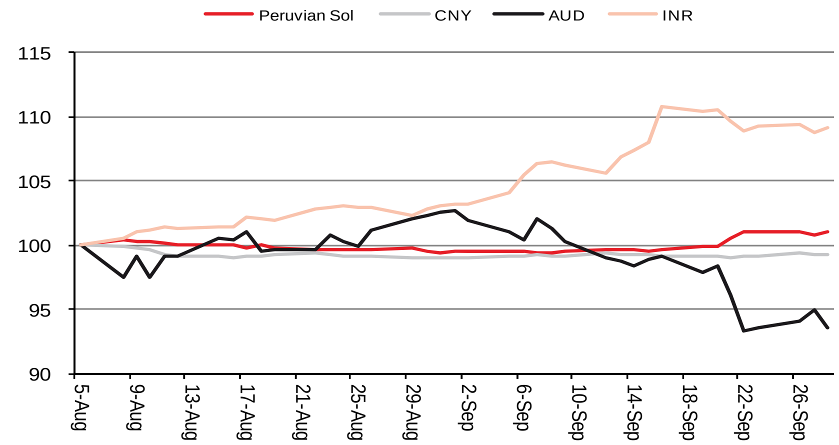
Fig. 1: INR depreciation has mitigated the impact of zinc price falls during the past two months



Source: Bloomberg

Indian zinc producers will be at an advantage, in our view, given that most of the other major currencies have remained largely flat, while the INR has depreciated by close to 10% during the past two months. So while smelters/miners in other countries (Australia, China and Peru) have seen 10-15% falls in revenues, HZ has seen just a 5-6% fall.

Fig. 2: Major zinc currencies have remained flat during the past two months



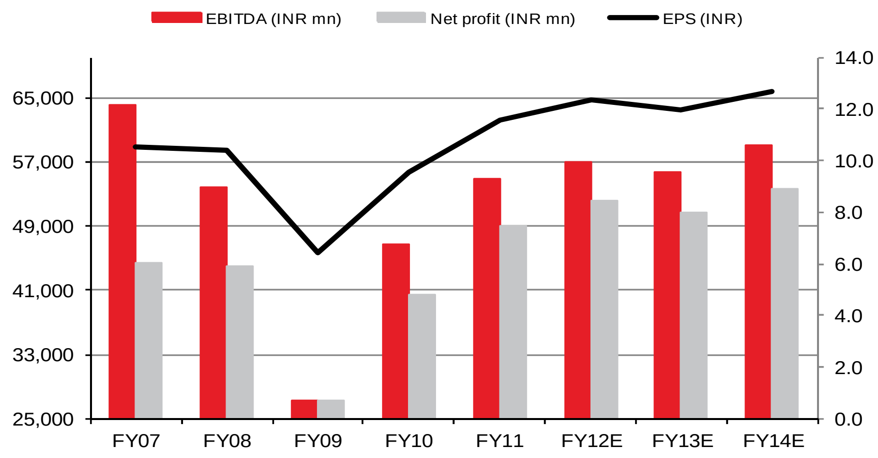
Source: Bloomberg, Nomura research

Zinc prices should find support at current prices

Close to 20% of the global smelters have turned unprofitable at contract TC, which is USD40-50/t higher than spot prices (at spot TC almost 35% of the smelters will be making losses, as per Brook Hunt). Although most of the global miners are still profitable on account of lower TC, we believe zinc supply will start to become strained as more and more smelters come under pressure.

Although high inventory is a concern in the near term, we believe at zinc prices below USD2,000/t, supply will start to be affected. Hence, zinc prices should average closer to USD2,000/t, which is the marginal cost of production adjusted for currency depreciation and lower TC. Please see the section on zinc for more details.

Fig. 3: Profit and EBITDA growth set to taper off



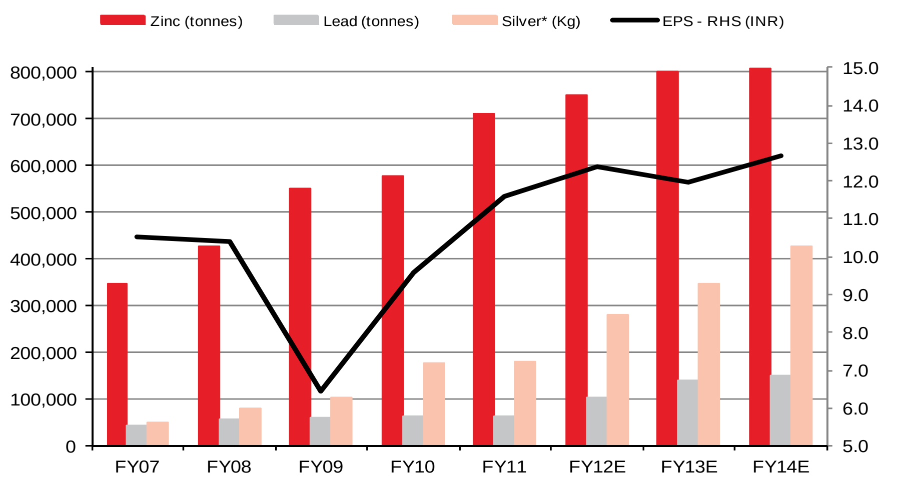
Source: Company data, Nomura estimates

HZ earnings growth to taper off

We expect HZ to see slower earnings growth on account of: 1) limited volume growth, 2) an increasing tax rate and 3) cost of production remaining elevated.

Most of the capacity expansion is already over with the commissioning of a 100k-tonne lead smelter earlier this year. At the same time with higher royalty payment expected once the mines & minerals bill is approved by the parliament (already approved by the cabinet), earnings would actually decline in FY13 by close to 3.1%. The impact of the mining bill would be close to a 14% cut in earnings; however it has been mitigated by higher lead volume estimates. At the same time, we do not expect any improvement in deployment of its cash (INR190bn as of end FY12E). Since we expect zinc and lead prices to remain range-bound from here on, earnings growth will be limited, in our view.

Fig. 4: Volume growth to slow as major expansions are completed



Source: Company data, Nomura estimates

Fig. 5: Key estimates

Sales volume (tonnes)	FY09	FY10	FY11	FY12E	FY13E	FY14E
Zinc	552,330	577,685	712,603	750,812	799,731	807,728
Lead	60,564	64,391	57,229	105,000	140,650	148,933
Total metal volume	612,894	642,076	769,832	855,812	940,381	956,660
Sulphuric acid	974,587	1,038,496	1,191,847	1,315,940	1,445,977	1,471,010
Silver sales (KG)	103,125	139,130	146,558	280,870	348,957	425,946
Realization						
Zinc	1,600	1,960	2,250	2,000	2,000	2,000
Lead	1,650	2,000	2,300	2,000	2,000	2,000
Sulphuric acid	4,932	981	2,614	3,000	3,000	3,000
Silver (INR/t)	20,353	24,724	37,090	55,000	55,000	55,000
INR - USD rate	45.0	47.0	45.5	47.5	48.0	48.0
EBITDA	27,342	46,701	54,956	57,031	55,718	59,015
Other income	9,312	7,222	9,792	13,335	15,156	17,168
Net profit	27,276	40,414	49,005	52,227	50,610	53,597
EPS (INR)	6.5	9.6	11.6	12.4	12.0	12.7
Cash and Eq (net)	96,480	118,767	149,675	189,942	223,902	264,663
Book value/share	34	43	53	65	75	87
ROE (%)	19.0%	22.3%	21.7%	19.2%	15.9%	14.6%

Source: Company data, Nomura estimates

Tax rate set to increase from next year…

Export oriented unit (EOU) benefits that HZ was enjoying until FY11 have lapsed from FY12 and hence tax rates will go up from the current year. However, the tax rate will still not be at the full rate of 30%, as there are accrued tax credits from earlier periods. The company's tax rate will increase gradually as prior period adjustments take time to work through. We have built in tax rates of 19% in FY12E and 21% in FY13E, from 17.8% in FY11.

…along with higher royalties

With the new mines and minerals bill getting approved by the cabinet and expected to be presented in the parliament in the winter session, we have started to build in higher royalties as proposed by the bill. As per this bill, an amount equivalent to the royalty is to be paid towards a fund to be used for rehabilitation of displaced people.

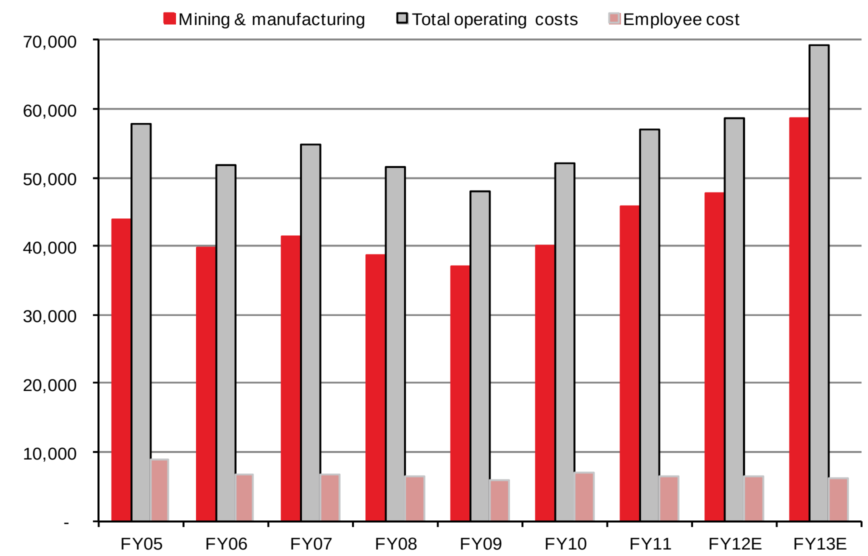
Mining costs to remain high – most of the efficiencies realized

The company had reported increases in mining and manufacturing costs on the back of a higher stripping ratio. The company indicated that the stripping ratio may come down slightly, but will still remain around 10 (from close to 12 now). Therefore, we assume mining costs will remain at elevated levels.

At the same time, most of the efficiencies have already been realized through: 1) optimal employee costs, as the company hires largely contract labour which reduces liability, 2) better yield and higher mechanization and 3) higher energy efficiency in the newer plants. We believe most of the efficiencies have been achieved in the conversion operation, which is evident as HZ has one of the lowest-cost operations globally.

Please note that despite significant increases in royalty payments, raw material costs and other expenditure, cost/t for HZ has remained flat during FY05-12 on account of efficiency achieved in operations and operating leverage achieved with capacity expansion. However from FY13F costs are set to go up, as new mines and minerals bill approved by the cabinet and to be presented in the parliament during the winter session, asks for effectively doubling of the royalty charges.

Fig. 6: There is little scope for efficiency gains/cost reduction from current levels
Per tonne costs



Source: Company data, Nomura estimates *Cost increase in FY13 is on account of additional royalty

Little clarity on cash deployment

Hindustan Zinc will have cash and equivalents of INR190bn by end FY12E and it will generate cash flow of close to INR60bn every year, according to our estimates. However it has capex plans of just INR15-20bn for the next two to three years for the development of mines and new exploration. As the government of India as a minority shareholder didn't approve the acquisition of zinc assets (held by Anglo American – which were later acquired by Sterlite Industries (STLT IN, BUY)), there has not been any productive use of cash for acquisition purposes either.

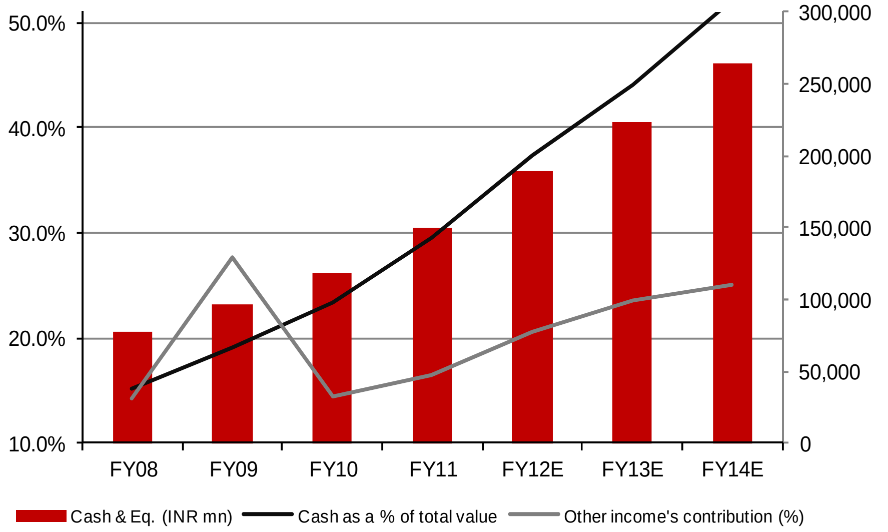
We believe the scenario may not improve until there is a decision on the sale of the remaining stake by the government. In such a scenario, we don't expect yield on the cash to improve. Any positive development on the above will be a key catalyst to watch out for. If the government agrees to sell its stake in the company, HZ can use its cash to acquire good assets which can generate a higher yield.

Strong balance sheet a key support, but upside capped

HZ has been one of the best-performing metal stocks during the past two months, primarily on account of its strong balance sheet and earnings visibility. We believe the stock will continue to have strong downside support on account of the above factors. However, we believe upside will be capped as earnings growth will be limited.

Please note in the chart below that cash and equivalents contribute more than 35%of HZ's value (on our target price) and other income contributes close to 20% of PBT (profit before tax) as per FY12 estimates.

Fig. 7: Cash and Equivalent are more than 35% of total value



Source: Company data, Nomura estimates

Valuations fair – maintain Neutral

We value HZ at 10x FY13E EPS of INR12.0 at INR120/share. Please note that cash and equivalents of INR190bn (end FY12E) will be more than 35% of total value of INR506bn on our target price. Due to the lack of any near-term catalysts, we remain NEUTRAL on the stock.

Fig. 8: Relative valuation

Company Name	Ticker	currency	Rating	Price (Local currency)	P/E (x) CY12E/FY13E	P/B (x) CY12E/FY13E	ROE (%) CY12E/FY13E	Operating margin (%) CY12E/FY13E	EV/EBITDA CY12E/FY13E
BHP BILLITON LTI	BHP AU	AUD	Not rated	34.0	7.1	2.3	27.3%	55.4%	3.9
RIO TINTO LTD	RIO AU	AUD	Not rated	59.0	6.0	1.3	21.9%	46.5%	3.5
SOUTHERN COPF	SCCO US	USD	Not rated	24.0	7.2	3.2	53.5%	62.6%	4.6
VALE SA-PF A	VALE5 BZ	BRL	Not rated	38.3	4.6	1.1	22.7%	61.2%	3.8
GRUPO MEXICO-I	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 RESOI	VED LN	GBP	Not rated	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 INDUST	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, Nomura estimates for covered companies, prices as of October 5, 2011

Sensitivity analysis

HZ FY13E EPS will change by INR 0.6 and INR 0.1 for every US$100/t change in zinc and lead prices respectively, in our view.

Fig. 9: Sensitivity analysis – FY13E EPS sensitivity to zinc and lead prices in US$/t

		Zinc prices						
		1,600	1,700	1,800	1,900	2,000	2,100	2,200
Lead prices	1,600	9.1	9.7	10.3	10.8	11.4	12.0	12.6
	1,700	9.2	9.8	10.4	11.0	11.6	12.1	12.7
	1,800	9.4	10.0	10.5	11.1	11.7	12.3	12.9
	1,900	9.5	10.1	10.7	11.3	11.8	12.4	13.0
	2,000	9.7	10.2	10.8	11.4	**12.0**	12.6	13.1
	2,100	9.8	10.4	11.0	11.5	12.1	12.7	13.3
	2,200	9.9	10.5	11.1	11.7	12.3	12.8	13.4

Source: Company data, Nomura estimates

Global zinc scenario

Stocks remain high – we expect balanced supplies

While stocks remain high, there is an improvement in the incremental demand-supply scenario. The 2011 surplus is expected to shrink to 0.6mn tonnes from close to 1mn tonnes in 2009 and 2010, as per our estimates. In terms of days of consumption, we forecast inventory should peak in 2012 at close to 133 days, and then gradually come down with the balanced demand-supply scenario.

We expect global zinc demand to grow by 4.5% in 2011 and 5.8% in 2012, down from 15.1% in 2010. Despite the strong recovery in 2010, US and European demand in 2011 would be 20% and 5% below its peak consumption in 2006, as per our estimates. China remains the key demand driver, with consumption expected to grow at 10% in 2011 (1H demand growth is close to 12% in China). Please note that we have built in 2% demand growth in the US and -5% demand growth in Europe in 2011 on account of deteriorating macro conditions. Even in China, we have built in slower growth going forward.

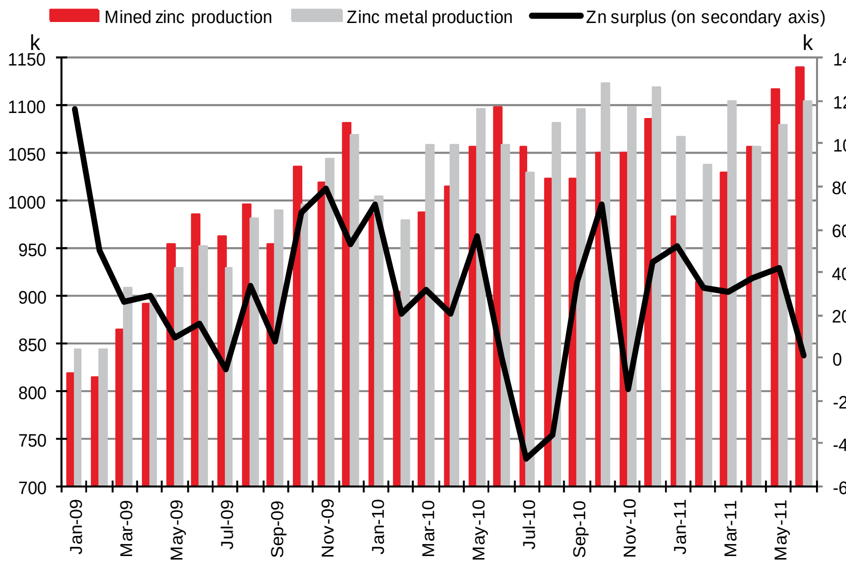
Fig. 10: Zinc – global demand supply scenario

	2007	2008	2009	2010	2011E	2012E	2013E
Zinc mine production	**10,902**	**11,452**	**11,231**	**12,136**	**12,800**	**13,364**	**13,917**
% YoY	*5.7%*	*5.0%*	*-1.9%*	*8.1%*	*5.5%*	*4.4%*	*4.1%*
Zinc slab production	**11,161**	**11,508**	**11,179**	**12,686**	**12,857**	**13,502**	**13,935**
% YoY	*6.5%*	*3.1%*	*-2.9%*	*13.5%*	*1.3%*	*5.0%*	*3.2%*
Add Secondary Zinc	881	888	754	864	876	918	948
Smelter Losses	634	648	638	701	710	746	770
Zn concentrate required	**10,914**	**11,268**	**11,063**	**12,523**	**12,692**	**13,330**	**13,757**
Surplus	(12)	184	168	(387)	108	34	160
Concentrate balance	835	1,067	1,269	873	977	1,007	1,163
in Days of consumption	*28*	*35*	*42*	*25*	*28*	*28*	*31*
Consumption							
China	3,531	3,795	4,100	4,705	5,176	5,641	6,149
USA	1,097	981	902	948	967	996	1,026
Europe	2,831	2,581	1,924	2,296	2,181	2,225	2,269
Japan	598	562	421	536	525	552	568
India	469	479	495	561	595	642	706
South Korea	535	528	426	522	548	576	593
Others	2,376	2,272	1,872	2,108	2,213	2,324	2,440
Global Consumption	**11,436**	**11,198**	**10,140**	**11,676**	**12,205**	**12,955**	**13,752**
% YoY	*2.5%*	*-2.1%*	*-9.4%*	*15.1%*	*4.5%*	*6.1%*	*6.1%*
YoY Changes							
China	11.5%	7.5%	8.0%	14.8%	10.0%	9.0%	9.0%
USA	-10.4%	-10.6%	-8.0%	5.1%	2.0%	3.0%	3.0%
Europe	21.9%	-8.8%	-25.5%	19.3%	-5.0%	2.0%	2.0%
Japan	-4.8%	-6.0%	-25.1%	27.3%	-2.0%	5.0%	3.0%
India	9.5%	2.1%	3.3%	13.3%	6.0%	8.0%	10.0%
South Korea	1.3%	-1.3%	-19.3%	22.5%	5.0%	5.0%	3.0%
Others	-17.0%	-4.4%	-17.6%	12.6%	5.0%	5.0%	5.0%
Zinc Surplus	**(275)**	**310**	**1,039**	**1,010**	**652**	**547**	**183**
Estimated total refined stock	1,152	1,436	2,522	3,532	4,184	4,731	4,914
Days of consumption	*37*	*47*	*91*	*110*	*125*	*133*	*130*
Zinc Price ($/tonne)	**3,257**	**1,874**	**1,655**	**1,970**	**2,100**	**2,000**	**2,100**

Source: Brook Hunt, Nomura estimates

Please see the figure below for surplus production during the past two years:

Fig. 11: Zinc has remained in surplus for the past two and a half years



Source: International Lead and Zinc Society

Although zinc production has remained in excess, the extent of surplus is narrowing and we expect a better demand-supply balance going forward.

Cost curve suggests zinc price support at USD2,000/t – high inventories a near-term concern

Cost curves, adjusted for the current exchange rates, suggest that even at a zinc price of USD2,000/t, almost all the global miners are profitable on account of low treatment charges (TC). At zinc prices of USD2,000/t, total TC will be close to USD220/t of concentrate for the 2011 contracts, while on the spot market it has fallen to as low as USD180-190/t. In China, imported concentrate is coming at a TC of as low as USD110-120/t, against domestic concentrate at TC of USD160-180/t.

However close to 25% of the global smelters have turned unprofitable even at contract TC (at spot TC almost 35% of the smelters will be making losses). Even for Chinese smelters, higher Shanghai Exchange prices are being compensated for by lower domestic TC. This is primarily because smelters have been hit by both lower zinc prices and falling treatment charges.

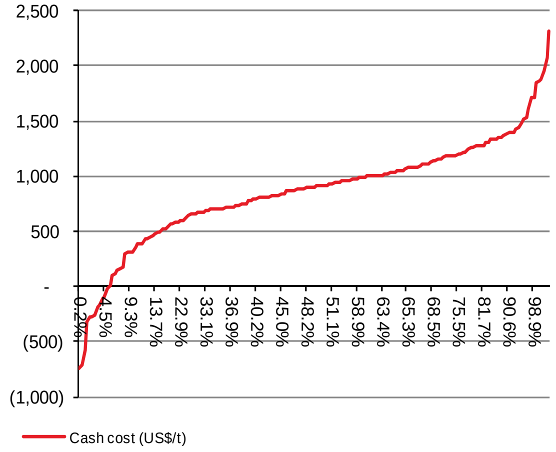
Major zinc currencies i.e. RMB, AUD and the Peruvian Nuevo Sol have remained largely flat against the USD, while the INR has depreciated by close to 8% during the past two months. Zinc's marginal cost of production has also shifted from USD2,100/t to USD2,000/t on account of lower TC (so miners' costs are lower).

We expect zinc prices to remain close to the marginal cost of production. We have accordingly reduced our zinc price estimates for 2011 and 2012 to USD2,000/t.

Please note that zinc prices could face near-term pressures on account of high inventory in the system. However, we don't expect prices to be sustained at lower levels as we believe most miners and smelters will turn unprofitable and hence supply will start to be impacted.

Fig. 12: Global zinc mining cost curve

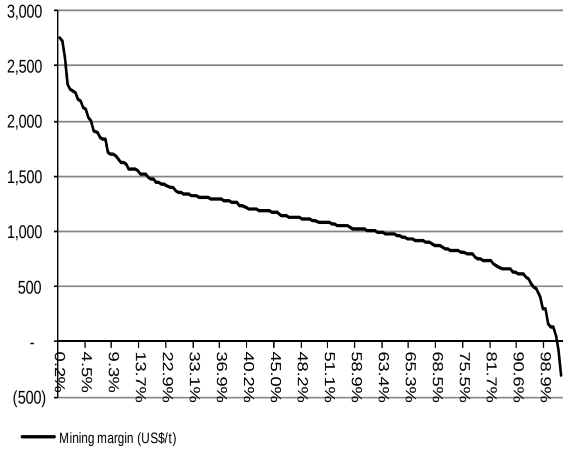
(US$/t)



Source: Brook Hunt, Nomura research

Fig. 13: Margin curve for global zinc miners

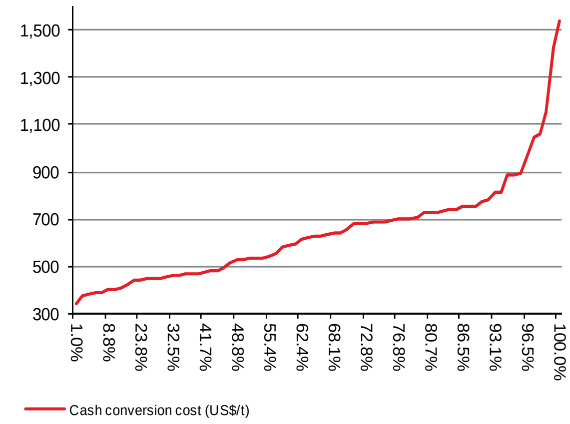
(US$/t)



Source: Brook Hunt, Nomura research

Fig. 14: Global smelting cost curve (Cash conversion cost)

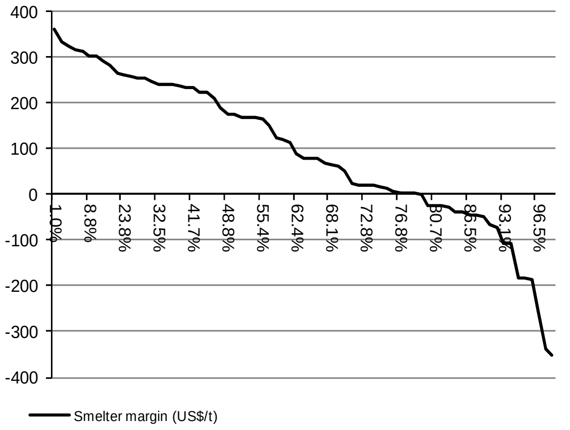
(US$/t)



Source: Brook Hunt, Nomura research

Fig. 15: Global smelting margin curve

(US$/t)



Source: Brook Hunt, Nomura research

Treatment charges (TC) should improve from current levels

Globally smelters have been hit hard both due to the fall in zinc prices (resulting in lower revenues from free metal) and lower TC. As can be seen in the chart above, mining production has lagged smelting production, resulting in falling TC. TC, which was above USD140/t of concentrate in Nov 2010, has corrected to USD125/t in the spot market in February. At the same time, 2011 contracts have been signed at USD230/t of base TC at a base price of USD2500/t of zinc and price participation of 6% and -4%. At LME zinc price of USD1,950/t, realized TC will be USD219/t of concentrate and total smelter revenue will be close to USD705/t.

At the current spot TC of USD180/t of concentrate, smelter revenue will be close to USD630/t and 35% of the smelters will be making losses, according to Brook Hunt estimates.

Fig. 16: Realized TC for smelters at current zinc prices (at contract TC)

Free Metals	11.0%
Current Zinc Price (US$/t)	1,950
Base TC (US$/ MT concentrate)	230
Base TC (US$/ MT metal)	442
PP (above US$ 2,500/t of zinc)	6.0%
PP (below US$ 2,500/t and above US$ 2,000/t of zinc)	-4.0%
Base zinc price (US$/t)	2,500
Realized TC/tonne of metal (US$)	420
Realized TC/tonne of concentrate (US$)	219
Free metals (per tonne of zinc) (US$)	215
Producer's premium	70
Total smelter revenue per tonne of zinc (US$)	705

Source: Brook Hunt, Nomura research

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.

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.

Fig. 17: Real GDP growth forecasts: baseline and downside scenarios

	2011F			2012F		
	Base case	Bear case	Extreme case	Base case	Bear case	Extreme case
Australia	2.0	1.5	0.9	4.6	3.5	3.3
China	9.5	9.0	8.5	8.6	8.8	6.0
Hong Kong	5.4	4.4	3.4	4.5	4.0	1.2
India	7.7	7.0	6.5	7.9	7.6	7.0
Indonesia	6.5	6.0	4.8	7.0	6.8	4.0
Malaysia	4.7	4.0	1.0	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	5.0	5.0	2.5
Taiwan	4.5	3.6	2.4	5.0	4.9	0.9
Thailand	4.1	3.5	0.6	4.7	4.5	-0.5
Vietnam	6.4	6.0	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

HZ – protection from cash reserves

HZ is a pure play on zinc and lead prices. Being the lowest cost producer HZ doesn't face a problem of capacity utilization; however its margins are impacted by prevailing metal prices.

HZ in a much better shape compared to 2008-09

HZ is in a much better shape both operationally and balance sheet wise compared to 2008-09. With ongoing expansion, silver will be 10-12% of total revenues compared to 4-5% in FY08-09. Silver is less vulnerable to global growth concerns and hence should provide a support. At the same time other income should increase to 20% of total earnings, from close to 14% in FY08.

At the same time HZ will have cash and equivalents of close to INR 190bn by end FY12 compared to INR 96bn in FY09. While we do see risks to zinc and lead prices, the earning impact will be much lower as a result.

Scenario analysis

In the bear case, we have built in zinc and lead prices falling to average US$ 1800/t in FY12E (US$ 1600/t in H2 FY12E) and US$ 1700/t in FY13E. In the extreme case we build in zinc lead prices averaging US$ 1700/t in FY12E (US$ 1400/t in H2 FY12E) and US$ 1500/t in FY13E.

In the above scenario, HZ will see close to 12.5% contraction in earnings in bear case and 25% in the extreme case for FY13 estimates.

Fig. 18: Earnings and target price sensitivity for HZ

(Currency)	Base case	Bear case	Downside %	Extreme case	Downside %
FY12F EPS	12.4	11.2	9.9%	10.0	19.9%
FY13F EPS	12.0	10.5	12.5%	9.0	25.0%
12-m target price	120	105	12.5%	90.0	25.0%

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.

Issuer Specific Regulatory Disclosures

Mentioned companies

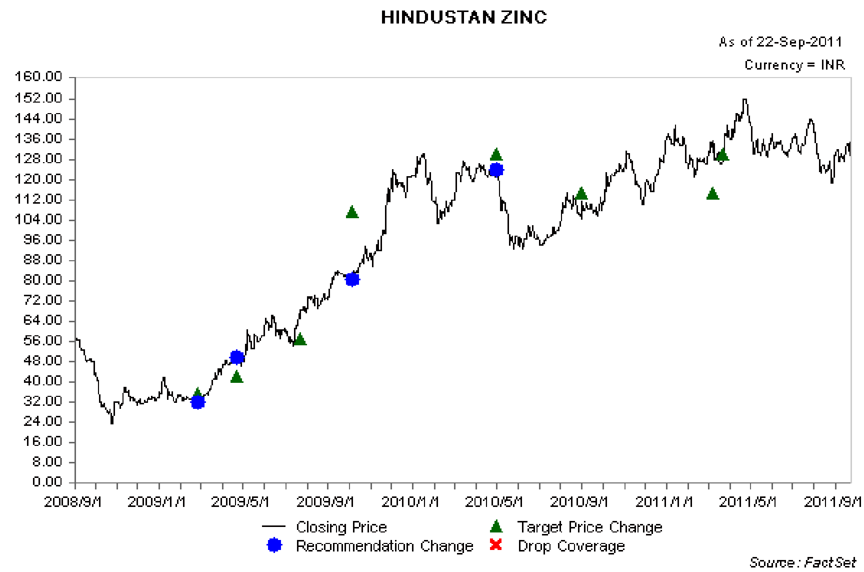
Issuer name	Ticker	Price	Price date	Stock rating	Sector rating	Disclosures
Hindustan Zinc	HZ IN	INR 112	04-10-2011	Neutral	Not rated	

Previous Rating

Issuer name	Previous Rating	Date of change
Hindustan Zinc	Buy	30-4-2010

Hindustan Zinc (HZ IN) **INR 112 (04-10-2011)** 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

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

Valuation Methodology We value HZ at 10x FY13E EPS of INR 12 at INR 120/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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Online availability of research and additional conflict-of-interest disclosures

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STOCKS

A rating of '**Buy'**, indicates that the analyst expects the stock to outperform the Benchmark over the next 12 months. A rating of '**Neutral'**, indicates that the analyst expects the stock to perform in line with the Benchmark over the next 12 months. A rating of '**Reduce'**, indicates that the analyst expects the stock to underperform the Benchmark over the next 12 months. A rating of '**Suspended'**, indicates that the rating, target price and estimates have been suspended temporarily to comply with applicable regulations and/or firm policies in certain circumstances including, but not limited to, when Nomura is acting in an advisory capacity in a merger or strategic transaction involving the company.
Benchmarks are as follows: **United States/Europe**: Please see valuation methodologies for explanations of relevant benchmarks for stocks (accessible through the left hand side of the Nomura Disclosure web page: http://go.nomuranow.com/research/globalresearchportal);**Global Emerging Markets (ex-Asia):** MSCI Emerging Markets ex-Asia, unless otherwise stated in the valuation methodology.

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A '**Bullish'** stance, indicates that the analyst expects the sector to outperform the Benchmark during the next 12 months. A '**Neutral'** stance, indicates that the analyst expects the sector to perform in line with the Benchmark during the next 12 months. A '**Bearish'** stance, indicates that the analyst expects the sector to underperform the Benchmark during the next 12 months.
Benchmarks are as follows: **United States**: S&P 500; **Europe**: Dow Jones STOXX 600; **Global Emerging Markets (ex-Asia)**: MSCI Emerging Markets ex-Asia.

Explanation of Nomura's equity research rating system for Asian companies under coverage ex Japan published from 30 October 2008 and in Japan from 6 January 2009

STOCKS

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A '**Buy'** recommendation indicates that potential upside is 15% or more. A '**Neutral'** recommendation indicates that potential upside is less than 15% or downside is less than 5%. A '**Reduce'** recommendation indicates that potential downside is 5% or more. A rating of '**Suspended'** indicates that the rating and target price have been suspended temporarily to comply with applicable regulations and/or firm policies in certain circumstances including when Nomura is acting in an advisory capacity in a merger or strategic transaction involving the subject company.

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Explanation of Nomura's equity research rating system in Japan published prior to 6 January 2009 (and ratings in Europe, Middle East and Africa, US and Latin America published prior to 27 October 2008)

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Explanation of Nomura's equity research rating system for Asian companies under coverage ex Japan published prior to 30 October 2008

STOCKS

Stock recommendations are based on absolute valuation upside (downside), which is defined as (Fair Value - Current Price)/Current Price, subject to limited management discretion. In most cases, the Fair Value will equal the analyst's assessment of the current intrinsic fair value of the stock using an appropriate valuation methodology such as Discounted Cash Flow or Multiple analysis etc. However, if the analyst doesn't think the market will revalue the stock over the specified time horizon due to a lack of events or catalysts, then the fair value may differ from the intrinsic fair value. In most cases, therefore, our recommendation is an assessment of the difference between current market price and our estimate of current intrinsic fair value. Recommendations are set with a 6-12 month horizon unless specified otherwise. Accordingly, within this horizon, price volatility may cause the actual upside or downside based on the prevailing market price to differ from the upside or downside implied by the recommendation.

A '**Strong buy'** recommendation indicates that upside is more than 20%. A '**Buy'** recommendation indicates that upside is between 10% and 20%. A '**Neutral'** recommendation indicates that upside or downside is less than 10%. A '**Reduce'** recommendation indicates that downside is between 10% and 20%. A '**Sell'** recommendation indicates that downside is more than 20%.

SECTORS

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Target Price

A Target Price, if discussed, reflect in part the analyst's estimates for the company's earnings. The achievement of any target price may be impeded by general market and macroeconomic trends, and by other risks related to the company or the market, and may not occur if the company's earnings differ from estimates.

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