

**Country: India**

**Sector: Metals and Mining**

**Pallav Agarwal**

pallav.agarwal@jmfinancial.in

Tel: (91 22) 6630 3077

**Ashutosh Somani**

ashutosh.somani@jmfinancial.in

Tel: (91 22) 6630 3083

**Niyati Jhalaria**

niyati.jhalaria@jmfinancial.in

Tel: (91 22) 6630 3088

## Key Data

Market cap (bn)	Rs 349/US\$ 7.3
Shares in issue (mn)	422.5
Diluted share (mn)	422.5
3-mon avg daily val (mn)	Rs 718/US\$14.9
52-week range	Rs 838/240
BSE Sensex (30/09/09)	17127
Nifty (30/09/09)	5084
Rs/US\$	48.1

## Shareholding Pattern (%)

	1Q FY09	1Q FY10
Promoters	64.92	64.92
FIs	2.31	1.59
MFs/FIs/Banks	0.98	1.43
Public	29.93	32.06
Others	1.86	-

## Price Performance (%)

	1M	3M	12M
Absolute	11.9	37.5	92.2
Relative*	2.6	19.3	59.0

\* To the BSE Sensex

## Daily Performance



(As of 30 September 2009)

30 September 2009

Initiating Coverage

# Hindustan Zinc

Bloomberg: HZ IN

**Hold**

**Price: Rs 826**

**Target Price (Mar 11) : Rs 787**

## Missing the zing thing...

- **Largest integrated zinc producer globally by FY11** - Hindustan zinc with ~5.9% (CY2008) share in total global production is currently the fourth largest zinc producing company globally. Expansion of lead-zinc metal capacity from the current 762ktpa to ~1mtpa by June 2010 will catapult it to the top position globally.
- **Low cost producer with captive mines & captive power** - Its high grade captive mines (Zn 11.4%; Pb 1.9%) with a mine life of over 20 years, represent 25m ton of equivalent zinc metal and 6.1m ton of lead metal. Captive power plants (437 MW) meet ~80% of its requirements placing it in the lowest deciles of global cost curve. Decline in international coal prices and sourcing from domestic linkages will reduce power costs further.
- **Zinc medium term price outlook to remain subdued**- We believe that the recent run-up in zinc prices (55% YTD returns) would be capped due to slowing imports from China, high inventory levels and incremental supplies of ~1.1m ton of Chinese smelting capacities waiting on the sidelines. ILZSG expects a surplus of ~ 299k tons in 2009 and ~ 397k tons in 2010. Zinc is trading at ~US\$1,900/ton on LME which is 47% higher than the 90<sup>th</sup> percentile cash cost of US\$1,296/ton.
- **Valuations** – Presence in the lowest deciles of global cost curve, aggressive capacity ramp up to 1mtpa (June 2010) and strong balance sheet with net cash of Rs228/ share, positions the company to benefit the most in case of demand and price recovery. However, a subdued price outlook for zinc coupled with a sharp run up in stock price (~144% YTD) caps further upside. We value the stock at Rs 787/ share based on 5x FY11E EV/EBITDA. We initiate coverage with a HOLD rating.

## Exhibit 1: Financial summary

(Rs mn)

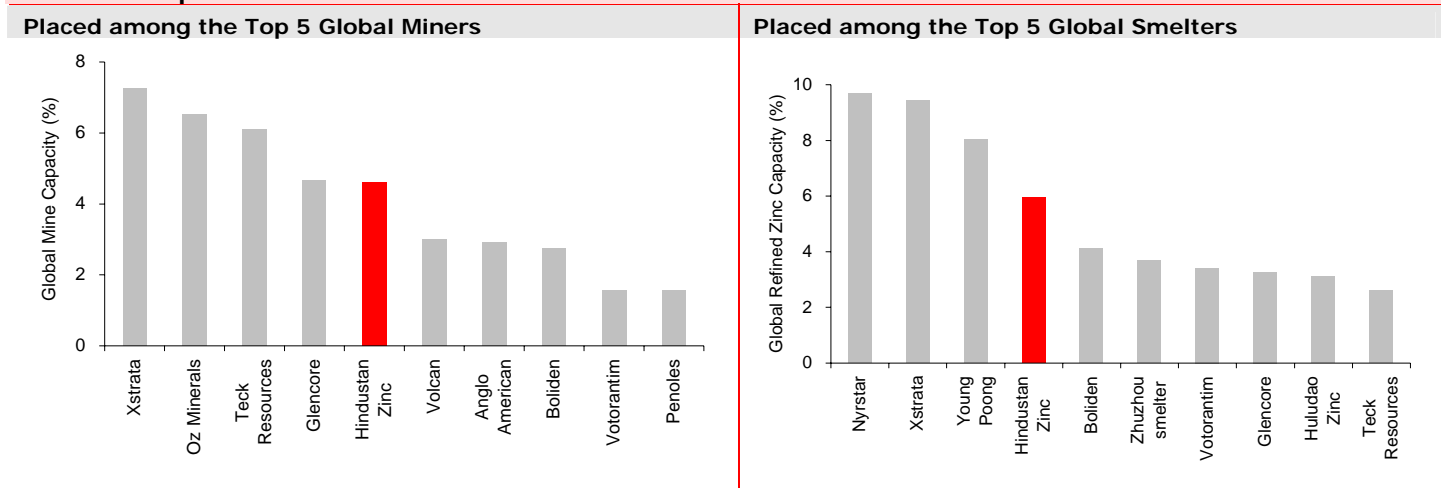
Y/E March	FY07	FY08	FY09	FY10E	FY11E
Net sales	86,032	79,588	57,760	68,426	74,327
Sales growth (%)		-7.5	-27.4	18.5	8.6
EBITDA	64,499	54,594	28,298	35,862	39,399
EBITDA (%)	75.0	68.6	49.0	52.4	53.0
Adjusted net profit	43,248	40,272	26,209	32,565	36,186
EPS (Rs)	102.4	95.3	62.0	77.1	85.6
EPS growth (%)		-6.9	-34.9	24.3	11.1
ROCE (%)	83.4	47.6	22.8	23.5	21.8
ROE (%)	56.7	34.0	18.3	18.7	17.4
PE (x)	8.1	8.7	13.3	10.7	9.6
Price/Book value (x)	4.6	2.9	2.4	2.0	1.7
EV/EBITDA (x)	4.7	5.0	8.9	6.4	5.4

Source: Company data, JM Financial. Note: Valuations as of 30 September 2009.

## Investment highlights

Hindustan zinc is the fourth largest zinc producing company globally (in 2008) with ~5.9% share in total global production. The company with its 669ktpa of zinc capacity is the leading producer of zinc in India with the only other producer Binani Zinc boasting a capacity of ~38 ktpa. Presence in the lowest deciles of global cost curve facilitated by captive mines and power plant, aggressive capacity ramp up to 1mtpa (June 2010) and strong balance sheet with net cash of Rs228/ share, positions the company to benefit the most in case of demand and price recovery.

**Exhibit 2: Top Global Miners & Smelters**



Source: Nyrstar

## Expansion to ~1mtpa preparing ground for demand revival

HZL is expanding its combined lead-zinc metal capacity from the current 762ktpa to ~1mtpa by June 2010 with the commissioning of two brown-field smelters at its Rajpura Dariba complex in the state of Rajasthan. We believe that in a subdued pricing environment, expansions by HZL will prepare the company to take advantage of any demand revival. In the past, the management has undertaken capacity expansions with efficient specific cost per ton of metal and operational excellence.

**Exhibit 3: ~1 MTPA Smelting Capacity by June 2010**

	ZINC	Cap.		LEAD	Cap.
Year	Location	(ktpa)	Year	Location	(ktpa)
1968	Debari (Hydromet)	80	1991	Chanderiya (Pyromet)	35
1977	Vizag (Hydromet)	56	2005	Chanderiya (Ausmelt)	58
1991	Chanderiya (Pyromet)	105		Total	93
2005	Chanderiya (Hydromet)	170		Expansion	
2008	Chanderiya (Hydromet debottleneck)	88	Jun-10	Rajpura Dariba	100
2008	Chanderiya (Hydromet)	170			
	Total	669			
	Expansion				
Jun-10	Rajpura Dariba	210			
	Total	879		Total	193

Source: Company data, JM Financial

- Mining ore capacities to increase by ~30% to ~9.3mtpa by June 2010:** HZL is the only integrated zinc producer in India. The company operates underground mines (Rajpura Dariba, Sindesar Khurd, Zawar and Kayar) and an open cast mine Rampura Agucha, which is one of the most cost-efficient zinc mines in the world. The Rampura Agucha mining capacity has been increased to 5mtpa in FY08 from 3.75mtpa in FY05, which will be further ramped up to 6mtpa by June 2010. The company also plans to expand Sindesar Khurd mining capacity from 0.3mtpa to 1.5mtpa by mid 2010. The combined reserve base of the mines is ~89 m ton, with mine life of over a decade.

#### Exhibit 4: Mining Capacity Expansions

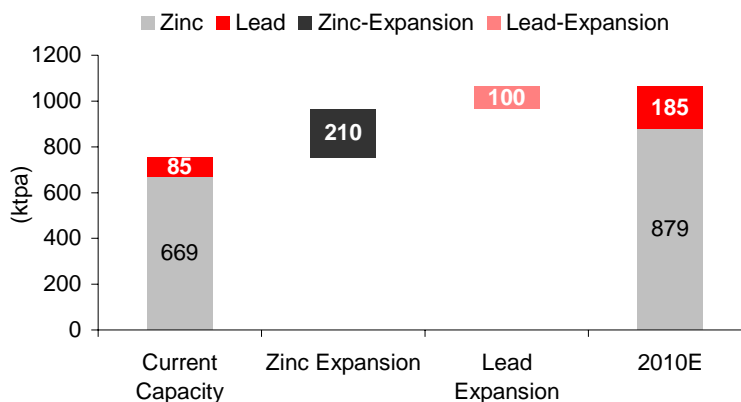
Year	Mines	Existing (mtpa)	Jun-10 (mtpa)	Total (mtpa)
1991	Rampur Agucha (open cast)	5	1	6.0
1983	Rajpura Dariba (underground)	0.6		0.6
1977	Zawar II (underground)	1.2		1.2
2006	Sindesar Khurd	0.3	1.2	1.5
	<b>Total</b>	<b>7.1</b>	<b>2.2</b>	<b>9.3</b>

Source: Company data, JM Financial

- Increased smelting capacities to drive volume CAGR growth of 6% over FY09 – FY11E**

HZL has current capacities of 669,000 tpa of zinc smelting and 93,000 tpa of lead smelting expanding aggressively from its modest beginnings of 169,000 tpa of zinc smelting capacity in 2002. The company has further undertaken two brown-field smelters which are expected to increase capacities of zinc and lead by 210,000 tpa and 100,000 tpa respectively at its Rajpura Dariba complex in the state of Rajasthan. The commissioning is scheduled in June 2010. The combined lead-zinc capacity post expansion will stand at ~1mtpa. HZL will also increase silver production from the current 105,055 kgs to over 332,000kgs per annum by FY11E.

#### Exhibit 5: ~1 MTPA Smelting Capacity by June 2010



Source: Company data, JM Financial

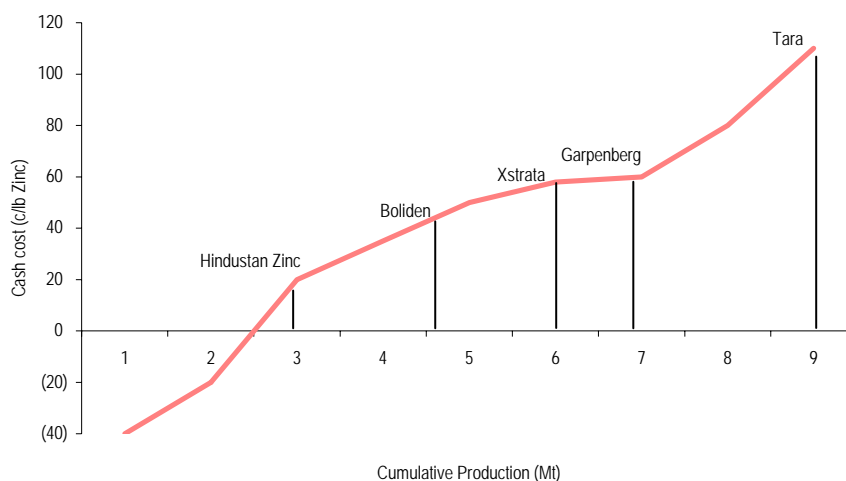
Exhibit 6: Aggressive Volume Ramp-up						('000 tons)
Capacity	FY07	FY08	FY09	FY10E	FY11E	CAGR FY07-11 (%)
Zinc Metal	411	581	669	669	879	20.9
Lead Metal	85	93	93	93	193	22.7
Sales						
Zinc metal	350	426	552	585	615	15.2
Lead metal	45	58	61	72	85	13.6
Zinc concentrate - DMT ( Exports )	254	232	76	109	138	-
Silver – (kgs)	49	82	103	111	221	45.5
Sulphuric acid	610	652	975	1,045	1,118	16.3

Source: Company data, JM Financial

## Low cost producer globally - fully integrated

HZL's presence across the zinc value chain, right from mining of ore to manufacturing zinc ingots, provides it a natural hedge against highly volatile prices and fluctuating treatment charges (Tc). Standalone smelters purchase concentrate from miners at the market price of zinc and receive Tc in return, based on concentrate availability and smelting capacity demand-supply outlook of the base metal. Thus, the smelters incur the risk of reduced Tc from miners. HZL is insulated from volatility in Tc as it is an integrated player and boasts of lower and stable costs of production. High grade (13.36%) zinc reserve base of ~68mton in Rampura Agucha, 437 MW (314 coal based+ 123 wind energy) of captive power plants and cost effective hydro-metallurgical smelters places the company in the lowest deciles of the global cost curve for zinc producers.

## Exhibit 7: Amongst the lowest cost zinc mines globally



Source: Boliden, JM Financial

- High grade, low cost captive ore mines sufficient for decades:**  
Hindustan zinc sources all of its lead-zinc ore requirements from its captive mines in Rampura Agucha, Zawar, Rajpura Dariba and Sindesar Khurd spread across the state of Rajasthan. These mines total 88.9mton of proven reserves and 183 m ton of indicated and inferred resources, equivalent to ~ 25m tons of refined zinc MIC and ~ 6.1m tons of lead MIC.

**Exhibit 8: Reserve Summary**

MINES	ORE MINED ( <sup>'000</sup> ton)	RESERVES (m ton)	ZINC (%)	LEAD (%)	LIFE (Years)
Rampura Agucha	4,953	68	13.4	1.9	20
Rajpura Dariba	483	7	6.3	1.6	13
Zawar II	944	7	3.8	2.1	19
Sindesar Khurd	299	6	5.3	2.8	16
<b>Total</b>	<b>6,679</b>	<b>89</b>	<b>11.4</b>	<b>1.9</b>	
MIC		10.1		1.7	
Total resources (m tons)		183	8.3	2.4	
MIC		15		4.4	
Total Reserves & Resources		272			
<b>Total MIC</b>			<b>25</b>	<b>6.1</b>	

Source: Company data, JM Financial

Rampura Agucha mine in Bhilwara district of Rajasthan, with its reserve base of ~67.88 m tons ranked fourth globally on a reserve basis in 2008, according to Brook Hunt. It is an open-cast mine with a low strip ratio (7.27 tons of waste/ ton of ore mined) and high grade of zinc at 13.36% as compared to the global average of ~6%. This deposit produced 1.1 m tons of zinc concentrate and 92,151 tons of lead concentrate with a recovery of 92% and 60.6% for zinc and lead respectively in FY09. At the current rate of production the mine is expected to have a life of 20 years from April 1, 2009.

While Red Dog of Teck Resources (the world's third largest miner) is located in Alaska, Century mine of OZ minerals (the second largest global miner) is in Australia's Queensland province. HZL, on the other hand, has geographical advantage over peers as it operates from a country that offers cheap labor, has high-quality captive mines and captive power leading to reduced energy costs.

■ **Captive coal-fired power stations to reduce conversion costs:**

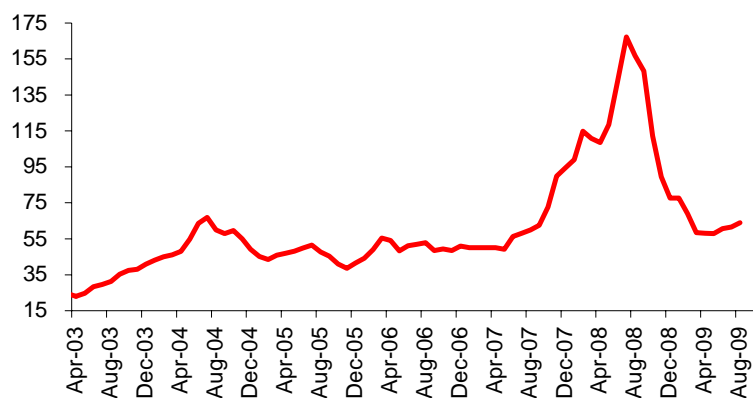
HZL has an installed thermal power capacity of 234MW at Chanderiya (3 units of ~77MW each) and 80MW at Zawar that is solely utilized for captive purposes. The company is further setting up a 160 MW (2\*80MW) thermal power plant at Rajpura Dariba by June 2010 to meet the energy requirements for expanded operations (1mtpa expansion).

Sourcing of coal to fuel the captive plants have so far been met by market purchases through both domestic sources and imports. The company has been allotted a coal block (HZL's share is ~31.5m ton) in Madanpur block in a consortium with five other partners in January 2006. Sourcing from this captive mine and the secured ~1.6m ton coal linkage granted by Coal India will bring down the fuel costs further for these captive power plants. Decline in international coal prices and increased sourcing from linkages will reduce power costs further.

**Exhibit 9: Captive power plants**

Location	Type	MW	Remarks
Chanderiya	Coal Based	234	~31.5m ton coal from Madanpur to bring down costs further
Zawar	Coal Based	80	
Samana	Wind energy	89	Continues to benefit from Tax incentives
Gadag	Wind energy	34	
Total		437	
Expansion			
Rajpura Dariba	Coal based	160	By mid 2010
Total		597	

Source: Company data, JM Financial

**Exhibit 10: Declining Thermal Coal prices (Richard Bay Index)**

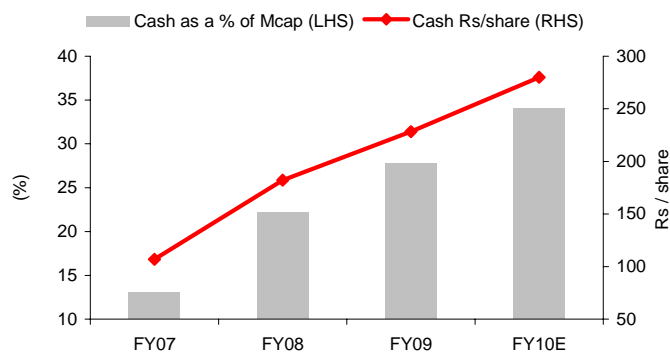
Source: globalcoal.com

### Strong cash flows & un-leveraged balance sheet

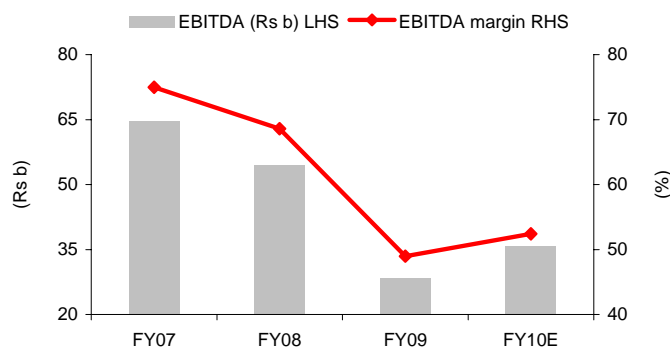
The company has maintained margins of above 50% in the last few years, its capex requirements have not moved as much, thereby generating huge free cash flows. Strong focus on cash conversion in FY09 has ensured strong cash on the balance sheet of Rs 228/share, despite total capital expenditure of Rs13.4b during the year. Tax saving initiatives have helped push down the current tax rate from 28.5% in FY08 to 16.4% in FY09. We estimate the company to have Rs282/share (cash + investment) by end- FY10E. The company has zero debt in its balance sheet currently.

**Exhibit 11: Cash Balance and EBITDA Margins**

#### EXPECTED CASH OF Rs. 282/SHARE



#### EXPECTED MARGINS OF ABOVE ~50%



Source: Company data, JM Financial

## Strong project execution track record

In a capital-intensive industry, HZL boasts of an efficient management, which is essential for timely project commissioning at low capital, thereby ensuring significant competitive advantage. HZL's expansions vindicate its strategy of rapid execution in a cost effective manner:

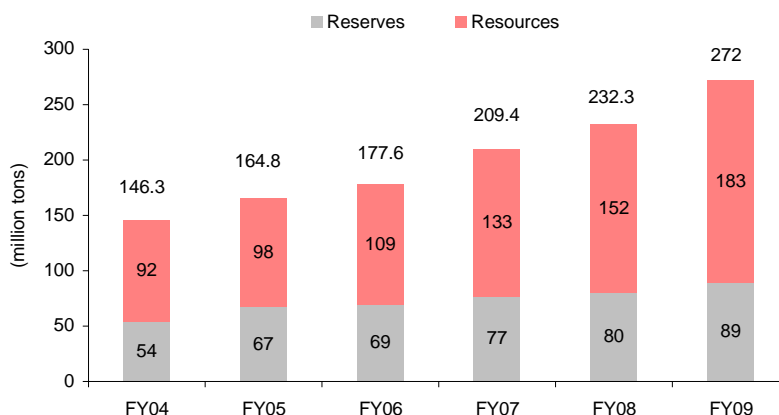
**Exhibit 12: Timely project executions**

PROJECT	Timeline (months)		Costs (US\$/ton)	
	Execution	Benchmark	Actuals	Benchmark
Phase I, Chanderiya smelter (170ktpa)	22	27	1,000	1,500
Phase II, Chanderiya smelter (170ktpa)			600	1,500
2 units of 77 MW CPP	22	24		

Source: Company data, JM Financial

Post the acquisition of majority stake in HZL, Sterlite increased HZL's zinc reserve base 5x and effected many operational efficiencies that resulted in reduced cash cost of zinc production. Aggressive exploration initiatives led to ~28.7 m ton increase in mineral resources in FY08. We believe that HZL is well on track to achieve it's ~1mtpa metal production target, given the efficient management and ongoing operational improvements.

**Exhibit 13: Aggressive exploration Led to reserve expansion**



Source: Company data, JM Financial

## Zinc Price Outlook

### CY2008 was a year of surplus...

World zinc consumption increased by 0.5% in 2008 to 11.4 m tons while world refined zinc production rose by 1.7% to 11.5 million tons, leaving the market with a surplus of 186,000 tons refined zinc. This was reflected in rising zinc stocks on the London Metal Exchange (LME) ending the year at 253,000 tons of inventory.

**Exhibit 14: Global Zinc demand supply balance**

(000 tons)	2002	2003	2004	2005	2006	2007	2008
Mine Production	6,465	9,520	9,735	10,146	10,444	11,129	12,144
yoy change (%)		47.3	2.3	4.2	2.9	6.6	9.1
Metal production	6,669	9,913	10,396	10,224	10,655	11,356	11,553
yoy change (%)		48.6	4.9	-1.7	4.2	6.6	1.7
Metal Consumption	7,118	9,841	10,651	10,611	10,972	11,309	11,367
yoy change (%)		38.3	8.2	-0.4	3.4	3.1	0.5
Metal Balance	-449	72	-255	-387	-317	47	186

Source: ILZSG, JM Financial

### China dominated with ~33% share in both production and consumption....

China continued to be the heavy weight in the global zinc industry, controlling ~33% of the global zinc production and consumption in 2008. Refined-zinc metal production in China grew by 4.5% in 2008 to 3.9 m tons while consumption grew at 11.6% to 4m tons.

**Exhibit 15: China Zinc demand supply balance**

(000 tons)	2003	2004	2005	2006	2007	2008
Metal production	2,319	2,720	2,776	3,163	3,743	3,913
yoy change (%)	7.6	17.3	2.1	13.9	18.3	4.5
Metal Consumption	2,350	2,820	3,037	3,115	3,597	4,014
yoy change (%)	16.9	20.0	7.7	2.6	15.5	11.6
Metal Balance	-31	-100	-261	48	146	-101

Source: ILZSG, JM Financial

### Response to recession-sharp cut backs in production

Zinc smelters responded rapidly to the downturn in zinc demand toward the end of 2008. The response of the zinc industry was much more disciplined than the ones implemented in the past downturns, removing sizable mining and smelting capacity within a quarter.

**Exhibit 16: Mine Production cuts announced in 2009**

Mine	Country	('000 tons)	Mine	Country	('000 tons)	Mine	Country	('000 tons)
Hellyer Concs	Australia	30	Black Angel	Greenland	17	Langlois	Canada	54
Scuddles	Australia	25	Galmoy	Ireland	47	Caribou/Restigouche	Canada	50
McArthur River	Australia	38	Tara	Ireland	15	Chisel North/Snow Lake	Canada	24
Endeavour	Australia	16	Shalkiya	Kazakhstan	11	Caijiaying	China	22
Rasp	Australia	35	El Monte	Mexico	30	Neves Corvo	Portugal	25
Potosi	Australia	55	Pallca	Peru	11	Gordonsville	USA	54
Handlebar Hill	Australia	45	Rosaura	Peru	33	Pend Oreille	USA	18
Monte Cristo	Brazil	15	Iscaycruz	Peru	145	Young, Immel, Coy	USA	40
Myra Falls	Canada	50	Aljustrel	Portugal	25	Total		930

Source: ILZSG, JM Financial

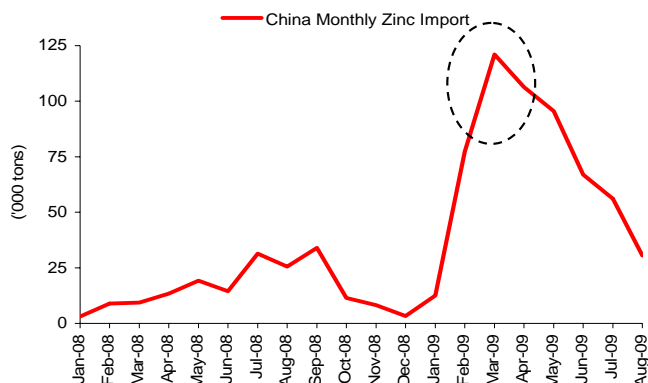


## Strong imports from China led to price recovery.....

However, strong import demand from China emanating from its US\$486b infrastructure related fiscal stimulus, end of de-stocking period across metals, sharp production cut backs by producers in response to demand pullback, revival in global economic activity combined with dollar weakness, has led to the recovery of commodity prices in 1HCY09 from record low prices in 2HCY08.

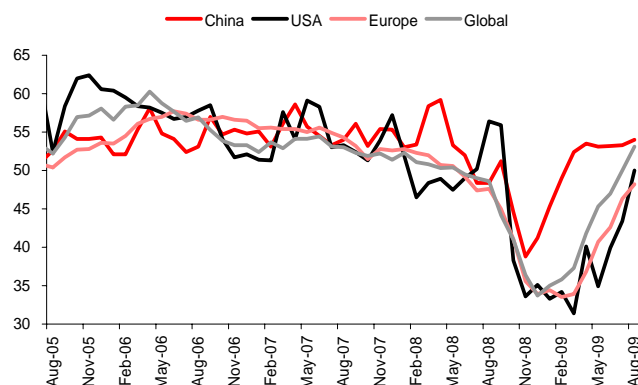
### Exhibit 17: Prices up from Cyclical Lows

#### STRONG IMPORTS FROM CHINA FROM JAN TO APRIL 09



Source: CBI China, JM Financial

#### REBOUND OF PMI GLOBALLY



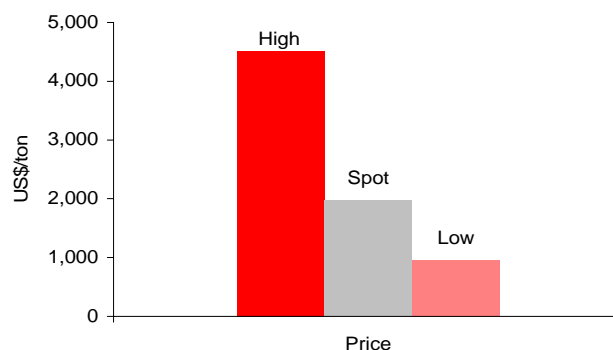
Source: Bloomberg, JM Financial; Note: PMI stands for Purchasing manager's index

#### DOLLAR INDEX NEAR OLD LOWS



Source: Bloomberg, JM Financial

#### ZINC PRICES UP FROM CYCLICAL LOWS (SINCE 2003)



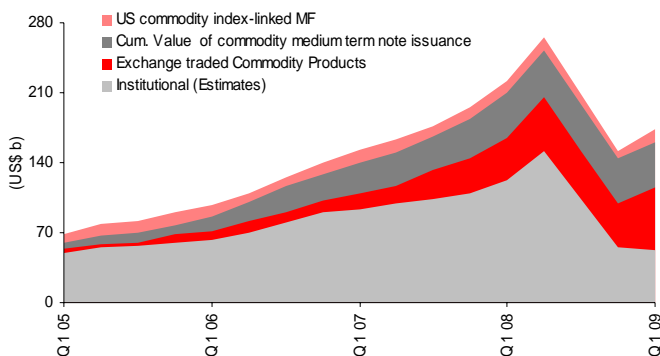
Source: Bloomberg, JM Financial

## Price recovery further aided by strong funds flow

Assets under management (AUM) of the commodity funds have increased ~2.5x in 4 years. Prices of all commodities increased significantly as AUMs for commodity funds peaked in 2QCY08. Prices across commodities declined sharply in 4QCY08 due to strong outflows of speculative money from funds. AUM's for commodity funds recovered from its December 2008 lows during 1QCY09 on the hopes of an economic recovery.

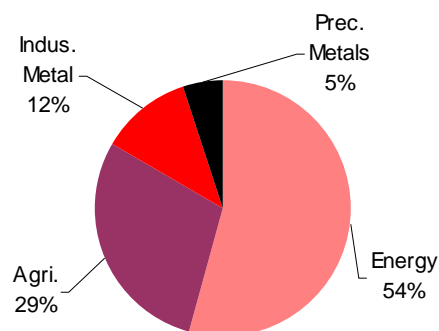
**Exhibit 18: Fund flows in commodities**

**COMMODITY FUNDS – AUM (US\$ b) INCREASED ~2.5x**



Source: Industry, Barclays

**COMPOSITION OF COMMODITY INDEX (AVG.)**



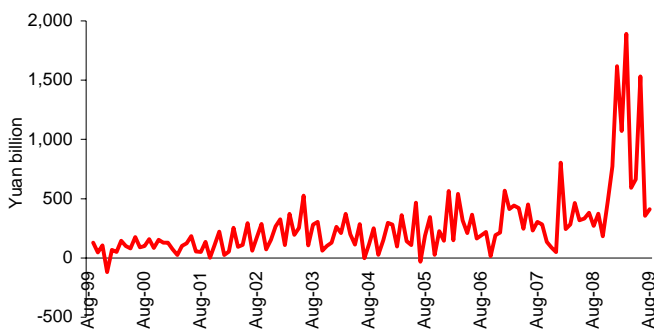
Source: Industry

**However, Chinese imports added to inventory rather than actual consumption.....**

China imported ~ 0.57m tons of zinc since the beginning of the year 2009 backed by the State reserve bureau's aggressive accumulation of commodities to secure its infrastructure needs for the future and support domestic smelters. The strong surge in imports was induced by the higher prices prevailing in Shanghai futures exchange (SHFE) compared with the LME. Excess liquidity generated in the system abetted by unprecedented loan growth further encouraged accumulation of commodities.

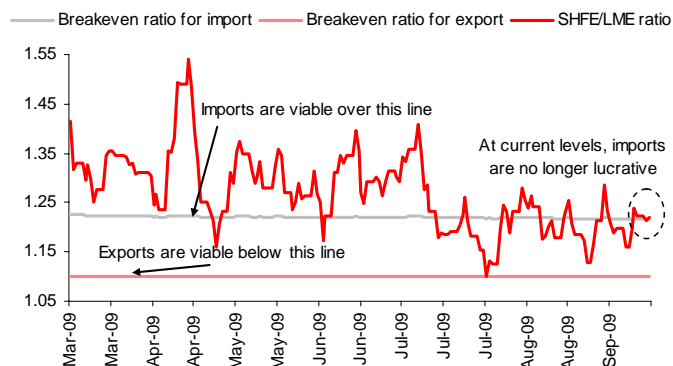
**Exhibit 19: Price Arbitrage**

**CHINESE NEW LOANS**



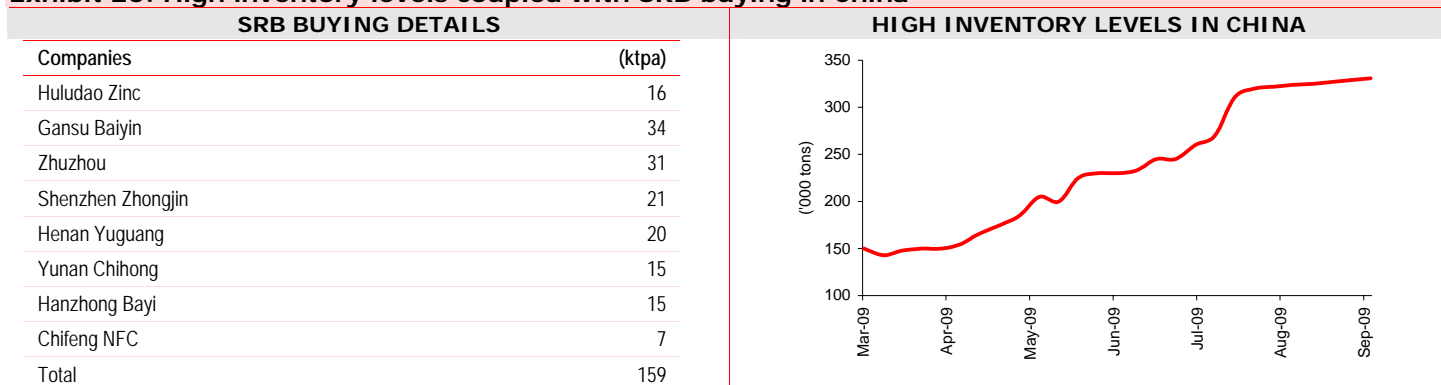
Source: Bloomberg

**IMPORTS INDUCED BY PRICE ARBITRAGE**



Source: CBI China

The state reserve bureau (SRB) has accumulated 1,59,000 tons of zinc since January 2009. The SRB has laid down a target of ~4,00,000 tons to be achieved over a period of three years. ~40% of the target has already been achieved at an average price of US\$1,680/ton. China has imported ~566 k tons of refined zinc in the period Jan- Aug 2009. Chinese inventory stands at a total of ~331 ktons in the ports of Shanghai, Guangdong and Tianjin combined. The sum total of inventories in ports and ~159 ktons of SRB stocks add up to 490ktons of zinc inventory, ~87 % of total imports YTD.

**Exhibit 20: High inventory levels coupled with SRB buying in China**


Source: ILZSG

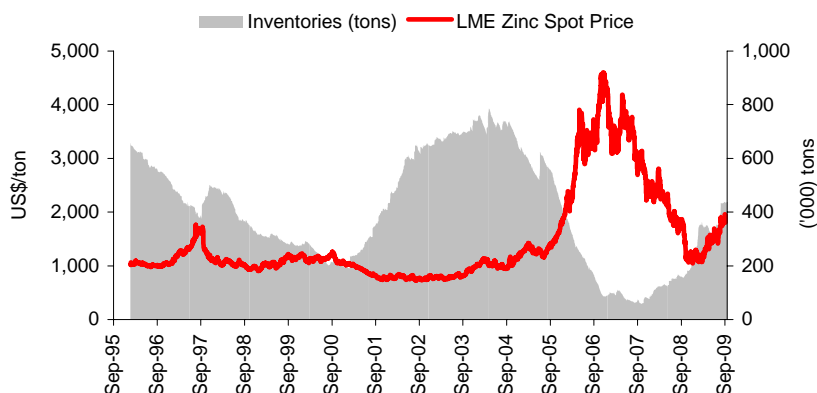
Source: CBI China; Note: Inventory in SHFE, Guangdong and Tenzin

However, China's import has lost momentum with the SRB's accumulation drive nearing the set targets for the year. China's zinc import declined 46% MoM in August to ~30,516tons. The actual demand emanating from genuine industrial needs is yet to resurface in China post the slowdown. We believe that the import activity in China will continue to lose steam in the face of muted demand from the economy and very high levels of inventory yet to be utilized. We believe that China's real consumption of refined zinc is ~10% adjusted for the change in inventories and the stocks held by the state reserve bureau. The apparent consumption growth of ~22% is therefore misleading as it is not adjusted for change in inventory levels and stock accumulation by SRB. We believe that imports from China will cease to be the driving force for commodity prices in the near future.

**Exhibit 21: China's real consumption growth is only ~10%**

('000 tons)	Prodn.	Import	Export	Apparent Cons.	(YoY (%))	Inventory change	SRB Stocks	Real Cons.	(YoY (%))
Jan-09	235	13	1	247	-15	-4		250	-12
Feb-09	265	77	2	340	26	6		334	38
Mar-09	340	121	1	460	44	14		446	40
Apr-09	335	106	0	441	36	22		419	28
May-09	336	96	0	432	22	35		397	11
Jun-09	367	67	2	432	14	33		399	5
Jul-09	376	56	1	431	21	77		354	1
Aug-09	415	31	0	446	26	15		431	22
YTD	2,669	566	7	3,228	22	198	159	2,871	10

Source: CBI China, JM financial

**Exhibit 22: Zinc LME price & inventory graph**


Source: Bloomberg, JM Financial

## ~1.1m ton Chinese new capacities waiting on the sidelines; caps further price rise....

The world zinc market is expected to be in surplus through 2009E and 2010E, with huge capacities in zinc mining and refining expected to come up and with demand lagging behind supply. Incremental capacities to the tune of ~1.1 m tons or ~9% of total current global capacity is waiting on the sidelines. These planned capacities may be deferred or delayed depending on the market conditions but may come on stream with prices inching northwards.

**Exhibit 23: Planned new capacities in China ('000 tons)**

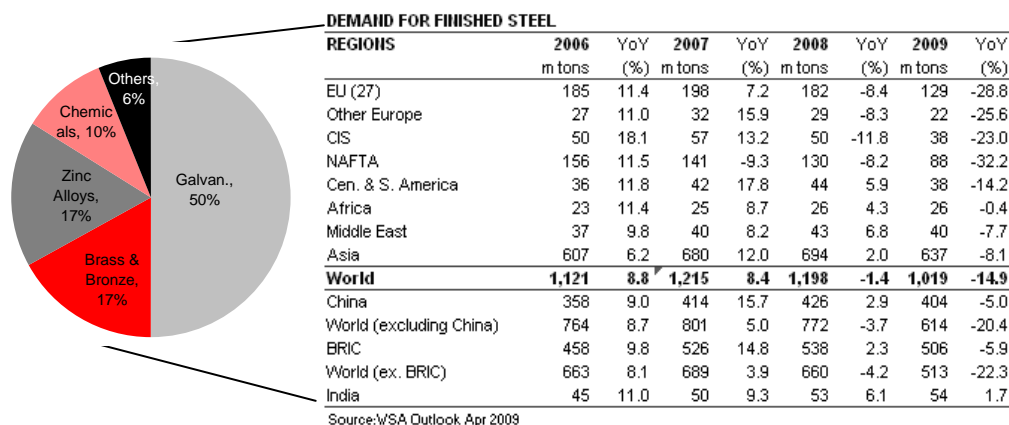
Smelters	Addnl.	Total	Comm. Date	Remark
Bayan Zhuoer Zijin	100	200	2nd half of 2009	
Hunan Zhuye	100	500	Mid 2009	Commissioned but not operational
Yunnan Copper Industry	40	100	Mid Aug, 2009	Trial run
Yunnan Chihong	100	260	2nd half of 2009	Commissioning on schedule
Zhongjin Lingnan	80	310	Jul, 2009	Operational
Sichuan Hongda	100	320	2nd half of 2009	Commissioning on schedule
Henan Sanli	60	140	2nd half of 2009	Tentative
Luopin Xindian	40	120	Jun, 2009	Operational
Gansu Baohui	100	160	2nd half of 2009	
Xichang Zinc	40	100	2nd half of 2009	Tentative
Inner Mongolia Xing'an	100	100	Jul, 2009	Operational
Hangzhong Zinc	140	260	Sep, 2009	Commissioning by end of year
Gansu Baiyin	100	200	Oct, 2009	
<b>Total</b>	<b>1,100</b>			

Source: CBI China, JM Financial

## Demand unlikely to resurface in a hurry

Zinc is mainly used in galvanizing steel (to prevent corrosion) and manufacturing alloys such as brass. 50% of global demand for zinc comes from the steel industry. However, with global recession affecting steel demand, we expect demand for finished steel to de-grow in line with the projections made by World steel authority (WSA).

**Exhibit 24: First use Zinc markets**



Source: WSA Outlook Apr 2009, JM Financial

## Assumption of US\$1700/ton for zinc

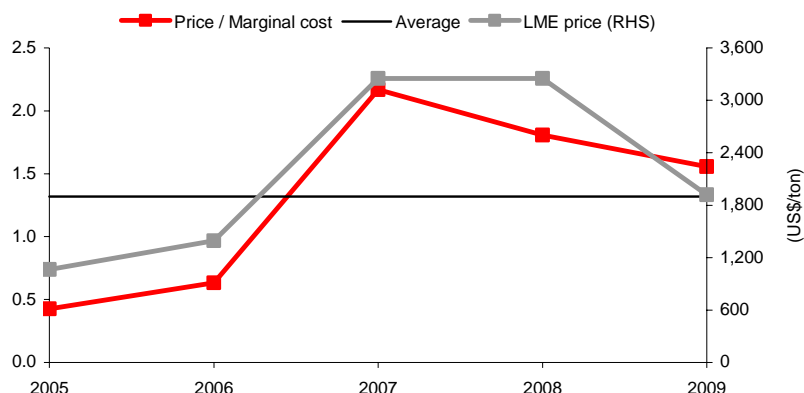
We expect a surplus in 2009 and 2010 in line with the forecasts made by International Institute of Zinc and lead. ILZSG expects a surplus of ~ 299k tons in 2009 and ~ 397k tons in 2010. Zinc prices are trading at US\$1,900/ton on LME which is 47% higher than the 90<sup>th</sup> percentile cash cost of US\$1,296/ton. The price to marginal cost ratio for zinc stands at 1.5x, lower than the highs of 2.2x but still higher than the average of ~1.3x. We believe that zinc prices will correct from its current levels of US\$1,900/ton, nearing its average price to marginal cost ratio of 1.3x. We have assumed zinc prices of US\$1700/ton for FY10E and US\$1,750 for FY11E.

**Exhibit 25: Surplus expected in 2009 & 2010**

(000 tons)	2005	2006	2007	2008	2009E	2010E
Mine Production	10,146	10,444	11,129	12,144	10,514	10,981
yoy change (%)	4.2	2.9	6.6	9.1	-13.4	4.4
Metal production	10,224	10,655	11,356	11,553	10,612	11,313
yoy change (%)	-1.7	4.2	6.6	1.7	-8.1	6.6
Metal Consumption	10,611	10,972	11,309	11,367	10,313	10,916
yoy change (%)	-0.4	3.4	3.1	0.5	-9.3	5.8
Metal Balance	-387	-317	47	186	299	397
LME(3M) average US\$/ton	1,393	3,248	3,249	1,907	1,700	1,750

Source: ILZSG, JM Financial

**Exhibit 26: Marginal cost v/s spot prices**



Source: Industry, Bloomberg, JM Financial

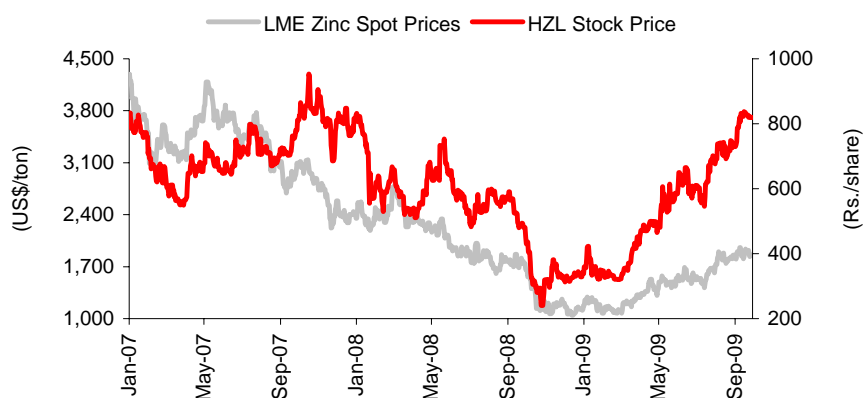
## Key Risks

The profitability and operations of Hindustan Zinc are subject to risks from sharp volatility in zinc prices on the LME, higher than expected rupee appreciation, increased mining & royalty cost and withdrawal of tax incentives to various plants of the company. Any exposure to these risks can adversely impact the overall operations of the company.

### Earnings are sensitive to zinc prices

Zinc has traded at a low of US\$ 959/ton and high of US\$ 4,515/ton in its current cycle starting from late 2003, very close to testing its old lows as recently as January 2009 at US\$ 959/ton. The spot prices are now hovering at around ~1,900/ton. Hindustan zinc's profitability is sensitive to zinc prices. A 5% change in zinc prices can change earnings by as much as ~6.3% partly cushioned by the huge other income generated by the company on cash equivalents (Rs 96.5b end FY09).

**Exhibit 27: Strong correlation between Zinc price & HZL price**



Source: Bloomberg, JM Financial

### Earnings are highly sensitive to exchange rates

Rupee appreciation against the dollar will have an adverse impact on the profitability of Hindustan Zinc. A 5% appreciation in the INR can change earnings by as much as ~8%.

**Exhibit 28: Sensitivity of EPS to prices & INR (Base case EPS of Rs 77)**

		ZINC US \$/TON PRICE ASSUMPTION				
INR/US\$	77.1	1,500	1,600	1,700	1,800	1,900
	46.0	61.3	66.8	72.3	77.7	83.2
	47.0	63.4	69.1	74.7	80.3	85.9
	48.0	65.6	71.3	77.1	82.8	88.5
	49.0	67.8	73.6	79.5	85.3	91.2
	50.0	69.9	75.9	81.9	87.9	93.8

Source: JM Financial

## Change in royalty structure and increased mining cost can hamper margins

~91% of the total mined metal in zinc concentrate during FY09 was produced by the company's Rampura Agucha mine. Operations are completely dependent on the reserves and the low cost associated with this particular mine. With the increase of reserves and contribution to over all production from other mines the blended cost of mining may increase, impacting the margins of the business. Depletion of mines will also increase extraction costs per mine.

Change in tariffs, royalties and customs duties may reduce the premium enjoyed by the company in the Indian domestic market. HZL paid royalties to the state govt. of Rajasthan at 6.6% of the LME zinc price and 5% of the LME lead price during FY09 totaling to Rs 2,743/ton of concentrate produced in FY09. This is however subject to change. The royalty rates have now been changed to 8.4% for zinc and 7% for lead effective from September 2009. Any upward revision will impact earnings negatively.

### Exhibit 29: Current royalties & duty structure

Royalty rate	FY07	FY08	FY09	FY10E
Zinc	6.6%	6.6%	6.6%	7.7%
Lead	5.0%	5.0%	5.0%	6.2%

Source: Industry, JM Financial; Note: FY10 numbers are average rates

## Withdrawal of tax incentives by GOI can reduce profitability

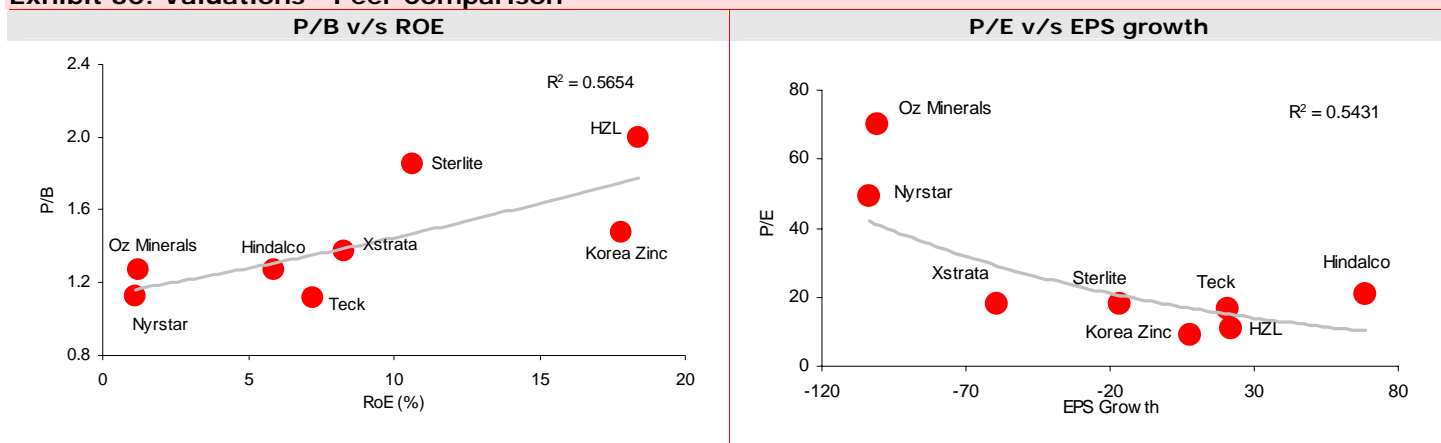
HZL currently benefits significantly from tax holidays and exemptions. HZL's captive power plant at Debari benefits from tax exemptions on profits generated from transfer of power to HZL's other units, which are expected to generate huge savings through FY13. The company's two smelters at Chanderiya have been awarded the EOU (export oriented unit) status, which are eligible for tax exemptions till June 2011. Tax exemptions on EOU status have been extended by one more year in the recent 2009-10 budget by the GOI. Tax exemptions on CPP will expire on March 31, 2010 and unless extended new plants will not be able to avail tax benefits.

## Valuations

### Peer comparison

We believe HZL does not have any like-to-like domestic peers as regards scale or reach and the company's peer set includes global zinc miners and smelters such as Teck Resources, Xstrata, Nyrstar etc. Comparative analysis on EV/EBITDA parameter indicates that the company is trading at a discount to its global peer set. However, the stock trades at 2x P/B FY10E and 1.7x FY11E.

**Exhibit 30: Valuations - Peer Comparison**



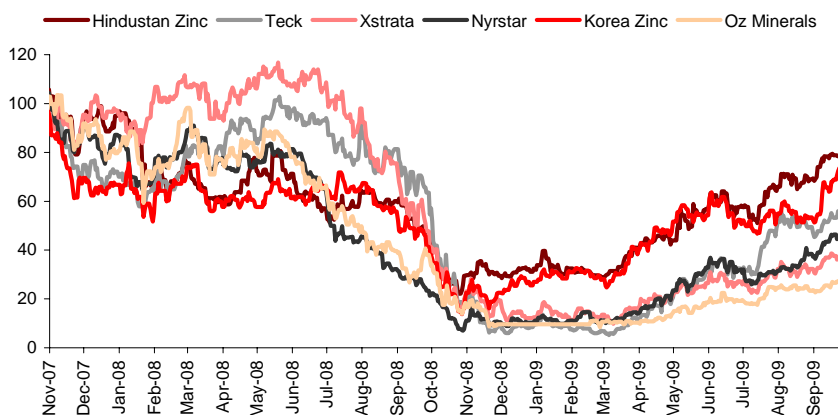
Source: Bloomberg, JM Financial

**Exhibit 31: Global peer comparison**

Company	EV/EBITDA (x)		P/E (x)		RoE (%)		P/B		EBITDA (%)	
	CY09E	CY10E	CY09E	CY10E	CY09E	CY10E	CY09E	CY10E	CY09E	CY10E
Teck	8.7	8.0	16.4	13.2	7.2	6.9	1.1	1.0	43.9	44.4
Xstrata	9.5	6.9	18.1	12.4	8.3	10.9	1.4	1.3	29.3	33.5
Nyrstar	10.5	6.1	49.2	22.6	1.1	5.1	1.1	1.1	4.1	5.4
Korea Zinc	5.8	5.3	9.1	8.4	17.8	16.3	1.5	1.3	21.7	22.7
Oz Mineral	8.9	5.1	70.0	12.7	1.2	8.7	1.3	1.2	37.6	58.8
Sterlite	14.3	9.1	18.2	11.7	10.7	13.7	1.9	1.6	6.0	31.6
Hindalco	9.1	7.6	21.0	15.0	5.9	7.8	1.3	1.2	9.7	10.8
HZL	6.4	5.4	10.7	9.6	18.7	17.4	2.0	1.7	52.4	53.0

Source: Bloomberg, JM Financial; Note: CY09 and CY10 for global companies has been compared with FY10 and FY11 for domestic companies

**Exhibit 32: HZL's Out-performance v/s Peers**



Source: Bloomberg, JM Financial



## DCF value of Rs 598/ share

On a DCF basis, assuming 20 years of mine life at expanded smelting capacities of 1mtpa, long term Zinc price USD 1,400/ton and lead price of USD 1,200/ton, WACC at 12.5% , tax rate of 25% and terminal value as nil, the fair value of the stock is Rs 598/share.

### Exhibit 33: DCF valuation of Rs 598/share

(Rs. mn)	FY10E	FY11E	FY12E	FY29E
Zinc metal volumes - 000' tons	585	615	868	868
Lead metal volumes - 000' tons	72	85	181	181
Zinc LME price - USD/ton	1,700	1,750	1,500	1,400
Lead LME price - USD/ton	1,800	1,800	1,500	1,200
USD:INR	48.0	47.0	40.0	40.0
<b>Cash Inflows</b>				
EBITDA	35,862	39,399	33,771	31,519
Less: Taxes	8,141	9,046	8,367	7,880
<i>NOPLAT</i>	27,721	30,352	25,403	23,639
<b>Outflows</b>				
Capex	11,300	18,500	8,200	2,000
Working capital	475	328	(145)	200.0
<i>Total Outflow</i>	11,775	18,828	8,055	2,200
Net cash flow	15,945	11,525	17,349	21,439
PV of Cash flow	14,098	9,010	11,992	1,828
Net Present Value (Rs mn)	134,269			
Add: Net Cash as of FY10 end	118,335			
Total Present Value (Rs mn)	252,605			
Shares o/s (mn)	423			
DCF Value (Rs./Share)	598			

Source: Company data, JM Financial

### Exhibit 34: WACC for Hindustan Zinc

Particulars	(%)
Risk free rate - 10 year Gsec yield	7.50%
Market risk premium	7%
Beta	0.8
WACC -Equity cost ,zero debt company	12.5%

Source: Company data, JM Financial

### Exhibit 35: DCF sensitivity to long term price assumptions

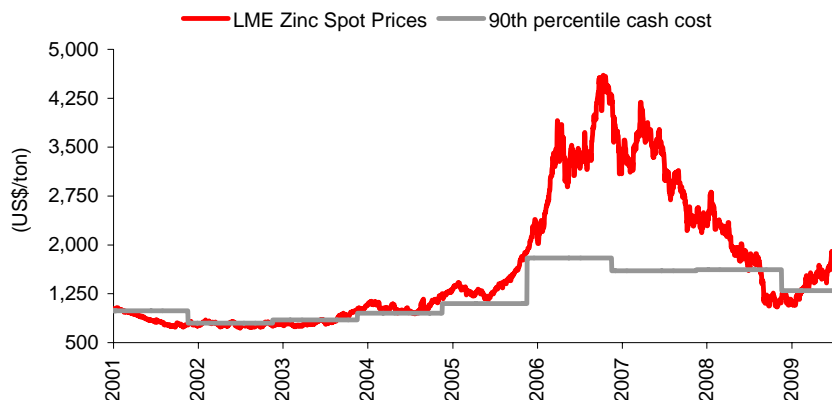
Zinc price –USD/ton	1,000	1,200	1,400	1,600	1,800
DCF Value Rs/share	524	561	598	635	672

Source: JM Financial

## Fairly valued – Initiate coverage with 'HOLD'

We believe that the recent run-up in zinc prices (55% YTD returns) is unsustainable due to slowing imports from China, decline in zinc demand for steel galvanizing and incremental supplies of ~1.1m ton of Chinese smelting capacities waiting on the sidelines. ILZSG expects a surplus of ~ 299k tons in 2009 and ~ 397k tons in 2010. Zinc prices are trading at US\$1,900/ton on LME which is 47% higher than the 90th percentile cash cost of US\$1,296/ton. We have assumed zinc prices of US\$1700/ton for FY10E.

### Exhibit 36: Price ~47% higher than 90th percentile cash cost



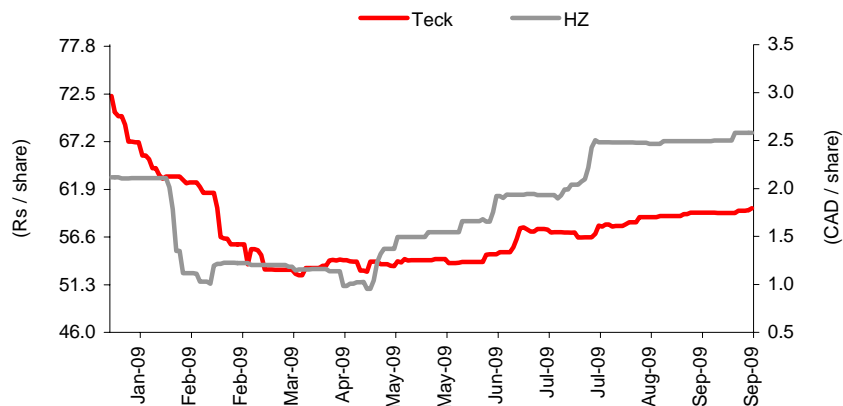
Source: Boliden, JM Financial

Presence in the lowest deciles of global cost curve facilitated by captive mines and power plant, aggressive capacity ramp up to 1mtpa (June 2010) and strong balance sheet with net cash of Rs228/ share, positions the company to benefit the most in case of demand and price recovery. However, a subdued price outlook for zinc coupled with a sharp run up in stock price (~143% YTD) caps further upside. We value the stock at Rs 787/ share based on 5x FY11E EV/EBITDA. We initiate coverage with a HOLD rating.

### Exhibit 37: Key assumptions

(Rs. mn)	FY10E	FY11E
Zinc metal volumes - '000' tons	585	615
Lead metal volumes - '000' tons	72	85
Zinc LME price - USD/ton	1,700	1,750
Lead LME price - USD/ton	1,800	1,800
USD:INR	48.0	47.0

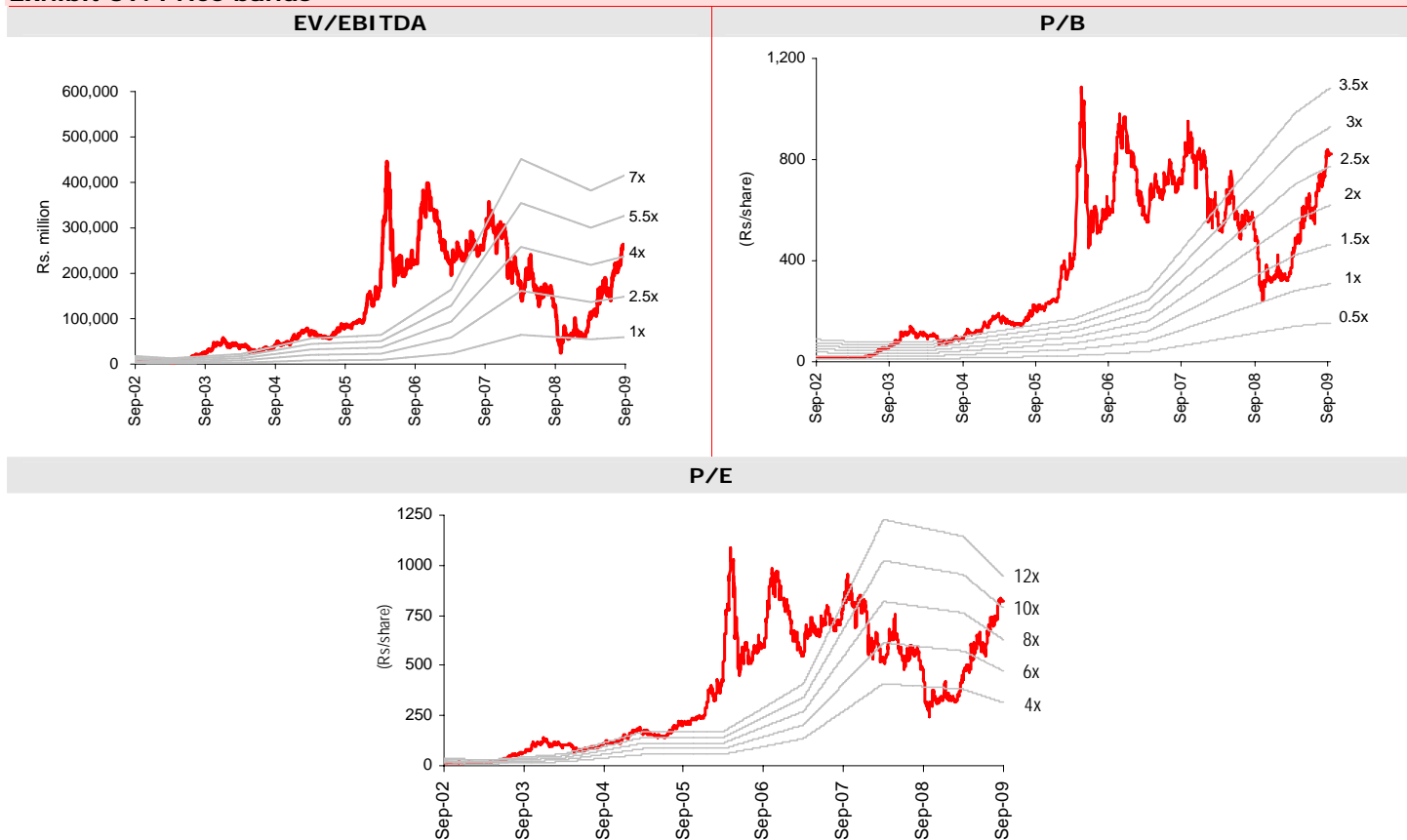
**Exhibit 38: Consensus EPS revisions**



Source: Bloomberg

## TRAILING EV/EBITDA, P/B, P/E bands

**Exhibit 39: Price bands**



Source: Company data, JM Financial

## Lead Price Outlook

The global market for refined lead moved into surplus in 2008 after five consecutive years of deficits. As a result, lead prices fell throughout the year touching a low of US\$850/ton in December 2008. The LME cash price average of US\$1,917/ton in 2008 was down from the 2007 average of US\$2,565/ton. LME stocks at the end of 2008 remained similar to 2007 levels at 45,200 tons.

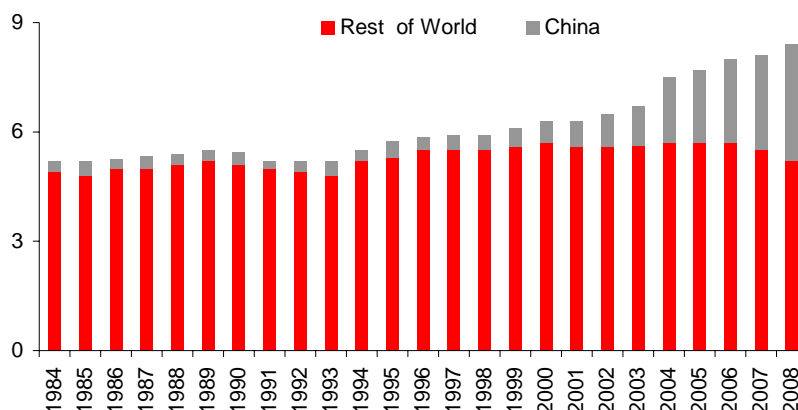
For the seventh consecutive year, global refined lead consumption was above the 25-year average growth of 1.6% per year. China dominated with ~35% share in both production and consumption in lead in 2008. China's growth was greater than the rest of the world combined, as China's electric bike fleet increased the number of bikes sold by an estimated ~10%. Electric bikes in China now account for 27% of China's refined lead consumption. The export taxes instituted by China in 2007 continued to have an effect on lead exports from China. China exported on average 17,000 tons per month in 2007, while in the first six months of 2008 exports averaged 4,000 tons per month. In the second half of 2008, China turned from an exporter of refined lead to an importer. Global lead production is expected to decline marginally by ~1% in 2009 to 8.6m tons while global usage of lead is expected to decline by ~1.1% to 8.55m tons in 2009.

**Exhibit 40: Global demand & supply - Lead**

(000 tons)	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009E
Mine Production	3,046	3,008	2,830	3,111	3,130	3,421	3,525	3,607	3,913	3,666
yoy change (%)	2.7	-1.2	-5.9	9.9	0.6	9.3	3.0	2.3	8.5	-6.3
Metal production	6,655	6,762	6,670	6,762	7,005	7,640	7,937	8,132	8,679	8,601
yoy change (%)	6.0	1.6	-1.4	1.4	3.6	9.1	3.9	2.5	6.7	-0.9
Metal Consumption	6,518	6,510	6,649	6,848	7,279	7,803	8,075	8,189	8,649	8,554
yoy change (%)	4.4	-0.1	2.1	3.0	6.3	7.2	3.5	1.4	5.6	-1.1
Metal Balance	137	252	21	-86	-274	-163	-138	-57	30	47
LME average US\$/ton	454	477	453	515	882	976	1,286	2,591	2,084	1,800

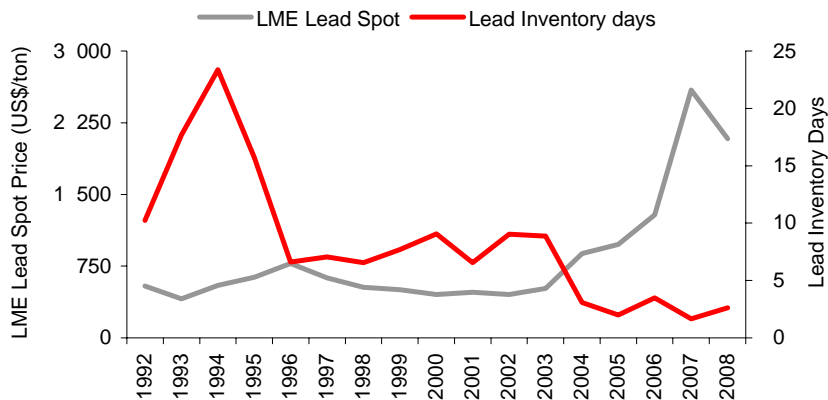
Source: ILZSG, JM Financial

**Exhibit 41: Global demand for lead (m tons)**



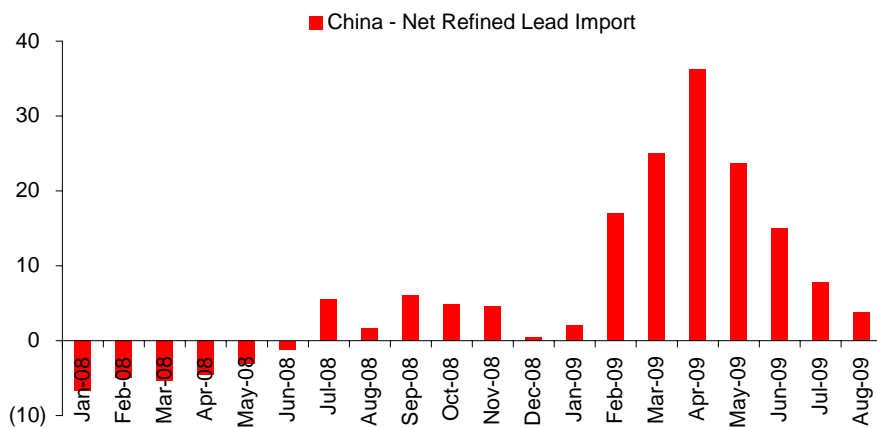
Source: Teck Resources, JM Financial

**Exhibit 42: Lead price and inventory days**



Source: Bloomberg, JM Financial

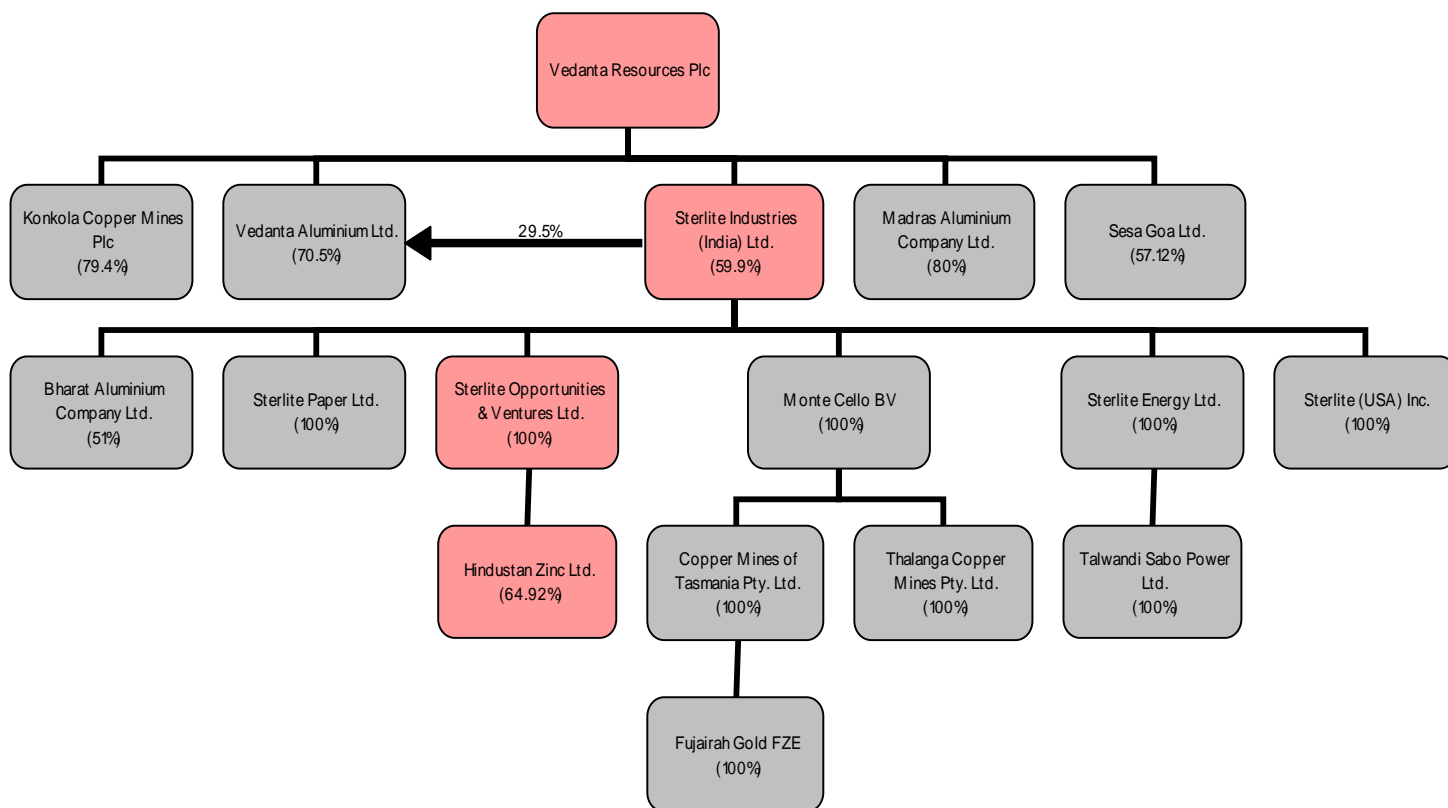
**Exhibit 43: Net refined Lead imports – China ('000 tons)**



Source: CBI China, JM Financial

## Annexure 1

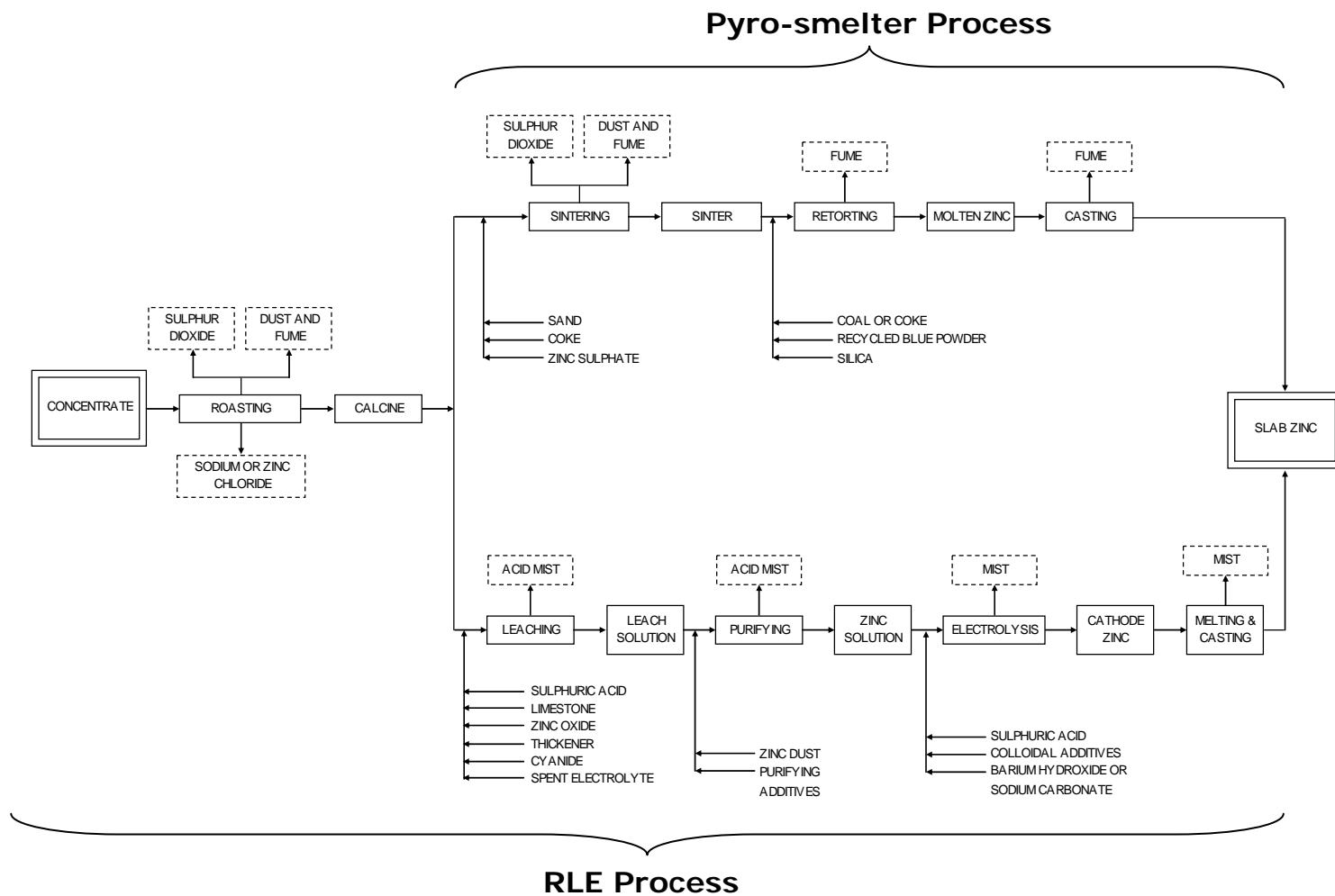
### Hindustan Zinc Holding Structure



Source: Vedanta Resources

## Annexure 2

### Zinc Manufacturing Process



Source: Industry

## Annexure 3

### Chinese Zinc Concentrate and Metal Consumption Trend

**Exhibit 44: Zinc Concentrate**

('000 tons)	Prodn	YoY	MoM	Import	YoY	MoM	Net Import/ (Export)	YoY	MoM	App. Cons.	YoY	MoM
		(%)	(%)		(%)	(%)		(%)	(%)		(%)	(%)
Jan-08	159	25	-44	267	149	22	267	149	22	426	82	-15
Feb-08	166	23	4	129	26	-52	129	26	-52	295	24	-31
Mar-08	220	26	33	200	28	55	200	28	55	420	27	42
Apr-08	246	15	12	134	-21	-33	134	-21	-33	380	-1	-10
May-08	255	18	4	128	-30	-5	128	-30	-5	383	-4	1
Jun-08	345	21	35	220	27	72	220	27	72	565	24	48
Jul-08	285	29	-17	151	-8	-31	151	-8	-31	436	13	-23
Aug-08	290	47	2	196	-6	29	196	-6	29	486	20	11
Sep-08	299	33	3	292	-1	49	292	-1	49	591	14	22
Oct-08	270	11	-10	269	63	-8	269	63	-8	539	32	-9
Nov-08	269	11	0	148	-30	-45	148	-30	-45	417	-8	-23
Dec-08	272	-4	1	263	20	78	263	20	78	535	7	28
Jan-09	111	-30	-59	228	-14	-13	228	-14	-13	339	-20	-37
Feb-09	134	-19	21	268	108	17	268	108	17	402	36	18
Mar-09	179	-19	34	192	-4	-28	192	-4	-28	371	-12	-8
Apr-09	201	-18	12	351	162	82	351	162	82	552	45	49
May-09	319	25	59	301	136	-14	301	136	-14	620	62	12
Jun-09	300	-13	-6	249	13	-17	249	13	-17	549	-3	-11
Jul-09	264	-7	-12	433	186	74	433	186	74	697	60	27

Source: CBI China, JM Financial

**Exhibit 45: Refined Zinc**

('000 tons)	Prodn	YoY	MoM	Import	YoY	MoM	Net Import/ (Export)	YoY	MoM	App. Cons.	YoY	MoM
		(%)	(%)		(%)	(%)		(%)	(%)		(%)	(%)
Jan-08	298	6	-11	3	-79	-38	-7	-87	1	291	30	-12
Feb-08	268	-5	-10	9	29	190	2	-106	-132	270	12	-7
Mar-08	316	3	18	9	57	4	5	-116	100	321	15	19
Apr-08	319	5	1	13	-33	43	5	-34	0	324	4	1
May-08	339	5	6	19	13	43	14	127	196	353	7	9
Jun-08	368	15	9	15	142	-24	10	-240	-28	378	20	7
Jul-08	331	20	-10	31	85	117	26	-473	166	357	33	-5
Aug-08	333	18	1	26	327	-18	21	-230	-20	354	33	-1
Sep-08	342	4	3	34	162	33	29	2,810	40	371	13	5
Oct-08	359	4	5	11	-54	-66	4	-76	-87	363	1	-2
Nov-08	304	-8	-15	8	-45	-28	5	-36	34	309	-9	-15
Dec-08	315	-6	4	3	-34	-60	-2	-79	-129	314	-5	1
Jan-09	235	-21	-25	13	303	279	12	-262	-867	247	-15	-21
Feb-09	265	-1	13	77	758	518	75	3,165	553	340	26	38
Mar-09	340	8	28	121	1,187	57	120	2,513	60	460	44	35
Apr-09	335	5	-1	106	693	-12	106	2,204	-12	441	36	-4
May-09	336	-1	0	96	398	-10	96	603	-10	432	22	-2
Jun-09	367	0	9	67	362	-30	65	566	-32	432	14	0
Jul-09	376	14	2	56	79	-16	55	111	-16	431	21	0
Aug-09	415	25	10	31	19	-46	31	47	-45	446	26	3

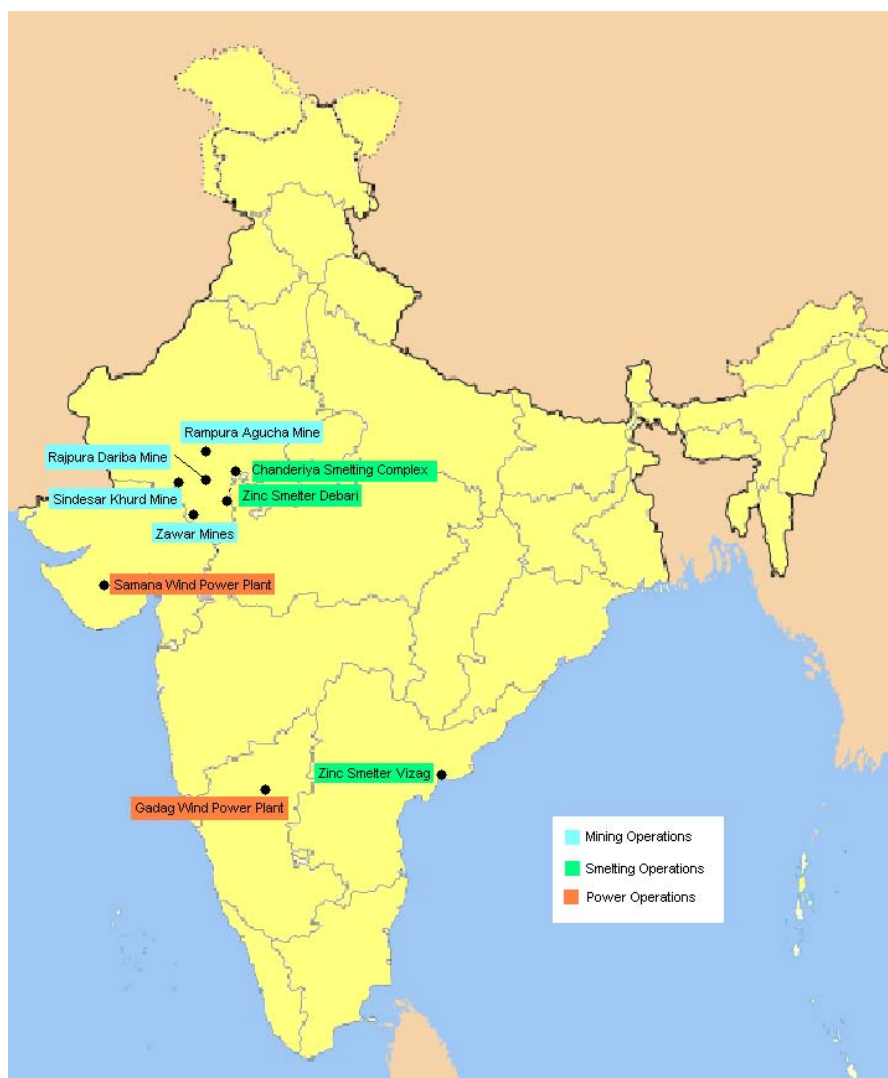
Source: CBI China, JM Financial



## Company Background

Hindustan Zinc is India's largest integrated producer of zinc and lead, with a global market share of approximately ~5.9% in zinc. As one of the lowest cost producers in the world, the company is well placed to serve the growing demand of Asian countries. Hindustan Zinc is a subsidiary of Sterlite Industries (India) Limited which in turn is held by metals and mining major - Vedanta Resources plc.

Hindustan Zinc's core business comprises of mining and smelting of zinc backward integrated with captive power generation. Their four mines are located at Rampura Agucha, Sindesar Khurd, Rajpura Dariba and Zawar in the state of Rajasthan and the three smelters are located at Chanderiya and Debari in Rajasthan and Vizag in the state of Andhra Pradesh.



The Rampura Agucha mine is the fourth largest zinc producing mine in the world and the Chanderiya Smelting Complex is the largest single-location zinc smelting complex in the world. Hindustan Zinc's current metal production capacity stands at 754,000 tons per annum (669,000 tons of zinc and 85,000 tons of lead). The ore mining capacity stands at 7.40 million tons per annum. 314 MW of coal based thermal captive power supports the metallurgical operations. The 123.2 MW wind power generated in Gujarat and Karnataka is sold to the respective state grids.

## Quarterlies

Exhibit 46: Quarterly results						(Rs mn)	
Y/E March	1QFY10E	1QFY10	% Var	1QFY09	%YoY	4QFY09	%QoQ
Net sales	13,846	15,122	9.2	16,437	(8.0)	12,627	19.8
Expenditure	6,579	7,443	13.1	6,660	11.8	7,076	5.2
Manufacturing Expenses		4,431		4,347	1.9	4,427	0.1
Royalties		920		1,021	(9.9)	836	10
Staff Cost		806		847	(4.9)	872	(7.6)
EBITDA	7,267	7,679	5.7	9,777	(21.5)	5,551	38.3
EBITDA (%)	52.3	50.8		59.5	(14.6)	44.0	15.5
Other non-operational income		1,946		2,094	(7.1)	2,205	(11.7)
Depreciation & amortisation		748		686	9.0	750	(0.3)
EBIT		6,931		9,091	(23.8)	4,800	44.4
Interest (income)/exp (net)		32		69	(53.4)	49	(34.2)
Pre tax profit	9,014	8,845	-1.9	11,116	(20.4)	6,956	27.1
Taxes		1,657		2,638	(37.2)	1,442	14.9
Eff. Tax Rate (%)		18.7		23.7	(21.1)	20.7	(9.6)
Net profit	6,046	7,188	18.9	8,478	(15.2)	5,515	30.3
EPS (Rs)	14.3	17.0		20.1	(15.2)	13.1	30.3

Source: Company, Bloomberg estimates

- Net Sales declined 8% YoY to ~Rs15b. Steep decline in zinc prices at the LME by ~30% YoY to US\$ 1,509/ton was partly cushioned by rupee depreciation by ~17% and a volume growth of ~9% YoY to 138ktons. The company also sold 36,191tons of zinc concentrate during the quarter.

Exhibit 47: Sales volume					(Tons)
	1QFY09	2QFY09	3QFY09	4QFY09	1QFY10
Refined Zinc	126,705	123,001	149,828	152,796	138,015
Refined Lead	17,249	12,741	14,923	15,651	15,073
Zinc Concentrate (MIC)	69	38,935	219		36,191
Lead Concentrate (MIC)	5,437	10,061	1,122	15,121	0
Silver (kg)	20,467	24,233	24,929	33,496	29,838
Sulphuric Acid	229,146	218,160	253,147	274,133	260,310
Cadmium	101	115	131	130	82

Source: JM Financial

- HZL reported a decline in Margins by 870bp YoY to 50.8% mainly due to sharp fall in realizations. Revenues from sale of by-products halved YoY due to a steep decline in prices of sulphuric acid. Staff cost and mining royalties declined 5% and 10% YoY respectively.

Exhibit 48: Expenditure					(Rs mn)
	1QFY09	2QFY09	3QFY09	4QFY09	1QFY10
Total Exp.	6,660	8,084	7,641	7,076	7,443
Increase/Decrease in stock	(317)	106	(269)	236	569
Mining & Manufacturing Exp.	4,347	5,162	5,318	4,427	4,431
Duties, Taxes & Mining Royalty	1,021	1,018	767	836	920
Rem. & other benefits	847	865	1,065	872	806
Ad, Selling & other expenses	761	933	760	706	717

Source: JM Financial

## Financial Tables

Profit & loss statement (Rs mn)					
Y/E March	FY07	FY08	FY09	FY10E	FY11E
Net sales	86,032	79,588	57,760	68,426	74,327
Growth (%)		-7.5	-27.4	18.5	8.6
Royalties	6,438	5,111	3,642	4,020	4,324
Power & Fuel	4,026	5,454	8,114	9,037	9,722
Staff Costs	2,648	3,192	3,790	4,182	4,500
EBITDA	64,499	54,594	28,298	35,862	39,399
EBITDA (%)	75.0	68.6	49.0	52.4	53.0
Growth (%)		-15	-48	27	10
Other non-operational income	712	4,018	7,288	8,056	9,586
Depreciation & amortisation	1,561	2,205	2,853	2,993	3,534
EBIT	63,651	56,407	32,734	40,925	45,451
Interest (income)/exp (net)	284	242	219	219	219
Pre tax profit	63,367	56,165	32,515	40,706	45,232
Taxes	20,119	15,893	6,306	8,141	9,046
PAT before EO	43,248	40,272	26,209	32,565	36,186
Extra (income)/exp (net)	-1,170	-3,689	-1,068	0	0
Net profit	44,418	43,961	27,276	32,565	36,186
Adjusted net profit	43,248	40,272	26,209	32,565	36,186
Margin (%)	50.3	50.6	45.4	47.6	48.7
Diluted share capital (mn)	423	423	423	423	423
EPS (Rs)	102.4	95.3	62.0	77.1	85.6
Growth (%)		-7	-35	24	11

Source: Company, JM Financial

Balance sheet (Rs mn)					
Y/E March	FY07	FY08	FY09	FY10E	FY11E
Share capital	4,225	4,225	4,225	4,225	4,225
Reserves & surplus	72,045	114,257	139,351	169,989	204,248
Networth	76,271	118,482	143,576	174,214	208,473
Total loans	4	4	87	87	87
<b>Sources of funds</b>	<b>76,275</b>	<b>118,486</b>	<b>143,663</b>	<b>174,301</b>	<b>208,560</b>
Fixed assets	34,998	51,818	58,555	59,855	88,355
Less: Depreciation/amortisation	12,642	14,846	17,506	20,499	24,033
Net block	22,356	36,972	41,049	39,356	64,322
CWIP	6,350	4,655	11,084	21,084	11,084
Investments	44,033	63,325	69,289	77,265	78,709
Deferred tax assets/(liability)	-3,006	-4,597	-5,589	-5,589	-5,589
Current assets	14,810	27,116	37,839	52,252	70,692
Inventories	4,993	5,181	5,457	5,628	6,054
Sundry debtors	5,566	4,437	1,649	1,851	2,015
Cash & bank balance	1,197	13,628	27,192	41,071	58,592
Loans & advances	3,054	3,871	3,542	3,702	4,030
Current liabilities & provisions	8,268	8,984	10,010	10,068	10,659
Current liabilities	6,418	7,749	8,028	8,141	8,732
Provisions and others	1,850	1,236	1,981	1,927	1,927
Net current assets	6,542	18,132	27,830	42,184	60,033
Others (net)					
<b>Application of funds</b>	<b>76,275</b>	<b>118,486</b>	<b>143,663</b>	<b>174,301</b>	<b>208,560</b>

Source: Company, JM Financial

Cash flow statement (Rs mn)					
Y/E March	FY07	FY08	FY09	FY10E	FY11E
Net profit	44,418	43,961	27,276	32,565	36,186
Depreciation/amortisation	1,561	2,205	2,853	2,993	3,534
(Inc)/dec in working capital	977	841	3,866	-475	-328
Others	340	2,312	594		
Net cash from operations (a)	47,296	49,319	34,589	35,082	39,392
(Inc)/dec in investments	-27,984	-19,292	-5,964	-7,976	-1444
Capex	-10,870	-15,125	-13,166	-11,300	-18500
Others					
Cash flow from inv. (b)	-38,854	-34,416	-19,131	-19,276	-19,944
Inc/(dec) in capital	0	0	0	0	0
Dividends paid + div tax	-2,408	-2,472	-1,977	-1,927	-1,927
Inc/dec in loans	-5,576	0	83	0	0
Financial cash flow (c)	-7,985	-2,472	-1,894	-1,927	-1,927
Net inc/dec in cash (a+b+c)	457	12,431	13,564	13,879	17,521
Opening cash balance	740	1197	13,628	27,191	41,071
Closing cash balance	1,197	13,628	27,191	41,071	58,592

Source: Company, JM Financial

Key ratios					
Y/E March	FY07	FY08	FY09	FY10E	FY11E
BV/share (Rs)	181	280	340	412	493
Cash/share	107	182	228	280	325
ROCE (%)	83.4	47.6	22.8	23.5	21.8
ROE (%)	56.7	34.0	18.3	18.7	17.4
Debt-equity ratio (x)	0.0	0.0	0.1	0.0	0.0
Valuation ratios (x)					
PER	8.1	8.7	13.3	10.7	9.6
Cash Adj. P/E	7.1	7.5	13.4	9.4	8.0
P/BV	4.6	2.9	2.4	2.0	1.7
EV/EBITDA	4.7	5.0	8.9	6.4	5.4
EV/Sales	3.5	3.4	4.4	3.4	2.9
Turnover ratios (no.)					
Debtor days	24	20	10	10	10
Inventory days	21	24	34	30	30
Creditor days	140	131	124	113	111

Source: Company, JM Financial

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## JM Financial Institutional Securities Private Limited

MEMBER, BOMBAY STOCK EXCHANGE LIMITED AND NATIONAL STOCK EXCHANGE OF INDIA LIMITED

51, Maker Chambers III, Nariman Point, Mumbai 400 021, India.

Board: +9122 6630 3030 | Fax: +91 22 6747 1825 | Email: [research@jmfinancial.in](mailto:research@jmfinancial.in) | [www.jmfinancial.in](http://www.jmfinancial.in)

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