

Vedanta

BSE SENSEX 32,021
S&P CNX 9,886

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Stock Info

Bloomberg	VEDL IN
Equity Shares (m)	3,717
52-Week Range (INR)	278 / 154
1, 6, 12 Rel. Per (%)	7/-7/45
M.Cap. (INR b)	975.6
M.Cap. (USD b)	15.1
Avg Val, INRm	2952
Free float (%)	37.1

Financials Snapshot (INR b)

Y/E Mar	2017	2018E	2019E
Net Sales	722.3	842	994
EBITDA (INR b)	175.5	208.5	255.8
Net Profit	56.3	91.0	119.5
EPS	15.1	24.5	32.2
EPS growth (%)		61.8	31.3
BV/Share (INR)	162.7	172.4	187.4
P/E (x)	17.4	10.7	8.2
P/BV (x)	1.6	1.5	1.4
RoE (%)	9.7	14.6	17.9
RoCE (%)	12.4	14.7	17.2

Shareholding pattern (%)

As On	Mar-17	Dec-16	Mar-16
Promoter	62.9	62.9	62.9
DII	7.0	7.0	9.0
FII	16.4	16.8	12.5
Others	13.7	13.3	15.7

FII Includes depository receipts

CMP: INR263 TP: INR311(+18%) Upgrade to Buy

Oil & ali volumes, tight zinc supply driving upgrades

Raising estimates and upgrading to Buy

Oil & gas: More production has become viable, raising volumes and DCF

- We recently attended Vedanta's (VEDL) Oil & Gas Day, which made us bullish on the company's prospects, as it has crushed opex/capex aggressively, making ASP EOR, RDG gas and tight O&G viable even at low Brent price of USD40/bbl.
- Impressed by VEDL's zest for more resource and commitment to exploit the huge potential in the Rajasthan block, we have raised volumes estimates for the next 10-20 years, which has more than doubled the DCF valuations.

Zinc: Supply tightness to continue, raising price assumption

- Zinc concentrate supply is tighter than our expectations. Glencore too has kept away from opening 500ktpa mothballed capacity, despite a rally in zinc prices. On the other hand, demand growth has been strong, which augurs well for zinc prices. We are raising LME assumptions from USD2,800 to USD3,200/t.

Aluminum: Raising volumes estimate given strong guidance on smelter ramp-up

- We have upgraded aluminum volumes estimate by 17% to 2.0mt in FY19E post the company guiding that the three new smelters at Jharsuguda will achieve full ramp-up by 3QFY18E, assuming no further pot outage.

Annual Report Analysis: Underlying net debt understated in 4QFY17 presentation

- The annual report FY17 restated balance sheet for the previous two years, assuming the merger with Cairn India with effect from 31 March 2015. This gives a good picture to understand the financials of the merged company.
- Shareholders were rewarded liberally, led by strong free cash flows. However, underlying net debt is INR287b higher than that reported in the 4QFY17 presentation.

Raising estimates and upgrading to Buy

- On upgrade in volumes (O&G and aluminum) and zinc prices, consolidated EBITDA is raised by 16% to INR318b in FY19E.
- We have toned down the valuation multiple from 7x to 6.5x EV/EBITDA (to align with peers) because we now factor in full volume potential and optimistic zinc prices. As a combined effect, the target price has increased 32% to INR311/share on the basis of FY19E SOTP, implying 18% upside.
- VEDL has now stated a clear dividend policy of minimum 30% payout. It has also started stating that parent debt will be serviced by dividend payouts. We are modeling 38% payout. This may lead to USD281m dividend payout to the parent. A higher payout is possible as this may not be sufficient to service debt. This has reduced concerns about capital misallocation.
- The stock has been re-rated on higher dividend payout, volume growth and strong balance sheet. We are **upgrading VEDL to Buy**.
- EBITDA of Hindustan Zinc (HZL) is raised by 11-21% over FY18-20E on upgrade to the zinc price estimate. Value multiple is toned down to 6.5x. The revised target price is INR301/share. We upgrade **HZL to Neutral**.

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Investors are advised to refer through important disclosures made at the last page of the Research Report.

Motilal Oswal research is available on www.motilaloswal.com/Institutional-Equities, Bloomberg, Thomson Reuters, Factset and S&P Capital.

Valuations and key assumptions

Raising estimates and target price

Exhibit 1: Sum-of-the-parts valuation

INR billion (unless specified)

	EBITDA			EV	Enterprise Value			Volumes (kt/kbpd)			Prices (USD/t or bbl)		
	FY18E	FY19E	FY20E		EBITDA (x)	FY18E	FY19E	FY20E	FY18E	FY19E	FY20E	FY18E	FY19E
VEDL (ex HZL)													
Copper	16	17	18	6.5	104	113	115	377	399	408	5,523	5,464	5,455
Aluminum	34	44	47	6.5	219	288	309	1,546	2,001	2,192	1,846	1,825	1,825
Iron ore	7	9	8	6.5	49	59	50	5,500	5,500	5,500	61	65	56
Power(TSPL)	13	13	12	DCF	87	80	76	PPA					
Power(other)	3	5	5	6.5	21	30	30	Merchant and RE					
Zinc-Int	14	19	32	6.5	92	127	205	166	182	290	2,947	3,200	3,200
Oil&Gas	48	61	65	DCF	158	144	131	162	183	197	50	55	55
Sub. Tot.	135	168	186	5.0	730	840	916						
Less: Net Debt					539	511	475	USD/INR Avg. --->			65.6	67.0	68.0
Equity Value					192	329	441	USD/INR year end -->			67.0	68.0	68.0
Hind. Zinc													
HZL	126	150	153	6.5	819	973	996	782	809	826	2,947	3,200	3,200
Less: Net Debt					-221	-300	-383	152	169	173	2,227	2,250	2,250
Equity Value					1,040	1,272	1,379	462	516	527	41	43	43
INR/share of HZL					246	301	326						
VEDL					Equity Value								
HZL@64.9%					675	826	895						
VEDL (ex HZL)					192	329	441						
Tot. Equity Value					867	1,155	1,336						
INR/share					233	311	359						
DPS					7.7	10.1	11.3						
Yield					2.9	3.8	4.3						

Source: MOSL

Exhibit 2: Changes in valuations and assumptions

INR billion (unless specified)

	EBITDA			EV	Enterprise Value			Volumes (kt/kbpd)			Prices (USD/t or bbl)		
	FY18E	FY19E	FY20E	EBITDA (x)	FY18E	FY19E	FY20E	FY18E	FY19E	FY20E	FY18E	FY19E	FY20E
Previous release													
Copper	16	17	18	7.0	112	122	124	377	399	408	5,523	5,464	5,455
Aluminum	32	38	42	7.0	222	269	291	1,446	1,706	1,890	1,846	1,825	1,825
Iron ore	6	7	8	5.0	32	37	38	5,500	5,500	5,500	56	56	56
Power(TSPL)	13	13	12	DCF	87	80	76						
Power(other)	3	5	5	7.0	23	32	32						
Zinc-Int	12	15	24	7.0	86	102	166	166	182	290	2,747	2,800	2,800
Oil & Gas	48	47	47	DCF	77	67	62	155	146	143	50	50	50
HZL	113	123	126	7	791	864	883	782	809	826	2,747	2,800	2,800
Total	243	266	281		1,430	1,573	1,671						
Changes(%)													
Copper					-7	-7	-7						
Aluminum	6	15	14		-1	7	6	7	17	16			
Iron ore	17	23			52	60	30				8	16	
Power(TSPL)													
Power(other)					-7	-7	-7						
Zinc-Int	16	33	33		7	24	24				7	14	14
Oil & Gas	0	31	42		112	123	121	4	26	37		10	10
HZL	11	21	21		4	13	13				7	14	14
Total	7	20	22		9	16	15						

Source: MOSL

Annual Report FY17 gives clear picture of merged entity

Big gap between underlying net debt and that reported in 4Q presentation

- Reporting on the basis of merged entity gives a clear picture of the business. VEDL generated INR187b (+INR20b YoY) of underlying operating cash flows, while capex was unchanged at INR55b. The remaining amount was used for paying large special dividends.
- Underlying net debt is INR287b higher than that reported in the 4QFY17 presentation, which increased by INR126b to fund net finance cost, unpaid RPS and dividend.

Reporting on Ind-AS and merged entity basis gives clear picture of business

The FY17 annual report restated balance sheet for the previous two years, assuming the merger with Cairn India with effect from 31 March 2015. This gives a good picture to understand the financials of the merged company. We have now overhauled our financial model under new reporting.

Strong growth in EBITDA and shareholder reward

The year saw handsome growth in EBITDA and operating cash flows. Although EBITDA increased by INR62b YoY to INR213b in FY17, operating cash flows rose by only INR20b YoY to INR187b because the base was boosted by INR40b working capital release. Capex during the year was unchanged YoY at INR55b. Thus, free cash flows to the firm too increased by INR21b to INR132b, which was largely utilized to fund dividend payout. Net underlying debt increased by INR126b to fund net finance cost, unpaid RPS and dividend. VEDL distributed a total INR200b in dividend (including dividend distribution tax and the unpaid portion).

Underlying net debt understated in 4QFY17 presentation

A careful reading of the FY17 annual report reveals that net debt reported in the 4QFY17 presentation on slide 35 at INR81b understates the figures by INR287b under IND-AS reporting.

- Short-term buyers' credit of INR113b has been grouped with trade payable, while long-term buyers' credit continues to be reported in borrowings.
- INR30.1b of redeemable preference shares (RPS) due to outgoing minorities of Cairn shareholders are grouped in non-financial liabilities. This amount is clearly interest-bearing financial liabilities and hence borrowings.
- INR47.2b customer advances are pure financial arrangement, which is evident from the fact that discount offered is accounted in the finance cost. If we were to ignore this as borrowings, we would be overestimating EBITDA.
- INR72.2b is the outstanding dividend payable as on 31 March. Although this has been adjusted while reporting Hindustan Zinc's net cash position in the press release and financial reporting, it has not been adjusted in VNDL's presentation.
- According to our calculations, underlying net debt is INR368.4b, an increase of INR126b YoY. If we were to exclude HZL's debt, net debt would be INR539b, which is a decline of INR56b YoY, largely funded by dividend from HZL.

Underlying net debt has increased by INR126b to INR368b YoY, but is down by INR56b to INR539b ex-HZL

Oil & Gas Day highlights enhance production path

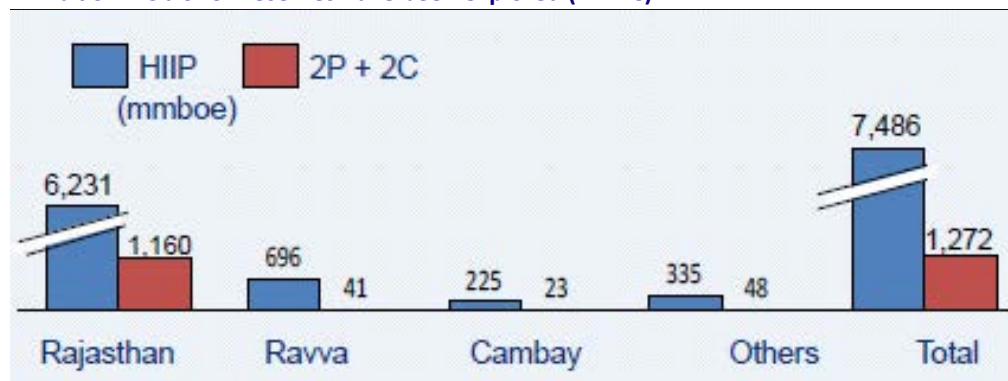
We are raising volumes estimate and DCF value

- VEDL has planned USD955m capex to enhance estimated ultimate recovery (EUR) by 174 mmboe. Bhagyam and Aishwariya EOR programs too are planned. RDG phase 1 has started, which will boost production by 7.8kboepd.
- Mangla Pilot ASP EOR has been very successful. This will help in regaining previous peak production.
- Tight oil & gas production too is viable at Brent of USD40/bbl.
- VEDL's zest for more resource and commitment to exploit the huge potential in the Rajasthan block is likely to boost production. It has set its eye on raising production to 300kbpd in the medium term and to 500kbpd in the long term.
- Production sharing contract (PSC) is likely to be extended, with 10% additional sharing of petroleum profit.
- Opex and capex have been reduced by 25% on re-engineering and re-negotiations.
- We are raising O&G production estimate by 26% to 183kbpd in FY19E and the trajectory thereafter. The DCF value has increased by 123% to INR150b.

Vision: To exploit huge Rajasthan block to raise production 3x

VEDL has set a vision to triple O&G production to 500kboepd. It has made 51 discoveries with 7.5b hydrocarbon initially in place (HIIP) till date. Despite failure by two major upstream, Cairn struck oil in Mangla in 2004 i.e. within four years of commencing operation. Discovery in Bhagyam and Aishwariya was in quick succession. Only 7% of total HIIP (6.2b boe) has been recovered till date, as against the potential of 50%.

Exhibit 3: 1.3b of oil reserves have been explored (2P+2C)



Source: Company

At the forefront of technology and innovation

Cairn is at the forefront of technology and innovation. It has installed the world's longest 700km continuously heated pipeline from Barmer to Bhogat in Gujarat, and introduced drag-reducing agents to enhance the pipeline throughput to 240kboepd, with provision to 300kboepd. It has also implemented the world's largest enhanced oil recovery (EOR) project in less than 12 months, and successfully tested alkaline surfactant polymer (ASP) flooding at Mangla. Besides this, the company has implemented digital oil field across Rajasthan and Ravva, which provide real-time data access. It is also using hydrofac technology to monetize tight oil & gas formation.

USD1b initial capex firmed up

VNDL has charted USD955m capex plan, which will increase EUR by 174mmboe (see Exhibit below). This will translate into average of 37koepd production over 13 years.

Exhibit 4: Key projects

	EUR (mmboe)	Capex (USD m)	Status
RDG	86	440	Ph. 1: Commencement in progress Phase2: by H1 CY19
Mangla	4	40	First oil by FY18Q2
Liquid Handling	12	120	Project to start in FY18
Bhagyam EOR	25	100	FDP submitted to JV partner
Aishwariya EOR	15	60	FDP submitted to JV partner
Aishwariya Barmer Hill	32	195	Ph1: FY18Q2; Ph2: to begin in FY18
	174	955	

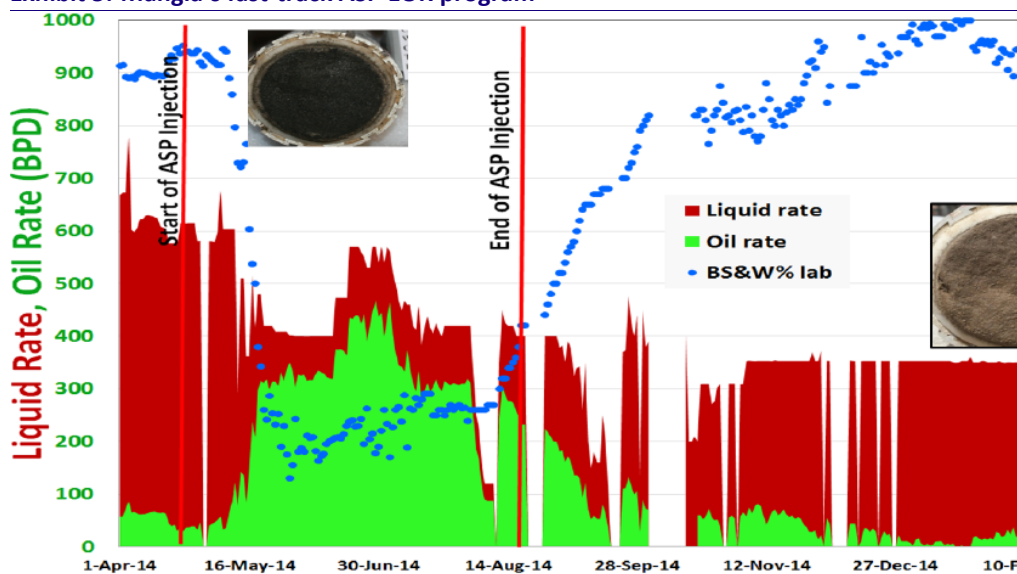
EUR=Estimated Ultimate Recovery

Source: Vedanta

Mangla's ASP EOR pilot project has achieved excellent results, which will boost production by 150mmboe by 2030, equivalent to average production of 32kbpd over 13 years. As a result, Mangla is likely to achieve its peak of ~150kbpd again in 2020.

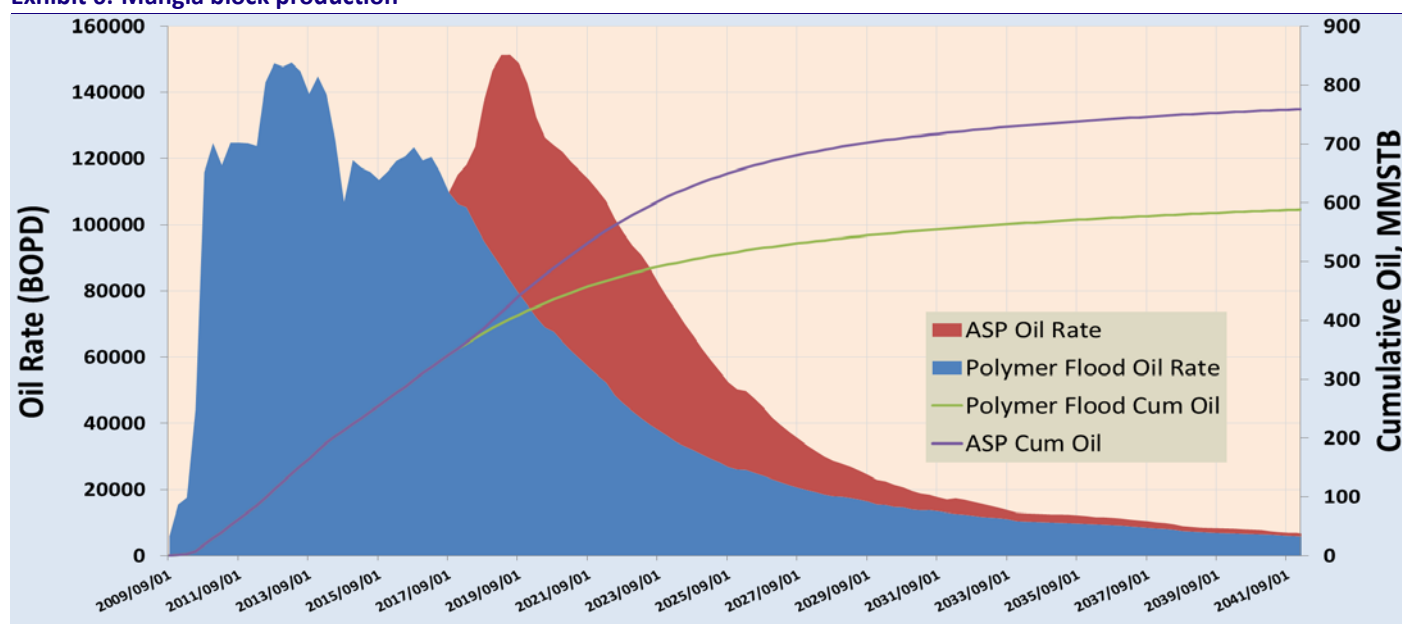
Eight-fold increase in oil rate in ASP pilot;
Incremental recovery>20%;
One of the best published ASP pilot performance results in the world

Exhibit 5: Mangla's fast-track ASP EOR program



Source: Vedanta

Exhibit 6: Mangla block production



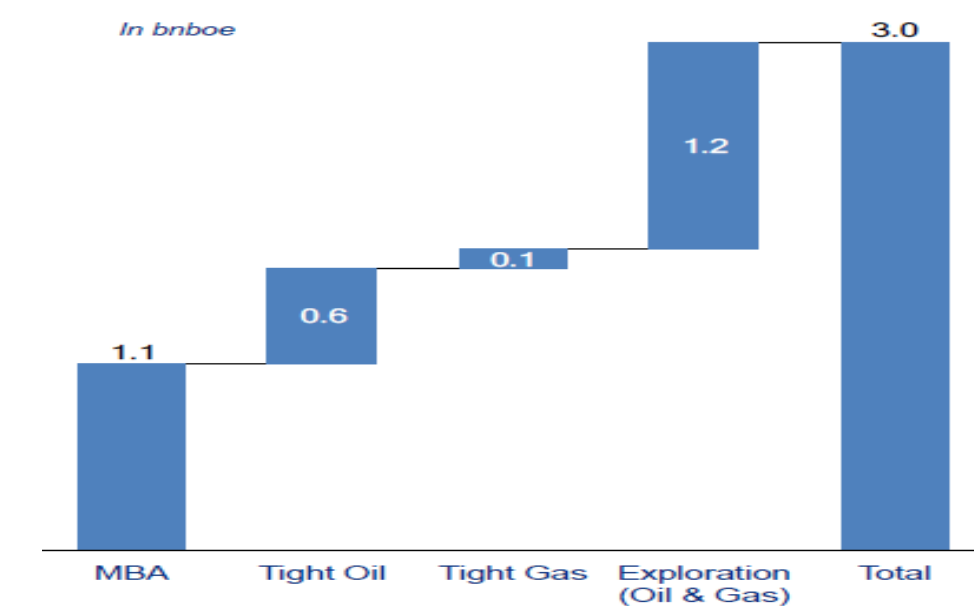
Source: Vedanta

Realizing the 500kbopd and >3b reserve plan

VNDL's vision is to increase ultimate production to 500kbopd.

- MBA fields with EOR techniques can achieve a recovery rate of 50% of HIIP
- With use of fracking technologies, opportunity in tight oil and satellite fields can be unlocked
- RDG gas recovery rates can reach to 60% of inplace volumes by use of proven multi-stage fracking technology
- Further exploration in Barmer basin could add to HIIP volumes
- Integrated development of KG offshore offers opportunity to add value

Exhibit 7: Mangla's fast-track ASP EOR program



Source: Vedanta

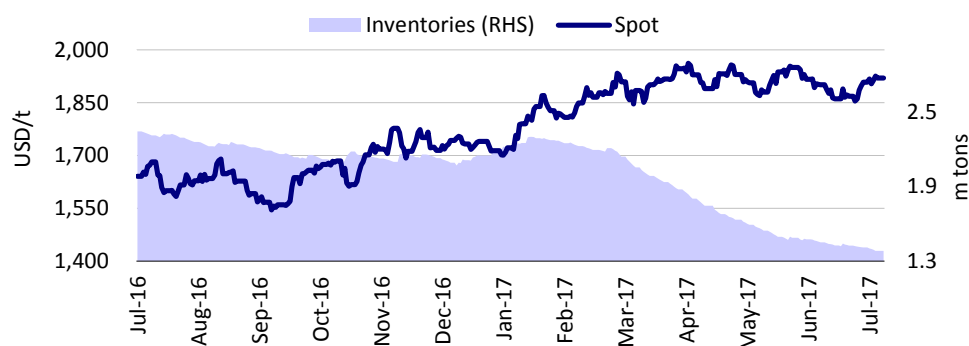
Aluminum: Strong guidance on smelter ramp-up

Raising FY19E volumes by 17% to 2mt

We have upgraded aluminum volume estimate by 7%/17%/16% to 1.5mt/2.0mt/2.2mt for FY18E/19E/20E (Exhibit 13:), driven by management's strong guidance that the three new smelters at Jharsuguda will achieve full ramp-up by 3QFY18, assuming no further pot outage.

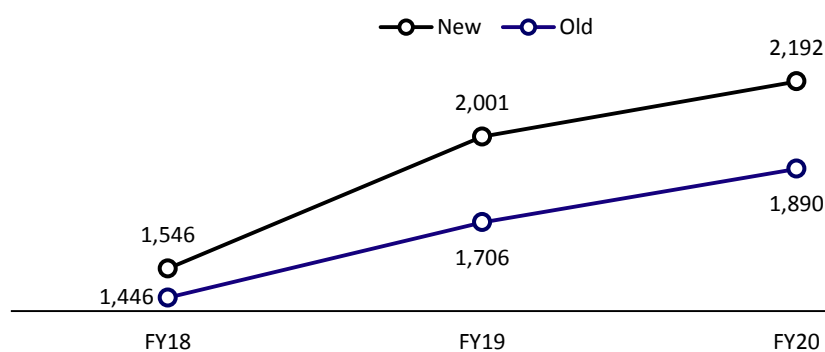
- Balco 325kt smelter is now fully operational, and would be capitalized in 1QFY18.
- Of the four lines at the new 1,250kt Jharuguda smelter, the first line has 81 pots operational and full ramp-up is likely by 3QFY18; the second line is already capitalized and operating at full rate; and the third line has 139 pots operational and full ramp-up is likely by 3QFY18 as well.
- We are not factoring in any volumes from the fourth line due to constraints in availability of power.
- LME estimate remains unchanged at USD1,846/1,825/1,825 per ton for FY18E/19E/20E (spot is USD1,912 per ton). EBITDA from the aluminum business is upgraded by 6%/15%/14% to INR34b/44b/47b for FY18E/19E/20E, on volumes upgrade. At USD100 per ton higher LME, consolidated EBITDA would be higher by 3-4% and target price by INR26/share.

Exhibit 8: LME aluminum (USD/t) and inventories (m tons)



Source: MOSL, Company

Exhibit 9: Vedanta aluminum volumes – new and old (kt)



Source: MOSL, Company

Zinc concentrate supply is tighter than metal

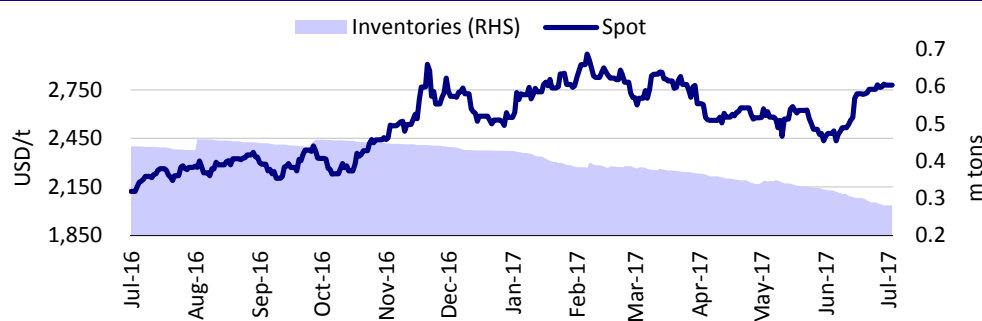
Raising LME assumption and earnings

Zinc concentrate supply is tighter than the metal. Glencore too has kept away from opening 500ktpa mothballed capacity, despite a rally in zinc prices. On the other hand, demand growth has been strong, which augurs well for zinc prices. We are raising LME assumptions from USD2,800 to USD3,200/t.

The global zinc market remains in tight supply amid strong demand growth and supply cuts. Despite a sharp increase in zinc prices (Exhibit 7:), well above the marginal cost curve, zinc concentrate supply has struggled to match demand. Metal deficit, as reported by ILZSG, increased from 73kt in March 2017 to 92kt in April 2017, and was the highest since May 2016 (Exhibit 8:). The concentrate deficit has also increased sharply in March/April 2017 to ~130kt from an average of ~30kt in the prior nine months (Exhibit 3). According to ILZSG, zinc demand grew 3.7% YoY in 4MCY17, accelerating from 2.9% growth in CY16 and a decline of ~2% YoY in CY15 (Exhibit 10:). According to ILZSG's recent forecast, the zinc concentrate market would continue to be in deficit in CY17 (Exhibit 11:).

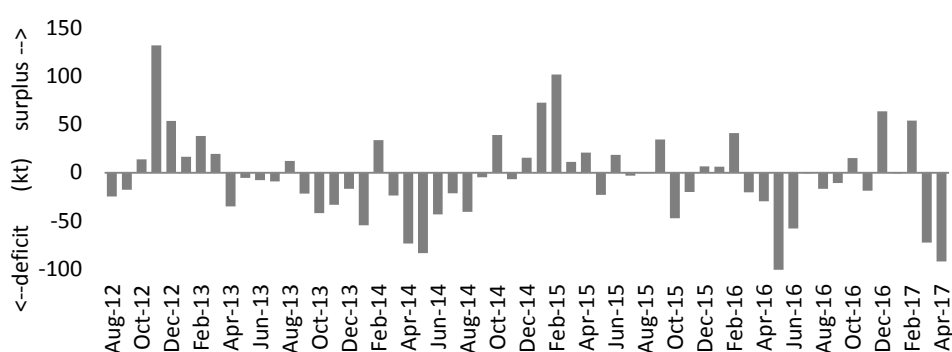
Amid strong market fundamentals, we have upgraded LME zinc price estimate from USD2,800 per ton to USD3,200 per ton. Resultantly, EBITDA for Hindustan Zinc is upgraded by 11%/21%/21% to INR126b/150b/153b for FY18E/19E/20E. EBITDA for Zinc International is upgraded by 16%/33%/33% to INR14b/19b/32b for FY18E/19E/20E.

Exhibit 10: LME zinc prices (USD/t) and inventory (m tons)



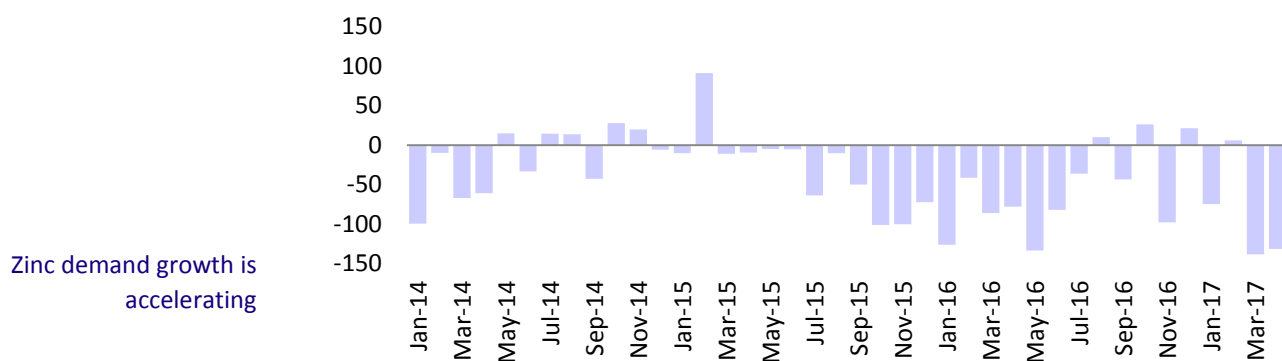
Source: MOSL, ILZSG

Exhibit 11: Global zinc metal surplus/(deficit) – kt

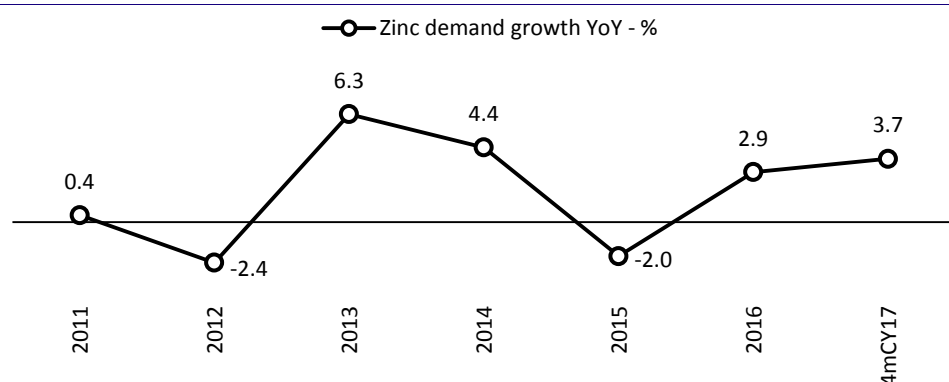


Source: MOSL, ILZSG

Metal deficit has increased from 73kt in March to 92kt in April 2017, and is the highest since May 2016

Exhibit 12: Global zinc concentrate surplus/(deficit) – kt

Source: MOSL, ILZSG

Exhibit 13: Zinc demand growth YoY - %

Source: MOSL, Company

Exhibit 14: Zinc demand and supply - kt

(000 tons)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017E
Mine Production	11,128	11,881	11,601	12,360	12,584	12,892	13,045	13,499	13,581	12,837	13,700
YoY change (%)	6.7	6.8	-2.4	6.5	1.8	2.4	1.2	3.5	0.6	-5.5	6.7
Metal production	11,345	11,774	11,280	12,869	13,037	12,607	13,004	13,485	13,651	13,711	14,080
YoY change (%)	6.7	3.8	-4.2	14.1	1.3	-3.3	3.1	3.7	1.2	0.4	2.7
Metal Consumption	11,276	11,574	10,914	12,628	12,679	12,378	13,160	13,735	13,462	13,856	14,300
YoY change (%)	2.5	2.6	-5.7	15.7	0.4	-2.4	6.3	4.4	-2.0	2.9	3.2
Metal surplus (deficit)	69	200	366	241	358	229	-156	-250	189	-145	-220
Mine surplus (deficit)	-148	307	687	-268	-95	514	-115	-236	119	-1,019	-600
LME(3M) average US\$/ton	3,249	1,901	1,689	2,185	2,200	1,946	1,909	2,095	1,928	2,089	

Source: MOSL, ILZSG

Financials and Valuations

Income Statement									INR m
Y/E March	FY12	FY13	FY14	FY15	FY16	FY17	FY18E	FY19E	FY20E
Net Sales	83,101	25,544	725,850	749,223	642,618	722,250	842,402	993,974	1,077,340
Total Expenses	48,100	20,737	469,210	527,841	491,102	508,931	581,115	675,871	737,670
EBITDA	35,001	4,808	256,640	221,381	151,516	213,319	261,287	318,103	339,670
As % of Net Sales	42.1	18.8	35.4	29.5	23.6	29.5	31.0	32.0	31.5
EBITDA attribute	35,001	4,808	174,984	159,422	129,080	175,512	208,539	255,828	274,993
DDA	1,061	1,975	84,250	71,616	85,724	62,915	67,048	72,686	78,767
EBIT	33,939	2,833	172,390	149,765	65,791	150,404	194,240	245,417	260,904
Finance cost	4,333	4,394	61,110	56,989	57,781	58,550	59,248	55,984	55,102
Other income	2,346	539	23,090	28,910	44,436	45,806	41,658	38,221	44,460
PBT	31,952	-1,022	134,370	121,686	52,446	137,660	176,650	227,654	250,262
Tax	10,214	-429	10,000	19,488	-106,776	37,783	48,485	62,484	68,689
Rate (%)	32.0	42.0	7.4	16.0	-203.6	27.4	27.4	27.4	27.4
PAT	21,739	-593	124,370	102,199	159,221	99,877	128,165	165,170	181,573
EO expense (Income)			-580	186,465	337,847	1,144	0		
PAT (after EO)	21,739	-593	124,950	-84,266	-178,626	98,733	128,165	165,170	181,573
Minority interests	0	0	73,430	42,704	-55,919	43,584	37,186	45,658	47,272
Share in Asso.	5,877				2	-27	50	9	11
Attrib. PAT (after MI & asso)	27,616	-593	50,940	59,495	215,143	56,266	91,029	119,521	134,312

Balance Sheet (Consolidated)									INR m
Y/E March	FY12	FY13	FY14	FY15	FY16	FY17	FY18E	FY19E	FY20E
Share Capital	869	869	2,965	2,965	2,965	3,718	3,718	3,718	3,718
Reserves	150,313	173,885	727,122	584,398	437,427	601,284	637,124	693,042	761,987
Net Worth	151,182	174,754	730,087	587,363	440,392	605,001	640,841	696,759	765,705
Minority Interest	0	0	337,975	467,765	365,611	139,279	176,466	222,123	269,395
Total Loans	37,413	45,015	805,660	777,054	812,934	906,308	836,280	810,322	810,322
Deferred Tax Liability	1,046	253	27,352	82,551	-52,679	-54,084	-49,761	-44,191	-38,068
Capital Employed	189,641	220,022	1,901,073	1,914,733	1,566,258	1,596,505	1,603,826	1,685,013	1,807,354
Gross Block	40,722	50,990	1,163,255	1,566,988	1,506,034	1,641,342	1,726,779	1,836,760	1,945,800
Less: Accum. Deprn.	7,651	9,626	291,200	563,103	728,375	774,935	841,983	914,669	993,435
Net Fixed Assets	33,071	41,365	872,054	1,003,885	777,659	866,407	884,796	922,092	952,365
Capital WIP	9,830	7,225	431,277	400,234	279,260	176,709	149,675	92,385	41,125
Investments	136,626	158,820	2,086	323	488	729	779	788	798
WC. Assets	24,484	21,481	835,766	749,569	809,719	871,531	827,075	943,197	1,094,736
Inventory	8,752	9,610	90,338	86,905	80,117	96,279	110,782	130,714	141,678
Account Receivables	5,494	1,424	46,537	35,604	25,279	34,093	39,235	46,295	50,177
Cash and Bank Balance	6,017	2,130	453,850	505,582	570,460	610,119	546,018	635,148	771,841
Loans and advances	4,222	8,318	245,041	121,478	133,864	131,040	131,040	131,040	131,040
WC. Liability & Prov.	14,370	8,870	240,110	239,277	300,867	318,871	258,499	273,448	281,671
Trade payables	11,502	5,471	41,346	53,533	62,124	71,288	83,086	98,036	106,258
Provisions & Others	2,868	3,398	198,764	185,744	238,743	247,583	175,413	175,413	175,413
Net WC. Assets	10,114	12,612	595,656	510,292	508,852	552,660	568,576	669,748	813,065
Misc Exp									
Appl. of Funds	189,641	220,022	1,901,073	1,914,733	1,566,258	1,596,505	1,603,826	1,685,013	1,807,354

Financials and Valuations

Ratios

Y/E March	FY12	FY13	FY14	FY15	FY16	FY17	FY18E	FY19E	FY20E
Basic (INR)									
EPS	31.8	-0.7	17.2	20.1	72.6	15.1	24.5	32.2	36.1
Cash EPS	33.0	1.6	45.6	44.2	101.5	32.1	42.5	51.7	57.3
BV/Share	174.0	201.1	246.2	198.1	148.5	162.7	172.4	187.4	206.0
DPS	3.5	3.5	3.3	3.5	5.9	19.5	7.7	10.1	11.3
Payout (%)	13.2	-615.5	22.7	20.9	9.7	154.2	37.7	37.8	37.6
Valuation (x)									
P/E						17.4	10.7	8.2	7.3
Cash P/E						8.2	6.2	5.1	4.6
P/BV (incl.-goodwill)						1.6	1.5	1.4	1.3
EV/Sales						1.9	1.6	1.3	1.1
EV/EBITDA						7.7	6.5	4.9	4.2
Dividend Yield (%)						7.4	2.9	3.8	4.3
Return Ratios (%)									
EBITDA Margins	42.1	18.8	35.4	29.5	23.6	29.5	31.0	32.0	31.5
Net Profit Margins	33.2	-2.3	7.0	7.9	33.5	7.8	10.8	12.0	12.5
RoE	18.3	-0.4	7.7	9.0	41.9	9.7	14.6	17.9	18.4
RoCE (pre-tax)	19.1	1.6	18.4	9.4	6.3	12.4	14.7	17.2	17.5
RoIC (pre-tax)	18.5	1.4	20.7	10.5	5.5	15.2	19.0	23.3	25.0
Working Capital Ratios									
Fixed Asset Turnover (x)	2.5	0.7	1.6	0.8	0.7	0.9	1.0	1.1	1.1
Receivable (Days)	24	20	23	17	14	17	17	17	17
Inventory (Days)	38	137	45	42	46	49	48	48	48
Trade payable (Days)	51	78	21	26	35	36	36	36	36
Leverage Ratio (x)									
Current Ratio	1.7	2.4	3.5	3.1	2.7	2.7	3.2	3.4	3.9
Interest Cover Ratio	8.4	0.8	3.2	3.1	1.9	3.4	4.0	5.1	5.5
Net Debt/EBITDA	0.9	8.9	1.4	1.2	1.6	1.4	1.1	0.6	0.1
Net Debt/Equity	0.2	0.2	0.5	0.5	0.6	0.5	0.5	0.3	0.1

Cash Flow Statement

	FY12	FY13	FY14	FY15	FY16	FY17	FY18E	FY19E	FY20E
EBITDA	35,001	4,808	256,640	221,381	151,516	213,319	261,287	318,103	339,670
Non cash exp. (income)	-3,458	-1,426	-46,653	15,811	-254	1,559			
(Inc)/Dec in Wkg. Cap.	-235	-2,818	-10,239	-25,345	39,820	-7,404	-80,017	-12,043	-6,624
Tax paid	-10,214	429	-43,741	-33,796	-24,513	-20,438	-44,162	-56,913	-62,566
Others									
CF from Op. Activity	21,094	993	156,008	178,051	166,568	187,036	137,108	249,147	270,481
(Inc)/Dec in FA + CWIP	-12,617	-733	-72,836	-106,561	-54,975	-55,010	-58,402	-52,693	-57,780
Free Cash Flow	8,477	260	83,172	71,490	111,593	132,026	78,706	196,454	212,701
(Pur)/Sale of Investments	-145,103	19,088	-4,105	71,972	19,262	26,986			
Interest & Dividend Income	2,346	377	16,060	15,587	10,547	11,451	41,658	38,221	44,460
Investment in subsidiaries	0	-22,194	-1,093	-11,217	1	-30,138			
CF from Inv. Activity	-143,608	-8,088	-61,974	-30,218	-25,165	-46,712	-16,744	-14,471	-13,320
Debt raised/(repaid)	27,419	7,602	18,380	-45,596	12,278	91,499	-79,078	-30,100	0
Dividend (incl. tax)	0	0	-22,144	-31,063	-32,218	-129,355	-46,140	-59,461	-65,366
Interest paid	-4,333	-4,394	-46,752	-62,898	-57,966	-61,501	-59,248	-55,984	-55,102
CF from Fin. Activity	23,086	3,208	-50,516	-139,558	-76,526	-100,665	-184,465	-145,546	-120,468
(Inc)/Dec in Cash	-99,428	-3,887	43,518	8,276	64,878	39,660	-64,101	89,130	136,693
Add: Opening Balance	96,968	6,017	410,333	453,850	505,582	570,460	610,119	546,018	635,148
adjustments									
Closing Balance	-2,460	2,130	453,850	505,582	570,460	610,119	546,018	635,148	771,841

E: MOSL Estimates

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