MOTILAL OSWAL

31 January 2018

3QFY18 Results Update | Sector: Metals

Vedanta

BSE SENSEX	S&P CNX
35,965	11,028
Bloomberg	VEDL IN
Equity Shares (m)	3,717
M.Cap.(INRb)/(USDb)	1,265.0 / 19.9
52-Week Range (INR)	356/218
1, 6, 12 Rel. Per (%)	-3/10/4
Avg Val, INRm	3140.0
Free float (%)	49.9

Financials & Valuations (INR b)

Y/E Mar	2018E	2019E	2020E
Net Sales	876	1,065	1,120
EBITDA	199.9	301.8	308.2
PAT	88.3	158.9	165.6
EPS (INR)	23.8	42.7	44.5
Gr. (%)	56.9	79.9	4.2
BV/Sh (INR)	174.3	196.2	219.5
RoE (%)	14.1	23.1	21.4
RoCE (%)	14.1	21.1	19.9
P/E (x)	14.3	7.9	7.6
P/BV (x)	1.9	1.7	1.5

Estimate change

TP change

Rating change

CMP: INR340 TP: INR416(+23%) Buy

In-line; zinc & oil prices, TSPL's PAF raise EBITDA by 13%

Aluminum costs and lower TcRc are drag; Maintain Buy

Vedanta's 3QFY18 EBITDA increased on expected lines by 13% QoQ to INR67.6b, driven by higher zinc and oil prices, volume ramp-up at aluminum smelters, and improved plant availability at TSPL. Finance cost declined 5% QoQ to INR13b. Other income was impacted by hardening of yields. Tax rates were on higher side. Adjusted PAT increased 16% QoQ to INR22b, lower than our estimate.

- Work on expansion of the new copper smelter at Tuticorin has stared, and the project is likely to be completed in FY20. Benchmark TcRc has declined 11% to USD21.3/lb for CY18.
- Aluminum smelters continue to ramp up to produce 2mt in FY19, but risk to margin remains due to continued inflation of input costs.
- Iron ore business has got one-time additional 3mt permit in Goa for 4QFY18, but it is unlikely to boost overall volumes due to poor demand for low grade.
- Zinc business remains strong, although there are some input cost pressures due to higher commodity prices. Zinc-India is on track for 1.2mt in FY20. Zinc-Int's Gamsberg 250kt project too is on track for production start in mid-2018.

Maintain Buy

- Vedanta has a portfolio of high-quality base metals and O&G assets, and is well poised to benefit from the bullish price outlook for zinc.
- Buoyancy in oil prices is upside risk, while lower TcRc and cost pressure in aluminum pose downside risk to estimates. We raise our target price to INR416 (prior: 387) as we roll over to FY19E SOTP.

Quarterly Performance (Consolidated)

Y/E March	FY17				FY18				FY17	FY18E		vs Est.
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4QE			3QE	%
Net Sales	144,371	158,596	194,171	225,113	182,850	215,900	243,610	233,947	722,250	876,307	235,011	4
Change (YoY %)	-15.2	-4.2	30.5	40.9	26.7	36.1	25.5	3.9	12.4	21.3	21.0	
Total Expenditure	109,975	111,922	134,207	151,612	134,110	159,210	175,980	158,297	508,931	627,597	167,226	5
EBITDA	34,396	46,674	59,964	73,501	48,740	56,690	67,630	75,650	213,319	248,710	67,786	0
Change (YoY %)	-24.2	20.9	106.4	111.7	41.7	21.5	12.8	2.9	40.8	16.6	13.0	
As % of Net Sales	23.8	29.4	30.9	32.7	26.7	26.3	27.8	32.3	29.5	28.4	28.8	
Finance cost	13,931	14,503	15,082	15,035	15,920	13,840	13,060	13,923	58,550	56,743	13,702	-5
DD&A	14,920	15,289	15,203	16,037	13,860	14,260	15,490	15,645	62,915	59,255	14,403	8
Other Income	10,935	12,521	9,160	9,208	10,550	8,760	5,730	11,360	45,806	36,400	7,002	-18
PBT (before EO item)	16,480	29,403	38,840	51,637	29,510	37,350	44,810	57,442	137,660	169,112	46,683	-4
EO exp. (income)	0	0	0	1,144	0	-1,860	1,580		1,144	-280		
PBT (after EO item)	16,480	29,403	38,840	50,493	29,510	39,210	43,230	57,442	136,516	169,392	46,683	-7
Total Tax	4,914	6,623	8,968	20,604	6,810	9,350	13,640	15,766	37,783	45,566	12,813	6
% Tax	29.8	22.5	23.1	40.8	23.1	23.8	31.6	27.4	27.7	26.9	27.4	
Reported PAT	11,567	22,780	29,872	29,889	22,700	29,860	29,590	41,676	98,733	123,826	33,870	-13
Profit from Asso.	0	2	-20	-8	0	0	0	15	-27	15	5	-100
Minority interest	5,417	10,261	11,188	15,775	7,450	8,950	9,060	9,538	43,584	34,998	8,634	5
Adjusted PAT	6,150	12,521	18,663	15,249	15,250	19,050	22,110	32,154	56,266	88,564	25,241	-12
Change (YoY %)	-56.4	50.1	-1,124.9	34.8	148.0	52.1	18.5	110.9	-73.8	57.4	35.2	

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Exhibit 1: EBITDA by businesses – INR m

Y/E March	FY17				FY18				FY17	FY18E	FY19E	FY20E
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4QE				
EBITDA	**34,396**	**46,674**	**59,964**	**73,501**	**48,740**	**56,690**	**67,630**	**75,286**	**213,319**	**248,346**	**377,325**	**381,221**
Copper	4,379	3,779	4,479	4,312	2,130	3,920	3,335	4,114	16,926	13,499	17,390	17,780
Aluminum	2,660	4,200	6,520	9,900	5,280	4,570	6,100	7,435	23,057	23,385	56,312	55,971
Iron ore	3,730	1,050	4,710	3,870	400	-40	2,310	3,340	13,224	6,010	8,779	7,252
Power	3,870	4,030	4,452	4,565	1,100	3,660	5,950	4,933	16,425	15,643	16,235	15,552
Zinc-India	11,309	20,767	27,834	37,480	23,840	30,240	32,440	36,372	95,302	122,892	181,420	170,501
Zinc-International	2,490	3,390	2,020	1,380	3,210	3,890	4,460	4,220	9,261	15,780	28,770	42,011
Oil&Gas	7,937	10,391	10,837	11,210	13,850	11,760	13,590	14,871	40,132	54,071	68,421	72,152
Others	-1,978	-934	-887	784	-1,070	-1,310	-555		-1,008	-2,935	0	0

Source: MOSL, Company

Copper: 2018 benchmark TcRcs settled 11% lower YoY

- Copper production was down 5% QoQ to 101kt. Sales declined ~3% QoQ to 102kt.
- TcRc was down 4% QoQ to USc 20.8/lb. Net CoP of USc 5.6/lb was higher QoQ on higher input commodity prices. As a result, EBITDA declined ~18% QoQ (-26% YoY) to INR3.3b.
- Benchmark TcRC was CY2018 was settled at USD21.3/lb, lower by 11% YoY. ~90% of its concentrate volumes are under long-term contracts.
- Work on Tuticorin capacity expansion by 400kt has commenced. Site mobilization and civil work commenced. Completion is targeted by Q3FY20.

Exhibit 2: Copper Segment – INR million

	Q1 17	Q2 17	Q3 17	Q4 17	Q1 18	Q2 18	Q3 18	Q4 18E	FY17	FY18E	FY19E	FY20E
Copper LME ($/ton)	4,729	4,771	5,277	5,831	5,658	6,342	6,808	5,475	5,152	6,071	5,464	5,455
Tc/rc Reported (USc/lb)	22.9	20.5	22.2	23.8	20.8	21.6	20.8	21.0	22.4	21.0	21.0	21.0
USD/INR	66.9	66.9	67.4	67.0	64.5	64.3	64.8	65.0	67.1	64.6	65.0	65.0
Cons. EBITDA	**4,379**	**3,779**	**4,479**	**4,312**	**2,130**	**3,920**	**3,335**	**4,114**	**16,926**	**13,499**	**17,390**	**17,780**
Standalone												
Net Sales	**40,134**	**42,011**	**47,527**	**57,658**	**44,400**	**52,820**	**55,220**	**51,518**	**187,331**	**203,958**	**194,641**	**198,586**
Production (kt)	100	97	102	103	90	106	101	104	402	401	399	408
Sales (kt)	98	96	101	104	89	105	102	104	399	400	399	408
NSR (USD/t)	6,123	6,537	6,980	8,278	7,739	7,823	8,355	7,621	7,194	8,113	7,506	7,497
Premium	1,394	1,766	1,703	2,447	2,081	1,481	1,547	2,146	2,042	2,042	2,042	2,042
EBITDA	**4,776**	**3,664**	**4,372**	**4,509**	**2,290**	**3,920**	**3,230**	**3,640**	**17,321**	**13,080**	**17,955**	**18,360**
EBITDA/t - INR	48,736	38,170	43,285	43,352	25,731	37,334	31,667	35,000	43,411	32,701	45,000	45,000

Source: MOSL, Company

Aluminum – Smelter ramp-up on track

- Aluminum production (incl. trail) increased ~11% QoQ to 445kt, achieving a run-rate of ~1.8mt. Sales increased ~16% QoQ to 441kt.
- Reported realization increased USD96/t QoQ to USD2,249/t, but EBITDA increased by USD12/t QoQ to USD224/t on higher alumina and coal cost, partly offset by lower power import cost (due to outage in 2Q) and no revival of operations.
- Aluminum EBITDA increased 33% QoQ to INR6.1b on higher volumes and higher realization.

- CoP is guided to decline from USD1,945/t QoQ to USD1,850-1,900/t for Q4FY18 due to improved linkage coal availability and elimination of one-off impacts of power imports and revival costs.
- Progress on smelter ramp-up
  - Jharsuguda-II 1st line – Operating pots have increased from 81 in 4QFY16 to 187 in 1QFY18 and 301 in 2QFY18 and achieved full ramp-up in 3QFY18.
  - Jharsuguda-II 3rd line – Operating pots have increased from 139 in 4QFY16 to 152 in 1QFY18, 156 in 2QFY18 and 193 in 3QFY18. Full ramp-up is expected by 4QFY18.

Exhibit 3: Aluminum Segment – INR million

	Q1 17	Q2 17	Q3 17	Q4 17	Q1 18	Q2 18	Q3 18	Q4 18E	FY17	FY18E	FY19E	FY20E
Aluminum (USD/t)	1,570	1,619	1,710	1,851	1,909	2,009	2,097	2,000	1,687	2,004	2,000	2,000
Alumina (USD/t)	257	266	277	345	295	331	450	400	286	369	380	380
USD/INR	66.9	66.9	67.4	67.0	64.5	64.3	64.8	65.0	67.1	64.6	65.0	65.0
Revenue	**27,579**	**32,877**	**38,579**	**46,516**	**45,500**	**52,120**	**65,140**	**67,897**	**145,551**	**230,657**	**306,765**	**336,614**
Production (kt) ex trial	228	254	283	307	318	383	427	444	1,072	1,572	2,001	2,192
Jharsuguda	147	161	180	196	193	241	285	300	684	1,019	1,425	1,616
Balco	81	93	103	111	125	142	142	144	388	553	576	576
Trial	16	41	36	46	34	16	18		139	68		
Sales (kt) incl. trial	232	284	322	371	338	380	441	444	1,209	1,603	2,001	2,192
NSR (USD/t)	1,808	1,934	2,024	2,262	2,219	2,116	2,355	2,353	2,025	2,270	2,359	2,363
Premium over LME (%)	15.2	19.4	18.4	22.2	16.3	5.3	12.3	17.6	20.0	13.3	17.9	18.1
EBITDA	**2,660**	**4,200**	**6,520**	**9,900**	**5,280**	**4,570**	**6,100**	**7,435**	**23,280**	**23,385**	**56,312**	**55,971**
EBITDA/t	174	247	342	481	258	186	220	258	324	230	433	393
CoP (USD/ton) -Reported	**1,475**	**1,461**	**1,428**	**1,492**	**1,727**	**1,857**	**1,945**					
Jharsuguda	1,459	1,412	1,388	1,493	1,692	1,853	1,919					
Balco	1,504	1,545	1,499	1,489	1,780	1,865	2,000					

Source: MOSL, Company

Iron ore – Weak demand for lower grade ore impacts performance

- Sales were down from 3.7mt in 3QFY17 to 1.8mt in 3QFY18 due to weak demand for lower grade ore. EBITDA was down from INR4.7b in 3QFY17 to INR2.3b in 3QFY18 on lower volumes.
- Goa has commenced production of higher quality ore through beneficiation and blending aiding realization in the quarter. Additional allocation of ~3mt was received in Goa. Mining cap was increased in Karnataka from 30 to 35mt, but company wise allocation is in progress

Exhibit 4: Iron ore Segment – INR million

	Q1 17	Q2 17	Q3 17	Q4 17	Q1 18	Q2 18	Q3 18	Q4 18E	FY17	FY18E	FY19E	FY20E
62% benchmark (USD/dmt)	56	58	71	86	61	72	65	65	64	66	65	56
Sales Qty ('000 dmt)	**2,600**	**800**	**3,700**	**3,000**	**2,300**	**700**	**1,800**	**2,950**	**10,100**	**7,750**	**7,750**	**7,750**
Goa	2,150	300	2,650	2,300	1,900	100	1,000	2,500	7,400	5,500	5,500	5,500
Karnataka	450	500	1,050	700	400	600	800	450	2,700	2,250	2,250	2,250
Pig iron	169	201	141	182	134	154	171	213	693	672	637	689
Net Sales	**9,700**	**4,900**	**14,050**	**12,640**	**6,870**	**5,420**	**8,430**	**11,530**	**41,290**	**32,250**	**31,136**	**30,420**
EBITDA	**3,730**	**1,050**	**4,710**	**3,870**	**400**	**-40**	**2,310**	**3,340**	**13,360**	**6,010**	**8,779**	**7,252**

Source: MOSL, Company

Power – Higher availability at Talwandi Saboo drives improvement

- EBITDA increased QoQ from INR3.7b to INR5.9b on higher availability at Talwandi Saboo and higher PLF at Balco, partly offset by higher coal cost.
- Talwandi Saboo availability increased QoQ from 87% to 97%. Jharsuguda operated at PLF of just 5% due to ash dyke incident and temporary coal shortage.
- Coal linkage represented 37% of coal requirement in 3Q, down from ~51% in 1Q. Coal availability is improving in 4Q, but is unlikely to reach 1Q levels. It has secured additional ~2mt coal in recent Tranche-III coal e-auction by Coal India.

Exhibit 5: Power Segment – INR million

	Q1 17	Q2 17	Q3 17	Q4 17	Q1 18	Q2 18	Q3 18E	Q4 18E	FY17	FY18E	FY19E	FY20E
Sales (m kwh)	**3,009**	**3,047**	**3,454**	**3,458**	**1,275**	**368**	**634**	**1,681**	**6,629**	**3,958**	**6,915**	**6,915**
S/A Jha. 600 MW	892	605	879	952	564	93	111	887	3,328	1,655	3,548	3,548
Subs	2,117	2,442	2,575	2,506	711	275	523	794	3,301	2,303	3,367	
Balco 600MW	607	549	660	793	551	132	466	733	2,609	1,882	2,933	2,933
MALCO	90	56	56	56	4	0	0	0	258	4	0	0
HZL Wind Power	148	158	67	61	156	143	57	61	434	417	434	434
TSPL	1,272	1,679	1,792	1,596	563	2,582	2,512		11,996	9,092	9,092	8,994
TSPL PAF (%)	72	77	77	85	20	87	97		79	80	80	80
Revenue	**11,833**	**13,839**	**15,323**	**15,085**	**7,330**	**14,310**	**17,240**	**16,047**	**56,080**	**54,927**	**59,774**	**59,348**
Standalone	2,045	1,483	2,163	2,329	1,350	100	210	2,160	8,019	3,820	6,988	7,058
(INR/kwh)	2.3	2.5	2.5	2.4	2.4	1.1	1.9	2.4				
EBITDA	**3,870**	**4,030**	**4,452**	**4,565**	**1,100**	**3,660**	**5,950**	**4,933**	**16,527**	**15,643**	**16,235**	**15,552**
Standalone	525	33	660	433	277	-203	-253	415	1,609	235	923	736
(INR/kwh)	0.6	0.1	0.8	0.5	0.5	-2.2	-2.3	0.5				
Subs	3,345	3,608	3,791	4,132	764	3,834	6,144	4,518	14,816	13,686	15,312	14,816

Source: MOSL, Company

Zinc India – LME and volume gains partly offset by cost increase

- HZL's 3QFY18 EBITDA increased 17% YoY/7% QoQ to INR32.4b, driven by higher LME and volumes, partly offset by an increase in cost.
- Mine metal production increased 10% QoQ (-13% YoY, strong base) to 240kt. Zinc production rose 7% QoQ (-18% YoY) to 194kt, while lead production increased 21% QoQ/18% YoY to 46kt. Silver production growth was slower at 4% QoQ to 132t on WIP build-up.
- Reported CoP (ex-royalty) increased, on expected lines, by USD38/t QoQ to USD1,022/t due to higher coke and coal cost, and grade mix.
- CoP is guided at USD950-975/t for FY18, implying some moderation in 4Q, driven by better grade and coal linkage

Exhibit 6: Zinc India segment – INR million

Y/E March	FY17				FY18				FY17	FY18E	FY19E	FY20E
	1Q	2Q	3Q	4Q	1Q	2Q	3QE	4QE				
Zinc refined (kt)	120	148	211	217	190	193	200	209	696	792	854	934
Lead refined (kt)	23	32	36	47	34	40	45	41	138	160	179	202
Silver (tonnes)	88	107	117	135	110	146	132	124	447	512	545	628
Zinc LME (USD/t)	1,918	2,252	2,518	2,777	2,589	2,950	3,236	3,200	2,366	2,994	3,800	3,200
Net Sales	**25,306**	**35,257**	**49,799**	**62,602**	**45,760**	**53,090**	**59,220**	**62,227**	**172,964**	**220,297**	**294,833**	**284,857**
Change (YoY %)	-30.3	-12.6	45.2	99.9	80.8	50.6	18.9	-0.6	21.6	27.4	33.8	-3.4
EBITDA	**11,309**	**20,767**	**27,834**	**37,480**	**23,840**	**30,240**	**32,440**	**36,372**	**97,390**	**122,892**	**181,420**	**170,501**
Change (YoY %)	-42.5	2.6	88.3	186.5	110.8	45.6	16.5	-3.0	43.7	26.2	47.6	-6.0

Source: MOSL, Company

Zinc International – Higher LME and volumes drive performance

- Production and sales increased 9% QoQ to 47kt. CoP was down 6% QoQ to USD1,383/t on higher volumes. EBITDA increased ~15% QoQ to INR4.5b.
- Production at Skorpion was best in last 6 quarters due to higher blended grades and refinery performance. While at BMM was best in 4 years on grade and improvement initiatives.
- Production guidance was unchanged at ~160kt for FY18. CoP is guided to temporarily increase to USD1,700/t due to currency appreciation and mine expansion (Skorpion pit 112 extension).
- Gamsberg project remains on target for first production by mid CY18.

Exhibit 7: Zinc International segment – INR million

	1QFY17	2QFY17	3QFY17	4QFY17	1QFY18	2QFY18	3QFY18	4QFY18	FY17	FY18E	FY19E	FY20E
Zinc - USD/t	1,918	2,252	2,518	2,777	2,589	2,950	3,236	3,200	2,366	2,994	3,800	3,200
Lead - USD/t	1,719	1,870	2,150	2,276	2,159	2,332	2,492	2,750	2,004	2,433	2,750	2,778
USD/INR	66.88	66.94	67.42	66.98	64.47	64.30	64.8	65.0	67.1	64.6	65.0	65.0
Production (kt)	**43**	**39**	**32**	**41**	**32**	**43**	**47**	**41**	**155**	**163**	**201**	**349**
Black Mountain	19	16	15	20	18	20	21	20	70	79	80	80
Skorpion	24	23	17	21	14	23	26	21	85	84	91	89
Gamsberg											30	180
Sales (kt)	**34**	**44**	**34**	**28**	**45**	**43**	**47**	**41**	**140**	**176**	**201**	**349**
Black Mountain							21	20		41	80	80
Skorpion							26	21		47	91	89
Gamsberg											30	180
Revenue	**4,530**	**6,850**	**5,870**	**5,040**	**8,010**	**8,530**	**9,700**	**8,441**	**22,290**	**34,681**	**49,694**	**72,668**
NSR (USD/t)	1,992	2,326	2,561	2,688	2,761	3,085	3,185	3,200	2,374	3,056	3,800	3,200
Expenditure	2,040	3,460	3,850	3,660	4,800	4,640	5,240	4,220	13,010	18,900	20,924	30,657
CoP (USD/ton) - reported	1,226	1,446	1,615	1,439	1,690	1,470	1,383	1,500	1,432	1,511	1,500	1,250
EBITDA	**2,490**	**3,390**	**2,020**	**1,380**	**3,210**	**3,890**	**4,460**	**4,220**	**9,280**	**15,780**	**28,770**	**42,011**

Source: MOSL, Company

Oil and Gas – Targeting ~24% CAGR growth in volumes over FY18-20E

- Rajasthan gross volumes increased 2.5% QoQ to 157bpd, while overall working interest volumes increased 2.2% QoQ to 117.8bpd. Discount to Brent remained high at 13.5% resulting in net realization of USD53/bbl. EBITDA increased 16% QoQ to INR13.5b on realization (~17% QoQ). Rajasthan blended cost including EOR was at USD6.4/boe.
- Rajasthan 4Q production is expected at 165kboepd. Capex is estimated at USD250m. Overall gross production is guided to increase at ~24% CAGR of FY18-20E to ~287kboepd.

Exhibit 8: Oil and Gas segment – INR million

Y/E March	FY17				FY18				FY17	FY18E	FY19E	FY20E
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4QE				
Brent crude - USD/bbl	46.0	46.0	51.1	54.6	49.6	52.1	61.3	60.0	48.6	56.1	60.0	60.0
Gross volumes - kbpd												
Rajasthan	166.9	167.7	154.3	157.3	159.4	153.2	157.1	170.2	161.6	159.9	192.5	206.8
Ravva	19.6	18.8	18.2	17.8	18.4	17.3	16.9	15.7	18.6	16.9	13.8	0.0
Cambay	10.3	9.9	9.4	9.5	9.5	10.5	10.2	10.0	9.8	10.1	9.1	7.8
Working interest - kbpd	125.4	125.6	115.8	117.9	119.5	115.3	117.8	126.6	121.2	119.8	141.5	147.9
Raj. realn. - USD/bbl			46.2	49.4	44.9	45.1	53.0	54.3		50.7	54.3	54.3
Dis. to Brent - %			9.5	9.5	9.5	13.4	13.5	9.5		9.5	9.5	9.5
Revenue - INR m	18,850	20,390	21,494	21,310	22,750	20,990	24,130	25,685	82,040	93,555	119,040	127,027
EBITDA - INR m	7,940	10,390	11,669	11,210	13,850	11,760	13,590	14,871	40,130	54,071	68,421	72,152

Source: MOSL, Company

Exhibit 9: SOTP valuation – INR billion

	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
VEDL (ex HZL)													
Copper	13	17	18	6.5	88	113	116	401	399	408	6,071	5,464	5,455
Aluminum	23	56	56	6.5	152	366	364	1,603	2,001	2,192	2,004	2,000	2,000
Iron ore	6	9	7	6.5	39	57	47	5,500	5,500	5,500	66	65	56
Power(TSPL)	13	13	12	DCF	87	80	76			PPA			
Power(other)	3	4	3	6.5	18	24	22			Merchant and RE			
Zinc-Int	16	29	42	6.5	103	187	273	176	201	349	2,994	3,800	3,200
Oil&Gas	54	68	72	DCF	168	150	132	160	192	207	56	60	60
Sub. Tot.	128	196	211	5.0	654	976	1,030						
Less: Net Debt					539	507	471	USD/INR Avg. --->			64.6	65.0	65.0
Equity Value					**115**	**469**	**559**	USD/INR year end -->			65.0	65.0	65.0
Hind. Zinc													
HZL	123	181	171	6.5	799	1,179	1,108	792	854	934	2,994	3,800	3,200
Less: Net Debt					-221	-316	-413	160	179	202	2,433	2,750	2,750
Equity Value					**1,020**	**1,495**	**1,521**	512	545	628	39	41	41
INR/share of HZL					**241**	**354**	**360**						
VEDL					**Equity Value**								
HZL@64.9%					662	970	987						
VEDL (ex HZL)					115	469	559						
Tot. Equity Value					**777**	**1,440**	**1,546**						
INR/share					**209**	**387**	**416**						

Source: MOSL, Company

Exhibit 10: Distribution of EBITDA - %

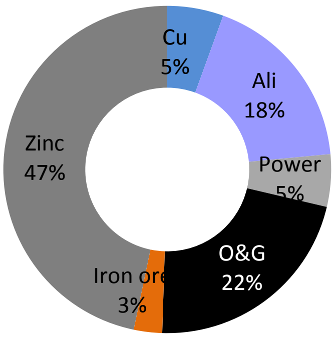


Exhibit 11: Distribution of enterprise value - %

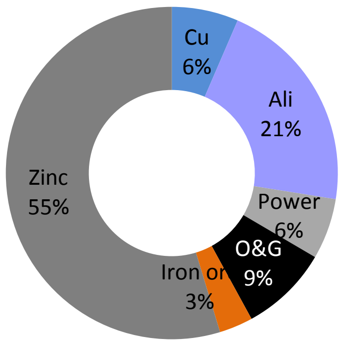


Exhibit 12: Metals valuation

	Rating	CMP	MCAP	EPS			P/E (x)		EV/EBITDA (x)		P/B(x)	
		(INR)	(USD M)	FY18E	FY19E	FY20E	FY19E	FY20E	FY19E	FY20E	FY19E	FY20E
Steel												
Tata Steel	Neutral	705	10,768	62.7	85.3	68.2	8.3	10.3	6.0	7.0	1.6	1.4
JSW Steel	Buy	290	11,027	19.7	24.9	23.8	11.6	12.2	7.9	7.6	2.2	1.9
JSPL	Buy	266	3,830	-11.5	7.3	11.9	36.7	22.5	7.2	6.4	0.8	0.8
SAIL	Sell	89	5,773	-1.4	4.5	6.5	19.7	13.6	10.2	7.6	1.0	0.9
Non-Ferrous												
Hindalco	Buy	256	8,307	18.6	25.9	26.3	9.9	9.7	5.9	5.5	1.5	1.3
Nalco	Neutral	75	3,051	4.6	5.3	5.4	14.3	14.0	6.2	5.8	1.3	1.2
Vedanta	Buy	340	15,826	23.8	42.7	44.5	7.9	7.6	5.1	4.6	1.7	1.5
Rain Ind.*	Buy	381	2,014	25.5	38.9	43.0	9.8	8.8	6.3	5.4	2.6	2.0
Mining												
Coal India	Buy	299	29,653	18.5	26.8	31.1	11.2	9.6	6.1	5.3	6.8	6.3
Hindustan Zinc	Neutral	310	20,597	21.6	33.3	32.1	9.3	9.7	5.5	5.3	3.5	2.8
NMDC	Buy	141	8,764	14.3	14.0	14.7	10.0	9.6	6.2	5.9	1.7	1.5

Source: MOSL, Company

Financials and Valuations

Income Statement (INR Million)

Y/E Mar	2013	2014	2015	2016	2017	2018E	2019E	2020E
Net Sales	**25,544**	**725,850**	**749,223**	**642,618**	**722,250**	**876,307**	**1,065,252**	**1,120,186**
Change (%)	-69.3	2,741.5	3.2	-14.2	12.4	21.3	21.6	5.2
EBITDA	**4,808**	**256,640**	**221,381**	**151,516**	**213,319**	**248,346**	**377,325**	**381,221**
EBITDA Margin (%)	18.8	35.4	29.5	23.6	29.5	28.3	35.4	34.0
Depreciation	1,975	84,250	71,616	85,724	62,915	59,255	64,865	70,903
EBIT	**2,833**	**172,390**	**149,765**	**65,791**	**150,404**	**189,091**	**312,460**	**310,318**
Interest	4,394	61,110	56,989	57,781	58,550	56,743	55,280	54,257
Other Income	539	23,090	28,910	44,436	45,806	36,400	37,235	45,030
Extraordinary items	0	580	-186,465	-337,847	-1,144	280	0	0
PBT	**-1,022**	**134,950**	**-64,779**	**-285,402**	**136,516**	**169,028**	**294,415**	**301,090**
Tax	-429	10,000	19,488	-106,776	37,783	45,466	79,325	81,123
Tax Rate (%)	42.0	7.4	-30.1	37.4	27.7	26.9	26.9	26.9
Min. Int. & Assoc. Share	0	73,430	42,704	-55,919	43,584	34,998	56,208	54,376
Reported PAT	**-593**	**51,520**	**-126,970**	**-122,705**	**55,122**	**88,579**	**158,879**	**165,586**
Adjusted PAT	**-593**	**50,940**	**59,495**	**215,143**	**56,266**	**88,299**	**158,879**	**165,586**
Change (%)	-102.1	-8,690.2	16.8	261.6	-73.8	56.9	79.9	4.2

Balance Sheet (INR Million)

Y/E Mar	2013	2014	2015	2016	2017	2018E	2019E	2020E
Share Capital	869	2,965	2,965	2,965	3,718	3,718	3,718	3,718
Reserves	173,885	727,122	584,398	437,427	601,284	644,334	725,781	812,179
Net Worth	**174,754**	**730,087**	**587,363**	**440,392**	**605,001**	**648,052**	**729,498**	**815,896**
Debt	45,015	805,660	777,054	812,934	906,308	827,997	797,897	797,897
Deferred Tax	253	27,352	82,551	-52,679	-54,084	-50,804	-45,083	-39,233
Total Capital Employed	**220,022**	**1,901,073**	**1,914,733**	**1,566,258**	**1,596,505**	**1,599,521**	**1,712,797**	**1,859,422**
Gross Fixed Assets	50,990	1,163,255	1,566,988	1,506,034	1,641,342	1,726,452	1,835,659	1,943,524
Less: Acc Depreciation	9,626	291,200	563,103	728,375	774,935	834,190	899,055	969,957
Net Fixed Assets	**41,365**	**872,054**	**1,003,885**	**777,659**	**866,407**	**892,262**	**936,605**	**973,567**
Capital WIP	7,225	431,277	400,234	279,260	176,709	149,333	91,908	40,608
Investments	158,820	2,086	323	488	729	744	741	736
Current Assets	**21,481**	**835,766**	**749,569**	**809,719**	**871,531**	**819,025**	**964,021**	**1,130,407**
Inventory	9,610	90,338	86,905	80,117	96,279	115,240	140,088	147,312
Debtors	1,424	46,537	35,604	25,279	34,093	40,814	49,614	52,173
Cash & Bank	2,130	453,850	505,582	570,460	610,119	531,930	643,279	799,882
Loans & Adv, Others	8,318	245,041	121,478	133,864	131,040	131,040	131,040	131,040
Curr Liabs & Provns	**8,870**	**240,110**	**239,277**	**300,867**	**318,871**	**261,843**	**280,478**	**285,897**
Curr. Liabilities	5,471	41,346	53,533	62,124	71,288	86,430	105,066	110,484
Provisions	3,398	198,764	185,744	238,743	247,583	175,413	175,413	175,413
Net Current Assets	**12,612**	**595,656**	**510,292**	**508,852**	**552,660**	**557,182**	**683,543**	**844,510**
Total Assets	**220,022**	**1,901,073**	**1,914,733**	**1,566,258**	**1,596,505**	**1,599,521**	**1,712,797**	**1,859,422**

Financials and Valuations

Ratios

Y/E Mar	2013	2014	2015	2016	2017	2018E	2019E	2020E
Basic (INR)								
EPS	**-0.7**	**17.2**	**20.1**	**72.6**	**15.1**	**23.8**	**42.7**	**44.5**
Cash EPS	1.6	45.6	44.2	101.5	32.1	39.7	60.2	63.6
Book Value	201.1	246.2	198.1	148.5	162.7	174.3	196.2	219.5
DPS	3.5	3.3	3.5	5.9	19.5	7.3	13.4	13.9
Payout (incl. Div. Tax.)	-615.5	22.7	20.9	9.7	154.2	36.9	37.5	37.5
Valuation(x)								
P/E	0.0	0.0	0.0	0.0	22.4	14.3	7.9	7.6
Price / Book Value	0.0	0.0	0.0	0.0	2.1	1.9	1.7	1.5
EV/Sales	0.0	0.0	0.0	0.0	2.3	1.9	1.4	1.3
EV/EBITDA	0.0	0.0	0.0	0.0	9.4	8.2	5.1	4.6
Dividend Yield (%)	0.0	0.0	0.0	0.0	5.7	2.2	3.9	4.1
Profitability Ratios (%)								
RoE	-0.4	7.7	9.0	41.9	9.7	14.1	23.1	21.4
RoCE	1.6	18.4	9.4	6.3	12.4	14.1	21.1	19.9
RoIC (pre-tax)	1.4	20.7	10.5	5.5	15.2	18.4	29.2	29.2
Turnover Ratios (%)								
Asset Turnover (x)	0.7	1.6	0.8	0.7	0.9	1.0	1.2	1.2
Debtors (No. of Days)	20	23	17	14	17	17	17	17
Inventory (No. of Days)	137	45	42	46	49	48	48	48
Creditors (No. of Days)	78	21	26	35	36	36	36	36
Leverage Ratios (%)								
Net Debt/Equity (x)	0.2	0.5	0.5	0.6	0.5	0.5	0.2	0.0

Cash Flow Statement (INR Million)

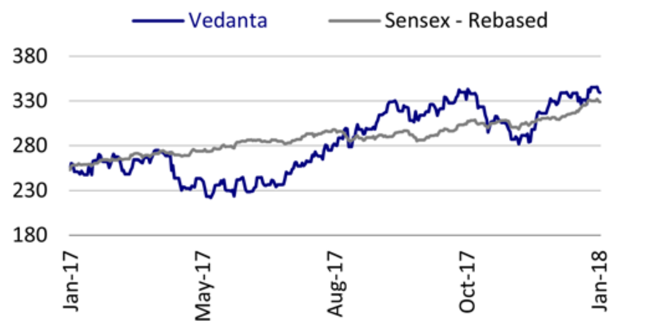
Y/E Mar	2013	2014	2015	2016	2017	2018E	2019E	2020E
Adjusted EBITDA	4,808	256,640	221,381	151,516	213,319	248,346	377,325	381,221
Non cash opr. exp (inc)	-1,426	-46,653	15,811	-254	1,559	0	0	0
(Inc)/Dec in Wkg. Cap.	-2,818	-10,239	-25,345	39,820	-7,404	-82,710	-15,012	-4,365
Tax Paid	429	-43,741	-33,796	-24,513	-20,438	-42,187	-73,604	-75,273
Other operating activities	0	0	0	0	0	0	0	0
CF from Op. Activity	**993**	**156,008**	**178,051**	**166,568**	**187,036**	**123,448**	**288,709**	**301,583**
(Inc)/Dec in FA & CWIP	-733	-72,836	-106,561	-54,975	-55,010	-57,735	-51,783	-56,565
Free cash flows	**260**	**83,172**	**71,490**	**111,593**	**132,026**	**65,714**	**236,927**	**245,018**
(Pur)/Sale of Invt	19,088	-4,105	71,972	19,262	26,986	0	0	0
Others	-26,443	14,967	4,371	10,548	-18,687	36,400	37,235	45,030
CF from Inv. Activity	**-8,088**	**-61,974**	**-30,218**	**-25,165**	**-46,712**	**-21,334**	**-14,547**	**-11,535**
Inc/(Dec) in Net Worth	0	0	0	0	-1,010	0	0	0
Inc / (Dec) in Debt	7,602	18,380	-45,596	12,278	91,499	-79,078	-30,100	0
Interest Paid	-4,394	-46,752	-62,898	-57,966	-61,501	-56,743	-55,280	-54,257
Divd Paid (incl Tax) & Others	0	-22,144	-31,063	-30,838	-129,653	-44,482	-77,433	-79,188
CF from Fin. Activity	**3,208**	**-50,516**	**-139,558**	**-76,526**	**-100,665**	**-180,303**	**-162,813**	**-133,445**
Inc/(Dec) in Cash	**-3,887**	**43,518**	**8,276**	**64,878**	**39,660**	**-78,189**	**111,349**	**156,603**
Add: Opening Balance	6,017	410,333	453,850	505,582	570,460	610,119	531,930	643,279
Closing Balance	**2,130**	**453,850**	**462,126**	**570,460**	**610,119**	**531,930**	**643,279**	**799,882**

Corporate profile

Company description

Vedanta is one of the largest natural resource company globally with exposure to all the major commodities. It has zinc and lead mine capacities of 1.5mtpa in HZL and Zinc International, Crude oil production capacity of 165 kboepd, Iron ore production capacity of 7.8mtpa, Aluminium capacity of 2.3mtpa and -9GW of power capacity and copper smelting capacity of 400ktpa. Most of its operations are in Frist quartile of global cost curve.

Exhibit 1: Sensex rebased



Source: MOSL/Bloomberg

Exhibit 2: Shareholding pattern (%)

	Dec-17	Sep-17	Dec-16
Promoter	50.1	50.2	62.9
DII	13.3	13.1	7.0
FII	18.1	18.2	16.8
Others	18.5	18.5	13.3

Note: FII Includes depository receipts Source: Capitaline

Exhibit 3: Top holders

Holder Name	% Holding
Life Insurance Corporation Of India - Ulif00220091	6.8
Cairn Uk Holdings Limited	5.0
Citibank N.A. New York Nyadr Department	3.7
Hdfc Trustee Co Ltd A/C Hdfc Nifty Exchange Tradedfund	1.4
Birla Sun Life Trustee Company Private Limited Ac Birla Sun Life Balanced 95 Fund	1.3

Source: Capitaline

Exhibit 4: Top management

Name	Designation
Navin Agarwal	Executive Chairman
Anil Agarwal	Chairman Emeritus
Thomas Albanese	Director & Chief Executive Off
Bhumika Sood	Company Secretary

Source: Capitaline

Exhibit 5: Directors

Name	Name
Lalita Gupte	Naresh Chandra
K Venkataramanan	Ravi Kant
GR Arun Kumar	Tarun Jain

*Independent

Exhibit 6: Auditors

Name	Type
Chandrasekaran Associates	Secretarial Audit
Ramnath Iyer & Co	Cost Auditor
S R Batliboi & Co LLP	Statutory
Shome & Banerjee	Cost Auditor

Source: Capitaline

Exhibit 7: MOSL forecast v/s consensus

EPS (INR)	MOSL forecast	Consensus forecast	Variation (%)
FY18	23.8	24.5	-2.9
FY19	42.7	44.5	-4.0
FY20	44.5	46.4	-4.1

Source: Bloomberg

Explanation of Investment Rating	
Investment Rating	Expected return (over 12-month)
BUY	>=15%
SELL	< - 10%
NEUTRAL	< - 10 % to 15%
UNDER REVIEW	Rating may undergo a change
NOT RATED	We have forward looking estimates for the stock but we refrain from assigning recommendation

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