18 April 2017

Update | Sector: Utilities

Coal India

BSE SENSEX	S&P CNX
29,319	9,105

CMP: INR279 TP: INR335(+20%) Upgrade to Buy

Volume growth to accelerate

E-auction price rising, NSR already reflects grade slippage; Upgrade to Buy

COAL's dispatch growth to accelerate despite substitution by RE

- Apparent coal demand growth has disappointed with a decline of 2.4% in FY17 due to destocking, efficiency gains, substitution (pet coke) and pick-up in renewable power generation. However, real consumption growth remains robust (e.g., 5% growth in the power sector).
- We are positively surprised with pick-up in RE projects, and are thus upgrading capacity target by 30GW to 110GW at the end of FY20E. On adjusting our power supply and coal supply models, we have reduced Indian apparent coal demand estimates by 52mt to 918mt for FY20. We note that apparent coal demand will still increase at a CAGR of 5.4% over FY17-20E, compared to flat demand over last two years.
- Despite reducing estimates by 16mt and 24mt, we note that Coal India's dispatches will increase by 6.8% to 580mt in FY18E and by 6.6% to 618mt in FY19E, driven by end of destocking and substitution of coal and pet coke imports, despite a rising share of RE in power generation.

Grade slippage issue largely behind; E-auction prices driving NSR

- COAL's net sales realization (NSR) on FSA volumes has disappointed due to stricter enforcement of GCV measurements. Thus, despite a price hike of 6.9% in May 2016 (revenue gain of INR33b), the NSR of FSA volumes was broadly flat in 2Q/3QFY17.
- COAL has re-evaluated grades of its coal mines, resulting in downward revision in grades of 177 of its 400 odd mines. Based on our analysis of data of individual subsidiaries, we estimate the impact is INR15-25b. This, in our view, is already reflected in the FSA NSR of the past few quarters.
- E-auction coal prices are inching up due to higher international coal prices. We are raising the e-auction prices by ~INR207/t to ~INR1,650/t, which is driving a 2.8% increase in average NSR in FY18E despite no further price hike.

Cost of mining will decline despite wage hike

- We believe COAL will be able to negotiate an 18% wage hike in view of low inflation, high existing wages and pressure from power consumers to keep coal prices low. COAL's wages have increased 405% in 12 years, the highest among the metal and mining companies. We expect employee cost to increase by less than 2% in FY18 after rising 14% in FY17 due to 3-4% natural net attrition.
- Cost of mining will decline as operating leverage will come into play on volume growth.

Stock Info

Bloomberg	COAL IN
Equity Shares (m)	6,207
52-Week Range (INR)	350 / 273
1, 6, 12 Rel. Per (%)	-3/-15/-12
M.Cap. (INR b)	1,731.9
M.Cap. (USD b)	26.8
Avg Val, INRm	1275
Free float (%)	21.1

Financials Snapshot (INR b)

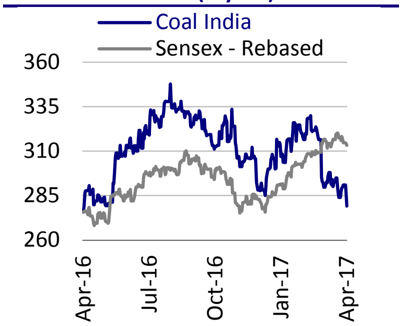
Y/E Mar	2016	2017E	2018E
Net Sales	760.9	835.4	888.8
EBITDA	139.0	191.1	212.2
PAT	103.5	124.6	136.9
EPS (INR)	16.7	20.1	22.1
Gr. (%)	-26.2	20.4	9.9
BV/Sh (INR)	41.0	41.1	41.2
RoE (%)	40.6	48.8	53.5
RoCE (%)	37.6	52.9	57.9
P/E (x)	16.7	13.9	12.7
P/BV (x)	6.8	6.8	6.8

Shareholding pattern (%)

As On	Dec-16	Sep-16	Dec-15
Promoter	79.8	79.7	79.7
DII	10.8	10.3	8.6
FII	6.9	7.8	8.8
Others	2.5	2.3	2.9

FII Includes depository receipts

Stock Performance (1-year)



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Strong earnings growth, attractive dividend yield; Upgrading to Buy

- Despite reducing volume estimates by 24mt, we expect 6.7% CAGR in volumes, 21% CAGR in adj. EBITDA and 15% CAGR in EPS over two years on operating leverage and upgrade in e-auction prices while keeping FSA prices unchanged.
- COAL deserves a premium over other metal and mining stocks due to its dominant position in the Indian markets and its current coal pricing being very competitive, which has virtually no downside risk. Therefore, we value the stock at 7.5xEV/adj. EBITDA.
- We are moving the valuation basis to FY19E and raising the target price to INR335. At CMP, the stock has upside of 20%, which is in addition to ~6% dividend yield and is very attractive compared to its cost of equity. Therefore, we upgrade the stock to **Buy**.

Exhibit 1: Metals sector valuation

	Rating	Price	MCAP	EPS			P/E (x)		EV/EBITDA (x)		P/B(x)	
		(INR)	(USD M)	FY17E	FY18E	FY19E	FY18E	FY19E	FY18E	FY19E	FY18E	FY19E
Steel												
Tata Steel	Sell	450	6,803	18.9	39.4	45.7	11.4	9.9	7.3	6.6	2.9	2.4
JSW Steel	Buy	187	7,040	13.6	18.3	20.5	10.2	9.1	6.5	5.6	1.8	1.5
JSPL	Buy	119	1,690	-22.3	-17.5	-2.2	-6.8	-53.8	9.6	6.7	0.3	0.3
SAIL	Sell	60	3,874	-7.4	-12.6	0.4	-4.8	161.6	58.1	10.3	0.8	0.8
Non-Ferrous												
Hindalco	Buy	184	5,902	16.9	22.6	25.4	8.1	7.2	6.0	5.3	1.3	1.1
Nalco	Buy	73	2,944	3.9	5.3	5.8	13.8	12.6	5.7	5.0	1.3	1.2
Vedanta	Neutral	231	10,630	17.6	28.1	31.3	8.2	7.4	5.3	5.3	1.2	1.1
Mining												
Coal India	**Buy**	**279**	**27,419**	**16.7**	**20.1**	**22.1**	**13.9**	**12.7**	**6.6**	**6.0**	**6.8**	**6.8**
Hindustan Zinc	Neutral	273	17,957	19.5	25.6	27.9	10.7	9.8	6.7	5.8	3.0	2.5
NMDC	Buy	127	7,816	11.9	12.1	12.8	10.5	9.9	6.6	6.2	1.6	1.5

Source: MOSL, Company Data

Despite RE gaining share; COAL's volumes to grow 6.8%

Apparent coal demand growth to pick up on end of destocking

- **Apparent coal demand growth has disappointed with a decline of 2.4% in FY17 on destocking, efficiency gains, substitution (pet coke) and pickup in renewable power generation. However, the real consumption growth still remains robust e.g. 5% growth in power sector.**
- **We are positively surprised with pick up in RE projects and thus are upgrading capacity target by 30GW to 110GW at the end of FY20E. On adjusting our power supply model (Exhibit 2) and coal supply model (Exhibit 4), we have reduced Indian apparent coal demand estimates by 52mt to 918mt in FY20E. We note that apparent coal demand will still increase at CAGR of 5.4% over FY17-20E as compared to flat demand in last two years.**
- **Despite reducing estimates by 16 and 24mt, we note that Coal India's dispatches will increase by 6.8 % to 580mt in FY18E and by 6.6% to 618mt in FY19E driven by end of destocking and substitution of coal and pet coke imports despite rising share of RE in power generation.**

Raising RE capacity addition estimates in our power supply model

We are raising the RE capacity target by 30GW to 110GW at the end of FY20E

Renewable energy (RE) capacity addition momentum has picked up very well during FY17 due to short execution cycle, improving economics and govt. support in setting up solar parks. RE capacity addition at 13.5GW was ahead of our est. of 7.6GW, which surpassed conventional (Conv) capacity net addition at 9GW (est. of 15.7GW) for the first time in the history of India. Falling Solar PV panel capex is pushing down tariffs to new lows of ~INR3/kwh, which will further accelerate solar capacity addition, in our view. We are raising the RE capacity target by 30GW to 110GW at the end of FY20E.

Exhibit 2: Fuel wise contribution in Indian power generation (%)

	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18E	FY19E	FY20E
Conventional	**96.6**	**96.1**	**95.4**	**95.3**	**94.4**	**94.4**	**93.3**	**92.0**	**90.5**	**89.0**
Total Thermal	82.6	81.3	83.8	82.4	84.2	85.6	86.1	85.6	85.5	85.3
- Coal	70.1	70.6	76.5	77.8	80.2	81.3	81.9	81.6	81.7	81.7
- Gas	12.4	10.7	7.4	4.6	3.9	4.3	4.3	4.0	3.8	3.6
Hydro	14.2	15.0	12.5	14.0	12.4	11.0	10.6	10.7	10.7	10.8
Nuclear	3.3	3.7	3.6	3.6	3.5	3.4	3.3	3.7	3.8	3.9
Renewable	**3.4**	**3.9**	**4.6**	**4.7**	**5.6**	**5.6**	**6.7**	**8.0**	**9.5**	**11.0**

Source: MOSL

Acceleration in RE generation is crowding out coal demand

We are adjusting our power supply model to account for 310bps higher contribution of RE at 11% in FY20E, which will crowd out 16mt of coal demand

RE generation too has started growing driven by (1) acceleration in capacity addition and (2) improvement in grid availability. RE generation has increased by 25% to 82.3b kWh in FY17. The share of renewable in total generation has increased by 70bps to 6.7%. Although the total energy demand (excluding CPP) has increased by 5.8% to 1,236 b kwh, yet the Conv generation increased by only 4.7% to 1,154b kwh due to displacement from RE. Coal continues to remain the main driver of Conv power generation with 86% share. Coal based generation (incl. lignite) increased by 5.4% to 945b kwh. However, this is lower than our estimate of 963b kwh. This trend will continue. We are adjusting our power supply model to account for 310bps higher contribution of RE at 11% in FY20E, which will crowd out Conv. generation.

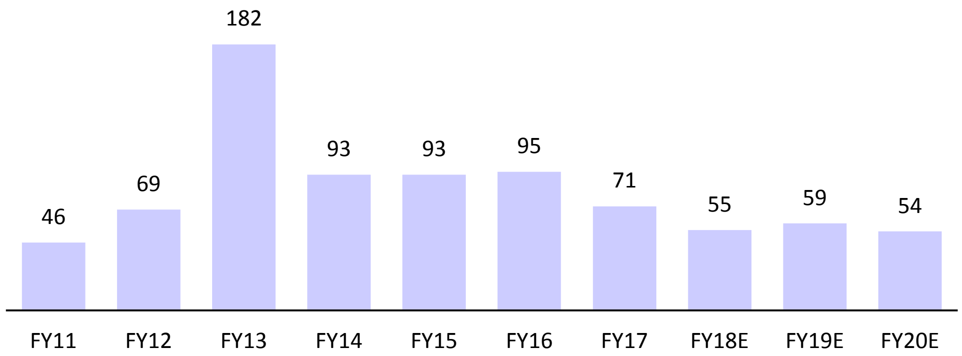
Though we are keeping the overall generation growth unchanged at 7% CAGR, the Conv generation growth is toned down to 5.3% CAGR (v/s 6.2%) over FY17-20E. Coal based generation too is expected to grow slower at 5.3% CAGR (v/s 6.4%) over same period. This is impacting coal demand. We now expect coal consumption in power generation to increase at slower pace of 4.2% CAGR to 647mt over FY17-20E because new plants are more efficient and have lower station heat rates (Exhibit 2). There is a reduction of 16mt coal demand by power sector from our earlier estimates.

Exhibit 3: Coal consumption in power generation

	FY11	FY12	FY13	FY14	FY15	FY16	FY17E	FY18E	FY19E	FY20E
Power generation (b kwh)	850	904	953	1,011	1,107	1,169	1,236	1,323	1,415	1,514
YoY (%)	7.8	6.3	5.4	6.1	9.5	5.6	5.8	7.0	7.0	7.0
Conv. power generation (b kwh)	811	877	912	967	1,049	1,102	1,159	1,222	1,288	1,354
YoY (%)	5.9	8.1	4.0	6.0	8.4	5.1	5.2	5.4	5.4	5.1
Coal based gen. (b kwh)	535	585	659	714	800	862	910	956	1,011	1,064
YoY (%)	4.0	9.2	12.7	8.3	12.1	7.7	5.6	5.0	5.8	5.2
kg/kwh	0.723	0.714	0.690	0.686	0.664	0.633	0.629	0.621	0.614	0.608
imports in supply (%)	7.8	10.8	13.8	16.2	17.2	14.8	11.6	11.0	10.5	10.0
Consumption (mt)	**387**	**418**	**455**	**489**	**531**	**546**	**573**	**593**	**621**	**647**
YoY (%)	5.4	7.9	8.9	7.7	8.6	2.7	5.0	3.6	4.7	4.2

Source: MOSL

Exhibit 4: Role of coal in incremental power generation (%)



Source: MOSL, CEA

Efficiencies, destocking and substitution impacted apparent coal demand

Apparent demand increased by 2.3% in FY16, while it declined by 2.4% in FY17.

India's apparent coal demand has slowed down considerably and remained flat over FY15-17 in comparison to 8.2% CAGR over FY11-FY15 on account of

- Significant slowdown in coal based power generation (CPG), 6.6% over FY15-17 v/s 10.6% over FY11-15, despite moderate slowdown in total generation (5.1% over FY15-17 v/s 6.6% over FY11-15). Gas based power generation (GPG) declined by ~60% to 41b kwh over FY11-FY15 thereby boosting the demand for CPG. On the other hand, GPG increased by ~20% over FY15-17 aided by subsidies thereby easing the pressure on CPG.
- Specific consumption of coal has improved faster at CAGR of 2.7% over FY15-17 v/s 2.1% over FY11-15
- Moderate 5mt increase in inventories over FY15-17 v/s 23mt increase in inventories at power stations over FY11-15. Power stations initially increased inventories from 23mt at the end of FY15 to 39mt at the end of FY16 but destocked to 28mt at the end of FY17 as they grew confident of domestic availability.

- De-stocking at captive mines. There was increase in inventories at captive mines during FY15 to exploit production limits before de-allocation pursuant to Supreme Court order dated Sep 2014. These coal inventories had shifted to consumer end by the end of FY15 and were gradually destocked in FY16 and FY17.
- De-stocking in supply chain. There was increase in-transit inventory in supply chain (ports, railways etc) due to rising dependence on imports over FY11-15. Improved domestic availability has led to substitution of imports and destocking in supply chain. Swapping of linkage too reduced destocking of supply chain.
- Substitution of ~10mt coal demand from pet coke. Pet coke imports increased at CAGR of 52% over FY15-17. Cement industry moved quickly to pet coke uses as it was (1) more economical and (2) supply chain is more consistent and reliable.

Real consumption, however, continues to grow

Consumption in power sector grew at CAGR of 3.8%

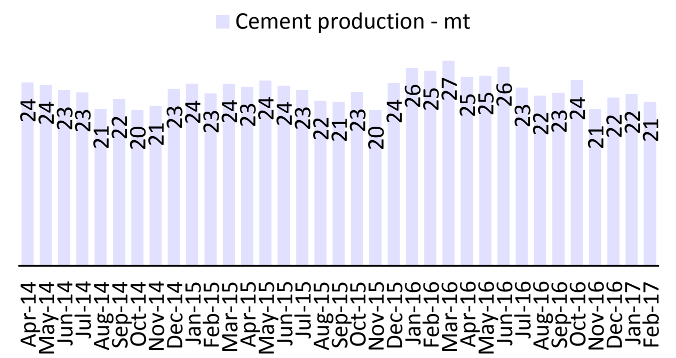
Although apparent demand was flat, the real consumption continues to grow at 3.8% CAGR in power sector over FY15-17. It is difficult to judge real consumption in non-power sector due to absence of inventory data at consumer end. However, we don't see reasons for a slowdown. Production of cement, sponge iron, aluminum etc has all increased (Exhibit 5 and Exhibit 6). The decline of apparent demand can largely be attributed to destocking.

Exhibit 5: Indian coal supply model

	FY11	FY12	FY13	FY14	FY15	FY16	FY17E	FY18E	FY19E	FY20E
Production+imports	**582**	**611**	**667**	**702**	**795**	**803**	**794**	**827**	**873**	**918**
Coal India	431	436	453	461	494	534	554	580	618	657
SCCL	51	52	53	50	53	60	61	67	72	77
Captive mines	50	52	50	54	62	43	47	53	59	66
Imports	49	71	110	136	186	166	132	127	124	118
Dispatches	**573**	**607**	**677**	**710**	**784**	**802**	**783**	**827**	**873**	**918**
Power	380	416	461	495	542	562	562	594	623	648
Non-power	193	191	216	216	242	241	220	232	250	269
Coal India	423	433	464	472	489	531	543	580	618	657
Power	304	312	346	354	385	409	402	426	445	460
Non-power	119	120	118	118	104	122	141	153	174	197
SCCL	50	51	53	48	53	59	61	67	72	77
Power	33	37	38	34	39	47	52	57	62	67
Non-power	17	15	15	14	13	11	9	10	10	9
Captive mines	50	52	50	54	63	44	47	53	59	66
Power	13	22	15	27	27	24	42	46	51	56
Non-power	37	30	35	27	36	20	5	7	8	10
Imports	49	71	110	136	179	168	132	127	124	118
Power	30	45	63	79	91	81	66	65	65	65
Non-power	19	26	48	57	88	87	65	62	59	53
Inventories at user end	**2**	**0**	**7**	**12**	**23**	**39**	**28**	**29**	**32**	**34**
Power	2	0	7	12	23	39	28	29	30	31
Non-power								1	1	2
Inventory increase/(decrease)	-7	-2	7	5	11	16	-11	2	2	2
Power	-7	-2	7	5	11	16	-11	1	1	1
Non-power								1	1	1
Consumption	**580**	**609**	**671**	**705**	**773**	**786**	**793**	**825**	**871**	**915**
Power (real)	387	418	455	489	531	546	573	593	621	647
Non-power (apparent)	193	191	216	216	242	241	220	232	249	268

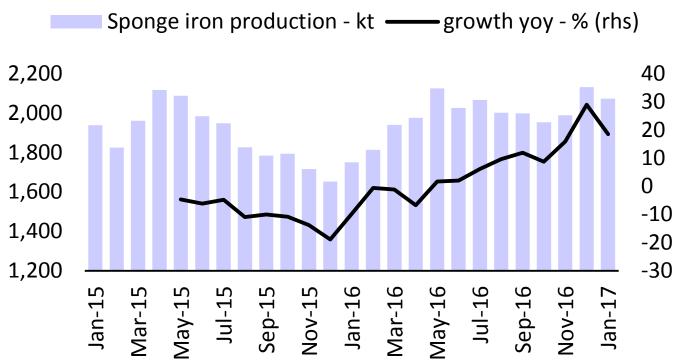
Source: MOSL

Exhibit 6: Cement production



Source: MOSL, Company

Exhibit 7: Sponge iron production



Source: MOSL, Company

Apparent coal demand to pick up despite rising share of RE

Apparent demand to increase at CAGR of 5.4% to 918mt in FY20E

Despite rising share of RE, we expect CPG to increase at CAGR at 5.3% over FY17-20. Accounting for efficiency gains at CAGR of 1.1%, we expect coal demand in power generation to increase at CAGR of 4.2% to 647mt in FY20E. We believe destocking is largely behind. Coal consumption from non-power segment is expected to increase at CAGR of 6.7% over FY17-20E aided by substitution of pet coke on rising prices of latter (Exhibit 8).

We expect Indian coal consumption to increase at CAGR of 4.9% and apparent demand to increase at CAGR of 5.4% to 918mt in FY20E. This is a reduction of 52mt as compared to our earlier estimates. We expect import substitution to continue albeit at slower pace.

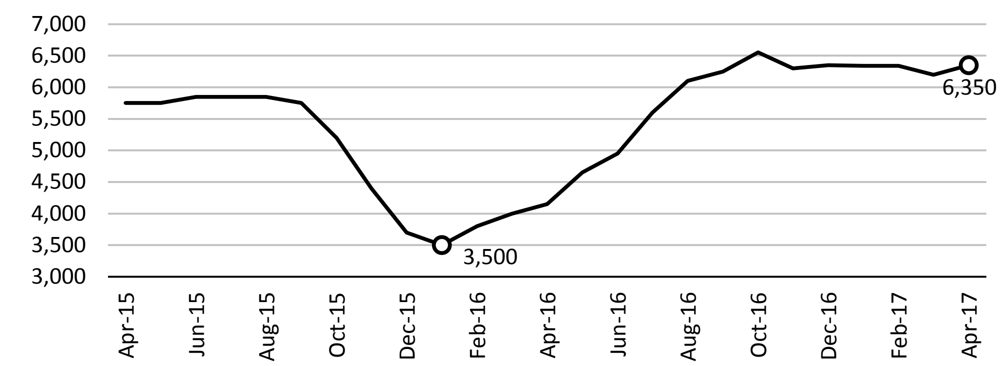
Exhibit 8: Apparent coal demand (mt)

	FY11	FY12	FY13	FY14	FY15	FY16	FY17E	FY18E	FY19E	FY20E
Power	380	416	461	495	542	562	562	595	623	649
YoY (%)		9.4	10.9	7.2	9.7	3.5	0.1	5.8	4.8	4.2
Non-Power	193	191	216	216	242	241	220	232	249	268
YoY (%)		-0.8	13.2	-0.3	12.2	-0.5	-8.4	5.2	7.6	7.5
All India	573	607	677	710	784	802	783	827	873	918
YoY (%)		6.0	11.6	4.8	10.5	2.3	-2.4	5.6	5.6	5.1

Source: MOSL

Rising pet coke prices will aid substitution to domestic coal.

Exhibit 9: Pet coke prices – INR/t



Source: MOSL, SteelMint

Coal India's dispatches will pick up at faster pace despite cut in estimates

Dispatches of Coal India are expected to increase at CAGR of 6.6% to 657mt over FY17-20E, which is faster than the 5.3% CAGR over FY15-17. The FY20E volume estimate is cut ~32mt on lower coal-based power generation growth due to increase in generation from RE. We expect dispatches to increase at 6.7% to 580mt in FY18E.

Exhibit 10: Summary of volumes

Sales (m tons)							Changes in estimates		
	FY15	FY16	FY17E	FY18E	FY19E	FY20E	FY18E	FY19E	FY20E
Total	**489.4**	**534.5**	**543.0**	**580.0**	**618.0**	**657.0**	**-16.5**	**-24.1**	**-31.9**
YoY (%)	3.8	9.2	1.6	6.8	6.6	6.3			
FSA (incl. MoU)	426.0	448.3	427.0	460.1	489.4	520.2	0.0	0.0	0.0
- Power (est)	385.4	408.8	380.0	405.1	429.4	455.2	0.0	0.0	0.0
- Non Power (est.)	40.6	39.6	47.0	55.0	60.0	65.0	0.0	0.0	0.0
E-auction coal	46.9	67.0	97.5	101.4	110.1	118.3	-16.5	-24.1	-31.9
Washed Coal	12.0	14.3	13.4	13.4	13.4	13.4	0.0	0.0	0.0
- Coking	2.1	2.1	2.1	2.1	2.1	2.1	0.0	0.0	0.0
- Non coking	9.8	12.2	11.4	11.4	11.4	11.4	0.0	0.0	0.0
Others	4.5	5.1	5.1	5.1	5.1	5.1	0.0	0.0	0.0

Source: MOSL

E-auction volumes and prices to lift NSR

Impact of grade correction is already reflected

- **Price hike (May 2016) has got diluted as COAL addressed quality issues by correction of grades for its 177 mines. According to our calculations, INR15-25b could be the impact on revenue, which is already factored in NSR.**
- **Rising share of market liked coal in sales mix and E-auction prices will lift average NSR by 2.8% in FY18E. We have raised E-auction NSR by INR207/t to INR1650/t.**

Price hikes got diluted by grade correction of mines

We believe that the total impact of grade correction for COAL should range INR15-25b, which is lower than the benefit of price hike announced

There are number of factors that are driving average realization of coal in opposite direction for the company. COAL had taken a price hike on 31st May 2016, which was expected to boost annual revenue by INR33b or average NSR by 6%. However, this price hike had barely an impact on average NSR of FSA revenues in the two subsequent quarters. It is understood that COAL is correcting grades of its 177 mines to address quality issues, which is offsetting the benefit of price hikes. In a recent disclosure by the subsidiaries, new lists of grades of each mine have been published. According to our ballpark calculations, there is an impact on revenue of INR4b for MCL and INR 10-11b for SECL. The impact on the revenue of NCL and ECL is negligible because grade correction is fewer. BCCL has recently announced price hike for coking coal. We are unable to calculate the impact for the mines of WCL and CCL due to lack of data. Therefore, we believe that the total impact for COAL should range INR15-25b, which is lower than the benefit of price hike announced in May 2016. The average NSR of FSA revenue in 2Q and 3Q was lower YoY, which implies dilution on account of grade correction. Therefore, we believe that the recent announcement of new list of grades is already reflected in the revenue and perhaps there is no additional impact on NSR.

Share of market linked volumes is increasing

Share of market linked volumes is continuously increasing as COAL is trying to sell coal through various methods in E-auction. The share of E-auction coal was earlier restricted to only 10% of volumes. After the limit was removed, the share of E-auction volumes has increased to 18%.

Share of E-auction volumes has increased to 18%.

Exhibit 11: Coal Sales (m tons)

	FY15	FY16	FY17E	FY18E	FY19E	FY20E
Linkages	426	448	427	460	489	520
Proportion (%)	87.0	83.9	78.6	79.3	79.2	79.2
E-Auction	47	67	97	101	110	118
Proportion (%)	9.6	12.5	18.0	17.5	17.8	18.0
Beneficiated coal	12	14	13	13	13	13
Proportion (%)	2.4	2.7	2.5	2.3	2.2	2.0
Others	5	5	5	5	5	5
Proportion (%)	0.9	0.9	0.9	0.9	0.8	0.8
Total	**489**	**534**	**543**	**580**	**618**	**657**
YoY (%)	3.8	9.2	1.6	6.8	6.6	6.3

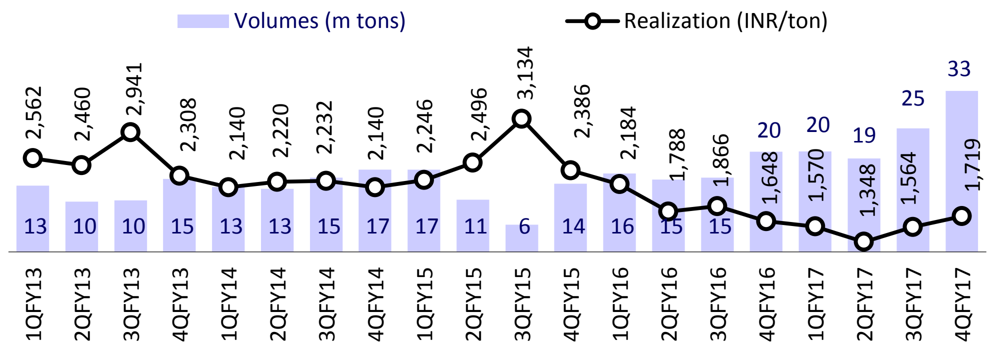
Source: MOSL, Company

Market linked coal prices are already inching up…

We are raising average NSR for E-auction by INR207/t to INR1650/t.

E-auction prices were continuously falling during FY16 and 1H FY17, which pulled down average realization for COAL by 3.8% in FY16 and by 1% in FY17E. However, the E-auction prices have started inching up in 2HFY17E, which will drive up NSR in FY18E. We are raising average NSR for E-auction by INR207/t to INR1650/t.

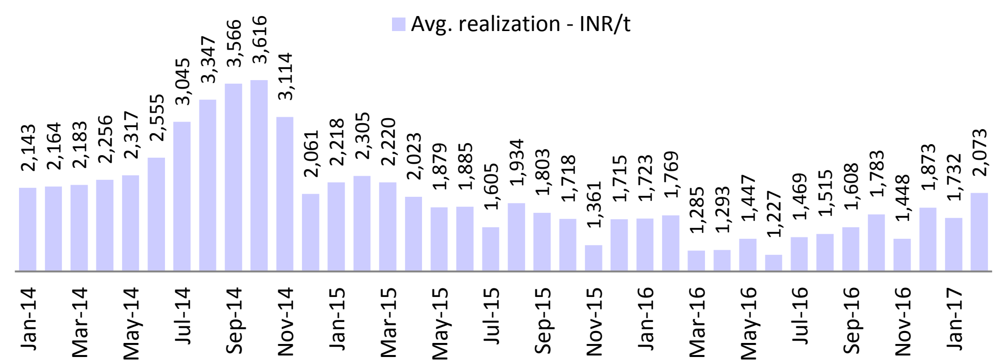
Exhibit 12: Both volume and prices have started increasing in E-auction



Source: MOSL, CEA

E-auction prices are inching up.

Exhibit 13: E-auction realization – INR/t (based on data from exhanges)



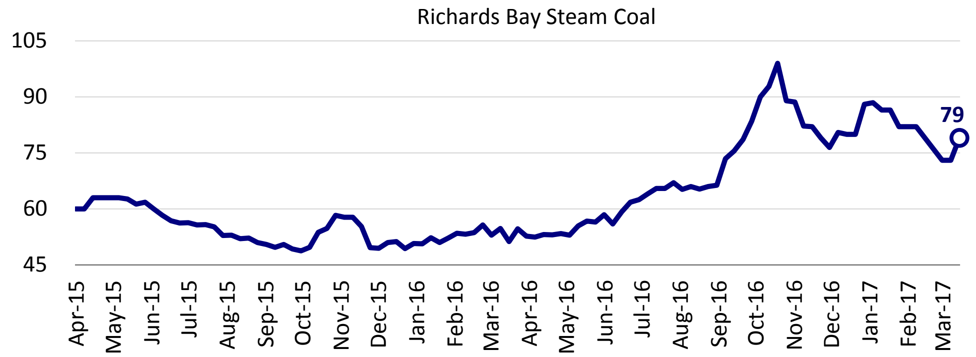
Source: MOSL, MJunction

…driven by international coal prices

We expect import substitution at faster pace

International coal market has moved from being surplus to more balanced equation after Chinese govt. started managing production to support coal prices. Chinese coal mines account for nearly half of the global coal production. Apparently, Chinese govt. wants prices neither too high nor too low and working range is USD60-90/t for the 6,000kcal/kg coal. This is getting reflected in the price movements. This augurs well for COAL because this will drive import substitution. We hear that Indian power plants on the west coast are now evaluating switching to domestic coal if they can source it from Talcher coal fields of MCL due to proximity to the ports.

Exhibit 14: International coal prices (USD/t) now materially higher



Source: MOSL, CEA

Exhibit 15: Net Sales realization (NSR) in INR/t

	FY15	FY16	FY17E	FY18E	FY19E	FY20E
Raw Coal (FSA)	1,327	1,309	1,304	1,333	1,333	1,333
E-auction coal	2,450	1,839	1,575	1,650	1,650	1,650
Beneficiated Coal	2,348	2,328	2,535	2,630	2,630	2,630
Others	2,593	2,463	2,685	2,630	2,630	2,630
Average	**1,472**	**1,415**	**1,401**	**1,440**	**1,438**	**1,436**
% YoY	0.8	(3.8)	(1.0)	2.8	(0.1)	(0.2)

Source: MOSL, Company

Cost of mining will decline despite wage hike

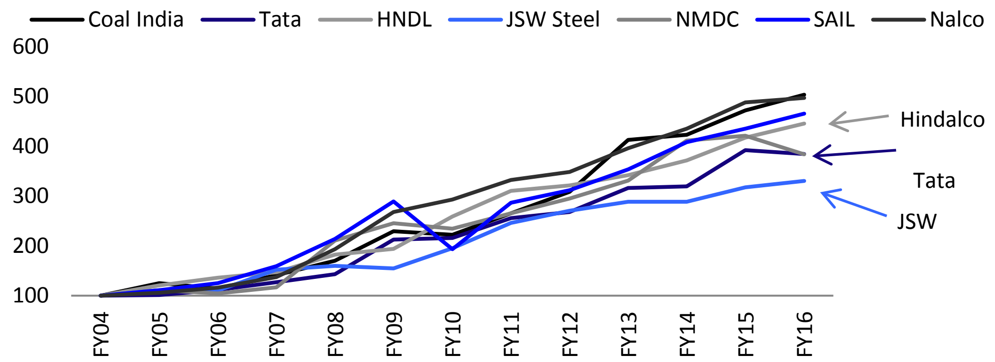
Operating leverage will be at play

- **We believe COAL will be able to negotiate 18% wage hike in view low inflation, high existing wages, pressure from power consumers to keep coal prices low, and less peer pressure because many of other CPSU's e.g. SAIL are not able to afford wage hike because they are losing money.**
- **Cost of mining will decline as operating leverage will come into play on volume growth.**

We are factoring 18% wage hike

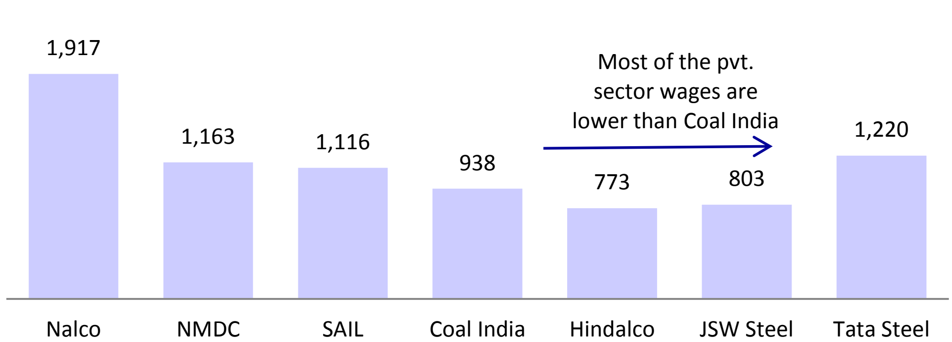
Employee cost has very high share in the revenue due to legacy issue. It was 39.2% of revenue in FY16, which increased to 44.1% in FY17E assuming average hike of 18%. The wage revision is due w.e.f. 1st July 2016 for 90% of the work force and w.e.f. 1st Jan 2017 for the remaining 10% manpower which are executives. We understand that management has offered 15% hike, while staff is asking for 30% hike. We expect 18% wage hike is reasonable considering average employee cost has increased 405% in 12 years, which is highest among Indian metal and mining companies (Exhibit 15). Further, its average employee cost is now higher than private players like Hindalco and JSW Steel despite lower skills required in mining than in metal production (Exhibit 16).

Exhibit 16: Average employee cost Indexed to 100 in FY04



Source: MOSL

Exhibit 17: Average annual employee cost (INR 000/year)

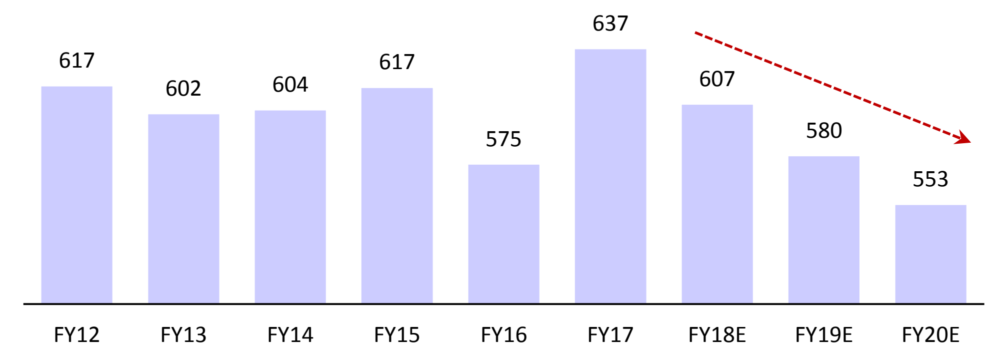


Source: MOSL, Company

Specific labor cost will decline on operating leverage

Despite wage revision, we expect employee cost to increase less than 2% in FY18E after an increase of 14% in FY17 due to 3-4% natural net attrition. Employee cost as percentage of revenue will start declining benefiting from operating leverage.

Exhibit 18: Specific labor cost (incl. social overheads) INR/t



Source: MOSL, Company

Exhibit 19: Cash cost of production (INR/t) is on declining trend

	FY14	FY15	FY16	FY17E	FY18E	FY19E	FY20E
CoP per ton	1,051	1,082	1,064	1,145	1,111	1,095	1,091
YoY (%)	3.7	3.0	-1.6	7.6	-3.0	-1.4	-0.4
Labor & social OH	604	617	575	637	607	580	553
Contract	145	174	208	206	214	228	252
R&M	170	171	156	159	156	153	150
Others	132	120	125	143	133	134	136

Source: MOSL, Company

EBITDA CAGR of 21%; E-auction prices offset volume cuts

20% upside and 6% dividend yield is attractive; Upgrade to BUY

- **Despite reducing volume estimates by 24mt, we expect 6.7% CAGR in volumes, 21% CAGR in adj. EBITDA, 15% CAGR in EPS over two years on operating leverage and upgrade in E-auction prices while keeping the FSA prices unchanged.**
- **We are raising the target price to INR335/share as we roll over the valuation basis to FY19E (7.5xEV/EBITDA). 20% upside and 6% dividend yield is attractive. Upgrade to BUY.**

Adj. EBITDA CAGR of 21% over two years

After a steep decline of 23%, we expect adjusted EBITDA to increase by 33% to INR215b (INR3b upgrade w.r.t. old est.) in FY18E driven by 6.8% volume growth to 580mt (volumes reduced by 16mt w.r.t old est.), 2.7% growth in NSR aided by E-auction prices and rising share of market linked volumes, and operating leverage. Adjusted EBITDA is expected to increase further by 11% to INR237b (INR1.9b reduction w.r.t. old est.) in FY19E driven by 6.6% volume growth to 618mt (volumes reduced by 24mt w.r.t old est.) and operating leverage. This 21% CAGR in adj. EBITDA is despite keeping FSA prices unchanged.

EPS CAGR of 15% and attractive dividend yield of 6%

The EPS is expected to increase at CAGR of 15% to INR22.1 in FY19E. This will allow COAL to dole out handsome dividends as it can maintain 100% or above payout ratio despite INR80b annual capex. At CMP, the dividend yield is very attractive at 6%.

Upgrading to BUY

COAL deserves premium over other metal and mining stocks due to its dominant position in Indian markets and its current coal pricing being very competitive, which has virtually no downside risk. Therefore, we value the stock at 7.5xEV/adj.EBITDA. We are moving the valuation basis to FY19E and raising the target price to INR335. At CMP, the stock has upside of 20%, which is in addition to ~6% dividend yield and very attractive as compared to its cost of equity. Therefore, we upgrade the stock to Buy.

Exhibit 20: Target Price calculations

	FY16	FY17E	FY18E	FY19E	FY20E
Adjusted EBIDTA	209,433	161,241	214,830	237,493	253,456
Target EV/EBITDA (x)	7.5	7.5	7.5	7.5	7.5
Target EV	1,570,746	1,209,310	1,611,227	1,781,194	1,900,920
Net debt	-449,609	-342,196	-317,660	-301,241	-290,538
Target Equity value	2,020,356	1,551,506	1,928,887	2,082,435	2,191,458
TP (INR/share)	325	250	311	335	353

Source: MOSL

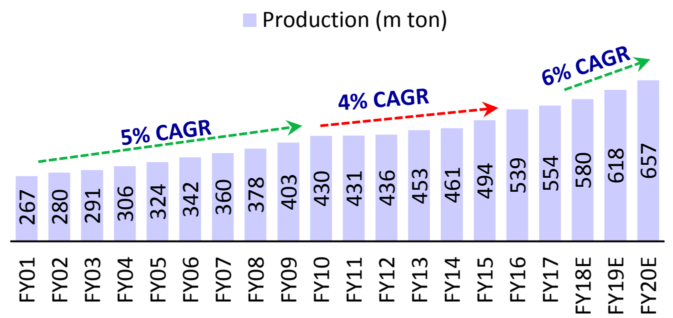
Exhibit 21: Adjusted P&L

	FY14	FY15	FY16	FY17E	FY18E	FY19E	FY20E
Revenue	**705,076**	**740,416**	**778,357**	**783,124**	**859,193**	**914,153**	**970,249**
Power FSA	460,707	511,009	535,676	494,973	539,909	571,763	605,529
Non Power FSA	74,048	72,085	69,455	79,477	92,455	100,860	109,265
Eauction/MoU	170,322	157,321	173,226	208,673	226,829	241,530	255,455
Sales (mt)	472	489	534	543	580	618	657
YoY (%)	1.6	3.8	9.2	1.6	6.8	6.6	6.3
Power FSA	354	385	409	380	405	429	455
Share (%)	75	79	76	70	70	69	69
Non Power FSA	42	41	40	47	55	60	65
Eauction/MoU	75	63	86	116	120	129	137
Revenue per ton	1,496	1,517	1,442	1,442	1,481	1,479	1,477
YoY (%)	-0.5	1.4	-4.9	0	2.7	-0.1	-0.2
Power FSA	1,302	1,326	1,311	1,303	1,333	1,331	1,330
Non Power FSA	1,745	1,775	1,755	1,691	1,681	1,681	1,681
Eauction/MoU	2,261	2,482	2,010	1,800	1,892	1,878	1,867
Cost of Mining (ex. OB)	**495,603**	**529,580**	**568,924**	**621,882**	**644,363**	**676,660**	**716,793**
CoP per ton	1,051	1,082	1,064	1,145	1,111	1,095	1,091
YoY (%)	3.7	3	-1.6	7.6	-3	-1.4	-0.4
Labor & social OH	604	617	575	637	607	580	553
Contract	145	174	208	206	214	228	252
R&M	170	171	156	159	156	153	150
Others	132	120	125	143	133	134	136
Adjusted EBIDTA*	**209,473**	**210,836**	**209,433**	**161,241**	**214,830**	**237,493**	**253,456**
Power FSA	88,852	93,951	100,597	59,730	89,840	101,583	108,918
Share (%)	42	45	48	37	42	43	43
Non Power FSA	29,456	28,150	27,327	25,644	31,352	35,165	38,349
Share (%)	14	13	13	16	15	15	15
Eauction/MoU	91,165	88,735	81,509	75,867	93,639	100,745	106,188
Share (%)	44	42	39	47	44	42	42
EBITDA per ton	444	431	392	297	370	384	386
YoY (%)	-9	-3	-9	-24	25	4	0
Power FSA	251	244	246	157	222	237	239
Non Power FSA	694	693	690	546	570	586	590
Eauction	1,210	1,400	946	654	781	784	776

*Adj. EBITDA = Incl. transportation income (part of other income) and excluding OB removal provision Source: MOSL

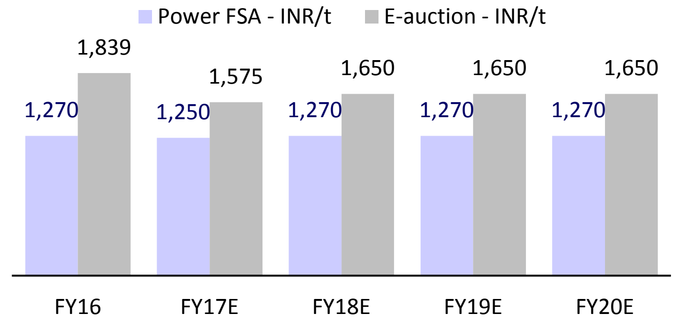
Story in charts

Exhibit 22: Production to grow by ~6% CAGR over FY17-20E



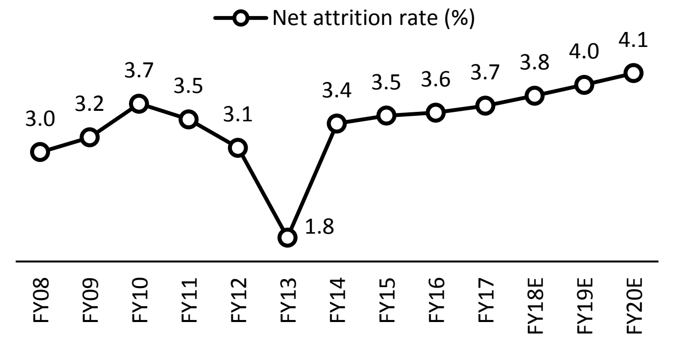
Source: MOSL, Company

Exhibit 23: No increase in FSA realn.



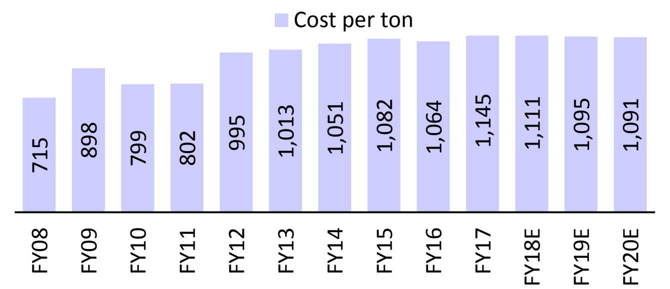
Source: MOSL, Company

Exhibit 24: Attrition will drive saving in employee cost



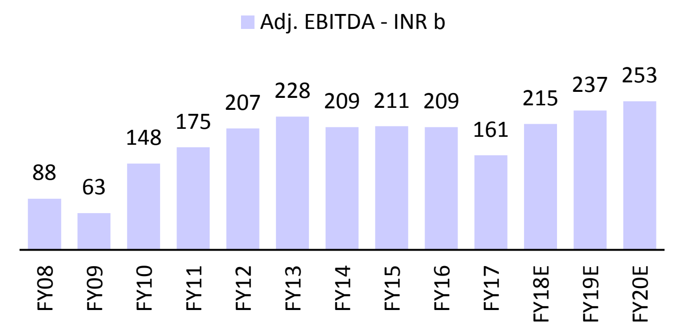
Source: MOSL, Company

Exhibit 25: CoP will decline on operating leverage



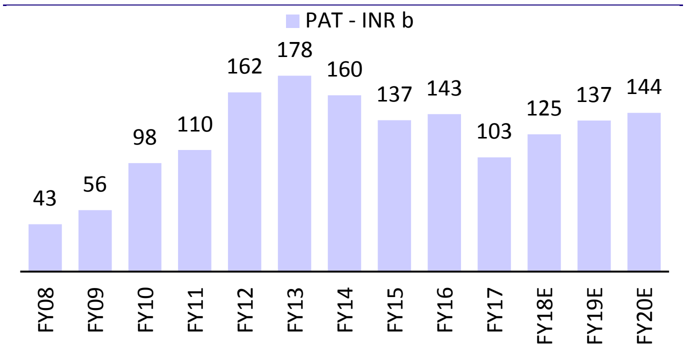
Source: MOSL, Company

Exhibit 26: Adj. EBITDA to increase by ~21% CAGR FY17-19E



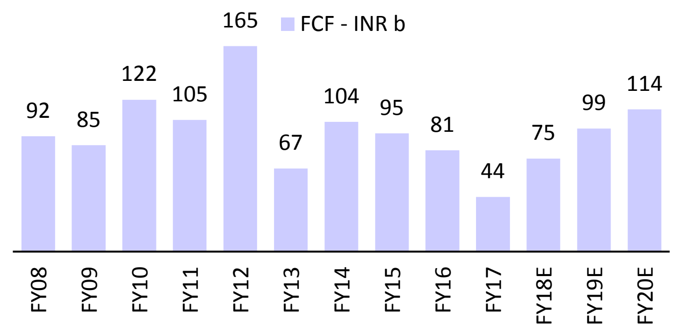
Source: MOSL, Company

Exhibit 27: PAT to increase by ~15% CAGR FY17-19E



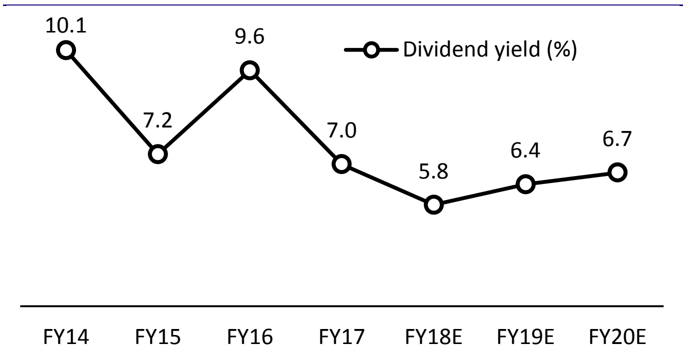
Source: MOSL, Company

Exhibit 28: Strong FCF generation



Source: MOSL, Company

Exhibit 29: Attractive dividend yield



Source: MOSL, Company

Financials and Valuations

Income Statement						(INR Million)
Y/E March	**FY14**	**FY15**	**FY16**	**FY17E**	**FY18E**	**FY19E**
Net Sales	**688,100**	**720,146**	**756,443**	**760,863**	**835,413**	**888,815**
Change (%)	0.7	4.7	5.0	0.6	9.8	6.4
Operating Expenses	528,469	567,847	597,038	649,229	683,919	718,521
EBITDA	**159,632**	**152,300**	**159,404**	**111,634**	**151,494**	**170,294**
% of Net Sales	23.2	21.1	21.1	14.7	18.1	19.2
adj. EBITDA/ton	444	431	392	297	370	384
Depreciation	19,964	23,198	24,664	27,580	29,380	31,180
Interest	580	73	207	3,540	3,575	3,611
Other Income	89,694	86,761	80,943	73,901	64,614	62,840
Extra Ordinary	-14	-50	-414	0	0	0
PBT	**228,795**	**215,839**	**215,891**	**154,414**	**183,152**	**198,342**
Tax	77,679	78,573	73,148	50,941	58,590	61,466
Rate (%)	34.0	36.4	33.9	33.0	32.0	31.0
PAT before Min. Int.	**151,116**	**137,266**	**142,743**	**103,473**	**124,562**	**136,876**
Minority Interest						
Reported PAT	**151,116**	**137,266**	**142,743**	**103,473**	**124,562**	**136,876**
Change (%)	-13.4	-9.2	4.0	-27.5	20.4	9.9
Adjusted PAT	**159,881**	**137,316**	**142,743**	**103,473**	**124,562**	**136,876**
Change (%)	-9.9	-14.1	4.0	-27.5	20.4	9.9

Balance Sheet						(INR Million)
Y/E March	**FY14**	**FY15**	**FY16**	**FY17E**	**FY18E**	**FY19E**
Share Capital	63,164	63,164	63,164	62,074	62,074	62,074
Reserves	360,881	340,367	275,428	192,656	193,154	193,701
Net Worth	**424,045**	**403,531**	**338,592**	**254,730**	**255,228**	**255,775**
Minority Interest	636	658	658	658	658	658
Loans	1,715	4,019	4,019	4,019	4,019	4,019
Defferd tax Liabiity	-19,717	-19,591	-19,591	-19,591	-19,591	-19,591
Capital Employed	**406,678**	**388,617**	**323,678**	**239,816**	**240,314**	**240,862**
Gross Fixed Assets	**414,795**	**448,080**	**508,080**	**568,080**	**628,080**	**688,080**
Less: Depreciation	266,951	286,929	311,594	339,174	368,555	399,735
Net Fixed Assets	**147,844**	**161,150**	**196,486**	**228,906**	**259,525**	**288,345**
Capital Work in Progress	43,158	51,594	52,824	70,474	90,474	110,474
Investments	37,749	28,134	28,134	28,134	28,134	28,134
Current Assets	**793,955**	**844,940**	**771,875**	**665,346**	**655,720**	**649,981**
Inventory	55,681	61,838	62,173	62,537	68,664	73,053
Debtors	82,410	85,219	89,115	89,636	98,419	104,710
Other Current Assets	54,375	61,808	61,808	61,808	61,808	61,808
Loans and Advances	77,594	105,150	105,150	105,150	105,150	105,150
Cash	523,895	530,925	453,629	346,216	321,680	305,261
Current Liabilities	**616,028**	**697,201**	**725,641**	**753,044**	**793,539**	**836,072**
Payables	8,051	9,208	9,533	9,589	10,528	11,202
Other current liabilities	607,978	687,994	716,108	743,455	783,011	824,871
Net Curr. Assets	**177,927**	**147,739**	**46,234**	**-87,698**	**-137,819**	**-186,091**
Misc. Expenses	0	0	0	0	0	0
Application of Funds	**406,678**	**388,617**	**323,678**	**239,816**	**240,314**	**240,862**

E: MOSL Estimates

Financials and Valuations

Ratios						
Y/E March	**FY14**	**FY15**	**FY16**	**FY17E**	**FY18E**	**FY19E**
Basic						
Adjusted EPS	**25.3**	**21.7**	**22.6**	**16.7**	**20.1**	**22.1**
Cash EPS	33.7	31.5	31.0	25.5	31.2	33.8
Book Value	67.1	63.9	53.6	41.0	41.1	41.2
DPS	29.0	20.7	27.4	19.9	16.7	18.3
Payout (incl. Div. Tax.)	130.3	112.9	145.5	145.8	99.6	99.6
Valuation (x)						
P/E	11.0	12.8	12.3	16.7	13.9	12.7
P/BV	4.2	4.4	5.2	6.8	6.8	6.8
EV/Adj. EBITDA	5.8	5.7	6.1	8.6	6.6	6.0
Dividend Yield (%)	10.4	7.4	9.8	7.1	6.0	6.6
EV /ton of Reserves	55.6	55.4	59.0	63.9	65.0	65.8
Profitability Ratios (%)						
Debtor (Days)	43.7	43.2	43.0	43.0	43.0	43.0
Inventory (Days)	29.5	31.3	30.0	30.0	30.0	30.0
Payables (Days)	4.3	4.7	4.6	4.6	4.6	4.6
Asset turnover(x)	1.7	1.9	2.3	3.2	3.5	3.7
Profitability Ratios (%)						
RoE	35.6	34.0	42.2	40.6	48.8	53.5
RoCE	34.4	34.5	40.0	37.6	52.9	57.9
RoIC	-45.5	-39.1	-41.2	-27.1	-41.0	-47.6
Leverage Ratio						
Current Ratio						
Net Debt/Equity (x)	-1.2	-1.3	-1.3	-1.3	-1.2	-1.2

Cash Flow Statement						(INR Million)
Y/E March	**FY14**	**FY15**	**FY16**	**FY17E**	**FY18E**	**FY19E**
Adj EBITDA*	**209,473**	**210,836**	**209,433**	**161,241**	**214,830**	**237,493**
Non cash exp. (income)	21,596	22,213	9,918	11,947	12,271	12,572
(Inc)/Dec in WC	2,442	6,487	-3,906	-828	-13,971	-10,007
Taxes paid	-88,264	-95,721	-73,148	-50,941	-58,590	-61,466
CF from Operations	**145,247**	**143,815**	**142,297**	**121,419**	**154,540**	**178,590**
Capex	-41,164	-49,014	-61,230	-77,650	-80,000	-80,000
Free Cash Flow	**104,083**	**94,801**	**81,067**	**43,769**	**74,540**	**98,590**
(Pur)/Sale of Investments	-13,799	9,615	0	0	0	0
Interest/dividend	64,754	52,871	49,111	39,693	28,563	24,930
CF from Investments	**9,791**	**13,472**	**-12,119**	**-37,957**	**-51,437**	**-55,070**
Equity raised/(repaid)	0	0	0	-36,500	0	0
Debt raised/(repaid)	-12,634	1,935	0	0	0	0
Interest paid	-580	-73	-207	-3,540	-3,575	-3,611
Dividend (incl. tax)	-242,430	-155,963	-207,682	-150,835	-124,064	-136,329
Other financing	2,141	3,844	414			
CF from Fin. Activity	**-253,503**	**-150,257**	**-207,474**	**-190,875**	**-127,639**	**-139,940**
Inc/Dec of Cash	**-98,465**	**7,030**	**-77,296**	**-107,413**	**-24,536**	**-16,419**
Add: Beginning Balance	622,360	523,895	530,925	453,629	346,216	321,680
Closing Balance	**523,895**	**530,925**	**453,629**	**346,216**	**321,680**	**305,261**

* Adj EBITDA is ex. OBR and including transportation/loading income

Disclosures

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